

G.D.I.G.G

10/1966

IN THE PRIVY COUNCIL

No. 7 of 1964

ON APPEAL

FROM THE SUPREME COURT OF NEW SOUTH WALES

IN COMMERCIAL CAUSES

No.3000 of 1955 & No.3001 of 1955

B E T W E E N

OVERSEAS TANKSHIP (U.K.) LIMITED  
(Defendant)

Appellant

- and -

THE MILLER STEAMSHIP COMPANY PTY.  
LIMITED and another (Plaintiffs)

Respondents

And by Consolidation Order of the Supreme Court  
of New South Wales 28th October 1963

B E T W E E N

THE MILLER STEAMSHIP CO. PTY. LIMITED and  
another (Plaintiffs)

Appellants

- and -

OVERSEAS TANKSHIP (U.K.) LIMITED  
(Defendant)

Respondent

RECORD OF PROCEEDINGS

VOLUME 1

Pages 1 to 366

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Solicitors for the Respondents

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RECORD OF PROCEEDINGS

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IN THE PRIVY COUNCIL

No. 7 of 1964

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No. 3000 of 1955 & No. 3001 of 1955

B E T W E E N

OVERSEAS TANKSHIP (U.K.) LIMITED  
(Defendant)

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- and -

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And by Consolidation Order of the Supreme Court of  
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- and -

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(Defendant)

Respondent

---

1.  
RECORD OF PROCEEDINGS

No. 1

Amended Particulars of Claim

No. 1

Amended Parti-  
culars of Claim

14th October  
1963

IN THE SUPREME COURT )  
OF NEW SOUTH WALES )

No. 3000 of 1955  
No. 3001 of 1955

B E T W E E N

THE MILLER STEAMSHIP COMPANY PTY. LIMITED  
Plaintiff

And

OVERSEAS TANKSHIP (U.K.) LIMITED  
Defendant

10

And by Consolidation Order of 26th May 1955

B E T W E E N

R. W. MILLER & CO. PTY. LIMITED  
Plaintiff

And

OVERSEAS TANKSHIP (U.K.) LIMITED  
Defendant

AMENDED PARTICULARS OF CLAIM

20

1. The plaintiff The Miller Steamship Company Pty. Limited is the owner of s.s. "Corrimal" a single screw vessel of gross 1140 net 682 tons register and at all material times the said vessel was alongside a wharf in Mort's Bay, Balmain in the waters of Port Jackson. The plaintiff R.W. Miller & Co. Pty. Limited is the owner of s.s. "Audrey D" a single screw vessel of gross 194 net 94 tons register and at all material times the said vessel was secured alongside the s.s. "Corrimal". The defendant is the Charterer by demise of s.s. "Wagon Mound", an oil burning vessel of gross 10,172 net 6,134 tons register.

30

2. The wharf mentioned in paragraph 1 hereof

No. 1  
 Amended  
 Particulars  
 of Claim  
 continued  
 14th October  
 1963

was part of the works of Mort's Dock & Engineering Co. Ltd.

3. On Tuesday 30th October, 1951 the defendant by its servants and agents acting in the course and scope of their employment was taking furnace oil into the tanks of the s.s. "Wagon Mound".

4. In the process of such taking in of furnace oil a large quantity of the said oil was permitted by the defendant its said servants and agents to escape into the waters of the said Port Jackson and into the waters of the aforesaid Mort's Bay. 10

5. The said large quantity of oil floated on the surface of the water and by its natural flow and spread and by the natural action of the tides and winds a large portion of the said oil spread to and accumulated and for a long time remained on the water under and in the vicinity of the wharf where the s.s. "Corrimal" was secured and on and about the foreshores and on the piles of the said wharf. 20

6. The said furnace oil was combustible and if ignited was highly inflammable. If ignited upon such water foreshores or piles at the time of such accumulation or at any material time thereafter the said furnace oil might or was likely to burn and spread rapidly and intensely and fire therefrom might or was likely to cause extensive damage.

7. Because of the conditions activities and circumstances appertaining in and about the foreshores of Mort's Bay at the time of the said escape and at all material times there was a danger and risk of the said oil becoming ignited. 30

8. On 1st November, 1951 the said oil became ignited and burnt and the fire therefrom spread to and burnt the s.s. "Corrimal" and the s.s. "Audrey D".

9. The said fire caused extensive damage to s.s. "Corrimal" and damage to s.s. "Audrey D" and the plaintiffs incurred considerable expense in and about repairing the said damage and were for a long time deprived of the use of s.s. "Corrimal" and s.s. "Audrey D" and the profits which otherwise could and would have been earned by the said vessels 40

and incurred other expenses and suffered other losses and detriments which they would not have incurred and suffered had they not been deprived of the use of each of the said vessels.

Amended  
Particulars  
of Claim  
continued  
14th October  
1963

10. The plaintiffs and each of them sue the defendant in negligence for damages in respect of the damage so caused to their respective vessels. The plaintiffs and each of them say:

- 10 (a) the defendant by its said servants and agents was careless and unskilful in and about and failed to take reasonable and proper precautions to prevent the said escape of the said furnace oil from the s.s. "Wagon Mound";
- 20 (b) the defendant by its said servants and agents ought reasonably to have foreseen the danger and risk of fire from the said escape of the said furnace oil in the quantity aforesaid and that it might cause a fire and that extensive damage could or might or was likely to result therefrom;
- (c) the defendant by its said servants and agents failed to take any steps to alleviate or remove or render harmless the spread and accumulation of the oil as aforesaid.

30 11. The plaintiffs and each of them also sue the defendant in nuisance for damages in respect of the damage so caused to their respective vessels. The plaintiffs and each of them say:

- (a) the defendant by its servants and agents caused and wrongfully permitted the said large quantity of oil to escape from the s.s. "Wagon Mound" in the course of the taking in of the furnace oil aforesaid;
- 40 (b) the said furnace oil after its escape was a public nuisance and the plaintiffs and each of them suffered special damage therefrom as aforesaid;
- (c) the defendant by its said servants and agents ought reasonably to have foreseen

No. 1  
Amended  
Particulars  
of Claim  
continued  
14th October  
1963

the danger and risk of fire from the said escape of the said furnace oil in the quantity aforesaid and that it might cause a fire and that extensive damage could or might or was likely to result therefrom;

- (d) alternative to (c) under this count, the said oil after escaping caused the fire and damage aforesaid.

12. The plaintiffs and each of them also sue the defendant upon its liability under the principle of Rylands -v- Fletcher for damages in respect of the damage so caused to their respective vessels. The plaintiffs and each of them say: 10

- (a) that the defendant by its said servants and agents brought on to and accumulated in the s.s. "Wagon Mound" a dangerous substance, to wit the furnace oil aforesaid and permitted the same to escape from the s.s. "Wagon Mound";
- (b) the said oil after escaping caused the fire and damage aforesaid. 20

THE PLAINTIFFS THEREFORE CLAIM that a verdict may be found in favour of the plaintiff The Miller Steamship Company Pty. Limited in the sum of One hundred and sixty-five thousand pounds (£165,000) and that a verdict may be found in favour of the plaintiff R.W. Miller & Co. Pty. Limited in the sum of One thousand pounds (£1,000) and that judgment may be entered accordingly.

DATED this 14th day of October, 1963. 30

Douglas Murray

Solicitors for the Plaintiffs,  
4, Bridge Street,  
SYDNEY.

---

No. 2Particulars of Defence

IN THE SUPREME COURT )  
OF NEW SOUTH WALES )

No. 3000 of 1955  
 No. 3001 of 1955

No. 2

Particulars  
 of Defence

22nd February  
 1963

B E T W E E N :

THE MILLER STEAMSHIP COMPANY PTY. LIMITED  
Plaintiff

And

OVERSEAS TANKSHIP (U.K.) LIMITED  
Defendant

10

And by Consolidation Order of 26th May 1955

B E T W E E N :

R. W. MILLER & CO. PTY. LIMITED  
Plaintiff

And

OVERSEAS TANKSHIP (U.K.) LIMITED  
Defendant

PARTICULARS OF DEFENCE

20

1. The Defendant admits paragraphs 1 and 2 of the Particulars of Claim.

2. The defendant denies each and every one of the allegations contained in paragraphs 3 to 9 both inclusive of the Particulars of Claim.

3. The defendant denies each and every one of the allegations contained in sub-paragraphs (a), (b) and (c) of paragraph 10 of the Particulars of Claim.

30

4. In further answer to paragraphs 1 to 10 both inclusive of the Particulars of Claim the defendant says that the facts and matters therein alleged do not disclose any cause of action in



No. 2  
 Particulars  
 of Defence  
 continued  
 22nd February  
 1963

negligence against the defendant.

5. The defendant denies each and every one of the allegations contained in sub-paragraphs (a) to (d) both inclusive of paragraph 11 of the Particulars of Claim.

6. In further answer to paragraphs 1 to 9 both inclusive and paragraph 11 of the Particulars of Claim the defendant says that the facts and matters therein alleged do not disclose any cause of action in nuisance against the defendant. 10

7. The defendant denies each and every one of the allegations contained in sub-paragraphs (a) and (b) of paragraph 12 of the Particulars of Claim.

8. In further answer to paragraphs 1 to 9 both inclusive and paragraph 12 of the Particulars of Claim the defendant says that the facts and matters alleged therein do not disclose any cause of action under the principle of Rylands v. Fletcher against the defendant. 20

9. In answer to the whole of the Particulars of Claim the defendant says that the damage alleged to have been suffered by the plaintiff was not caused by any act or omission of the defendant its servants or agents and that the same was solely caused by acts and omissions of Morts Dock and Engineering Co. Ltd. its servants and agents whereby the said Morts Dock and Engineering Co. Ltd. its servants and agents caused or permitted a fire to occur upon the surface of the oil referred to in paragraph 4 of the Particulars of Claim at a time when the said oil was floating on the sea in the vicinity of the s.s. "Corrimal" and s.s. "Audrey D." in consequence whereof the said oil was set alight and the fire therefrom occasioned the said damage. The defendant further says that the said oil was ship's bunker fuel oil of a high flash and fire point and was not an inflammable or dangerous substance and it was not a likely or probable consequence that it would by its said presence in the vicinity of the said ships at any material time render damage to the said ships by fire. 30 40

10. In answer to the whole of the Particulars of

Claim the defendant further says that the said fire resulted from supervening events which ought not reasonably to have been foreseen by the defendant.

No. 2

Particulars  
of Defence  
continued

The said supervening events are:-

22nd February  
1963

- (a) that electric welding and/or oxy-acetylene welding and/or cutting were at or about the time of the said fire being conducted on or about the said "Corrimal" and/or the said wharf,
- (b) that on the said wharf the planks thereof were sufficiently separated to permit of sparks molten metal or slag from the said welders and/or cutters to fall underneath the wharf,
- (c) that from welding and/or cutting on the said "Corrimal" and/or the said wharf sparks molten metal or slag was allowed to escape towards the surface of the oil and the water in and around the said ship and/or wharf,
- (d) that there was floating on the surface at the relevant time a wick of some substance making contact with the oil and capable of being ignited under favourable wind conditions provided one or more of the sparks pieces of molten metal or slag happened to fall on the said wick,
- (e) by virtue of the position of the "Corrimal" alongside the wharf, the structure thereof and the existence of the shoreline favourable conditions were created to prevent the said oil or some portion thereof from losing its combustible properties of causing a fire as a result of a burning wick on the surface of the oil and water,
- (f) a favourable wind existed at the relevant time to cause the said wick to smoulder, to light, to remain alight and heat the oil to its fire point.

The defendant says that each of these supervening events and the combination of any or all of them ought not reasonably to have been foreseen by the defendant.

No. 2  
Particulars  
of Defence  
continued  
22nd February  
1963

THE DEFENDANT THEREFORE CLAIMS that a verdict may be found for the defendant upon the allegations of the plaintiffs and each of them and that judgment may be entered accordingly.

COUNTER-CLAIM

If the defendant, contrary to its contentions, is found liable in respect of the damages claimed or any part thereof, the defendant claims that it is not liable in respect of the plaintiffs' respective claims and any other claims beyond an amount calculated in accordance with the provisions of Section 503 of the Merchant Shipping Act, 1894 under and by virtue of the said Act and the Merchant Shipping (Liability of Shipowners and Others) Act, 1900 and the Merchant Shipping Act, 1906.

10

DATED the 22nd day of February, 1963.

NORTON SMITH & CO.  
Defendant's Attorney,  
39, Hunter Street,  
SYDNEY.

20

No. 4  
Judgment  
10th October  
1963

No. 4

Judgment

IN THE SUPREME COURT )  
OF NEW SOUTH WALES ) Nos. 3000 and 3001 of 1955  
IN COMMERCIAL CAUSES )  
CORAM: WALSH, J.

Thursday, 10th October, 1963

MILLER STEAMSHIP CO. PTY. LTD.

v.

OVERSEAS TANKSHIP (U.K.) LTD.

30

R.W. MILLER & CO. PTY. LTD.

v.

OVERSEAS TANKSHIP (U.K.) LTD.

MR. ASH: We are now in a position to ask Your Honor to enter verdict and judgment. The matter is agreed as follows: the defendant in the action Miller Steamship Co. Pty. Ltd. v. Overseas Tankship (U.K.) Ltd., No.3000 of 1955, admits damages in the

sum of £80,000. The defendant in the action R.W.Miller & Co. Pty. Ltd. v. Overseas Tankship (U.K.) Ltd., No.3001 of 1955 - they are in fact consolidated actions - admits damages in the sum of £1,000.

No. 4  
Judgment  
continued  
10th October  
1963

10 Pursuant to s.5(3) of the Supreme Court Procedure Act, we ask that judgment may be entered accordingly in the plaintiff's actions against the defendant. Your Honor will recall there was one claim in negligence, one in nuisance and one in Rylands v. Fletcher. Your Honor found against the plaintiff in the first and third and in favour of the plaintiff on the second.

HIS HONOR: Unfortunately the papers are missing today, but I have what I wrote earlier about it in front of me.

(Mr. Ash reads latter part of judgment).

20 MR. ASH: We ask in regard to (3), that Your Honor enter verdict and judgment for the plaintiff in those amounts, and it follows that Your Honor will enter verdict and judgment for the defendant in (2) and (4). It is part of the proposed order that the defendant's counter claim be stood over, to be restored on 21 days' notice.

30 MR. HOLLAND: In the course of Your Honor's judgment, Your Honor dealt with an application by my friend for leave to amend his particulars of claim by adding a few words in a number of paragraphs. I understand from my friend that no amended particulars of claim have been filed to carry out that leave.

MR. ASH: I think that is right. Amended particulars of claim, as such, were filed, but the final qualifications of those amendments were not.

40 MR. HOLLAND: I am only concerned to have the record in order. If Your Honor's orders were subject to those amendments being carried into the particulars of claim filed in Court, that would look after the position as far as we are concerned.

HIS HONOR: Apparently I did say I would allow the amendments?

MR. HOLLAND: Yes. Your Honor had raised the question of whether you would allow the amendment at all, had raised the question of costs.

No. 4  
Judgment  
continued  
10th October  
1963

HIS HONOR: Yes. I had said I would allow the amendments.

MR. HOLLAND: That is so.

HIS HONOR: Do those amendments apply in each action?

MR. HOLLAND: Yes. Particulars of claim were filed in the consolidated action.

MR. ASH: I will undertake to file those.

MR. HOLLAND: There will not be any consequential amendments on the defendant's part.

10

Looking at Your Honor's order when this matter was made a commercial cause, Your Honor dispensed with formal pleadings. The concluding paragraph dealing with pleadings, directs the plaintiffs to deliver particulars of claim and the defendant to deliver particulars of defence. There has not been anything filed in the nature of issues. Whether that is necessary when Your Honor has dispensed with pleadings, I do not know. I know in other commercial causes with which I have been connected, there have been issues filed.

20

HIS HONOR: It is fairly commonly done. I do not suppose it is absolutely necessary, because there are no relevant Rules of Court.

MR. HOLLAND: I only mentioned it in case Your Honor thought issues should be filed.

HIS HONOR: There were particulars of claim, and particulars of defence which included a counter-claim?

MR. HOLLAND: Yes.

30

HIS HONOR: Was there any further pleading?

MR. HOLLAND: No.

HIS HONOR: No pleading to the counter-claim?

MR. HOLLAND: No.

HIS HONOR: I do not think I will make any further order.

I have noted: Having made the findings of fact and the decisions as to liability set out in the reasons published herein on 8th April 1963, and the foregoing admissions as to damages having now been made, I find in each action a verdict for the plaintiff upon its claim based upon nuisance,

40

and a verdict for the defendant on the claims based upon negligence and upon the rule in Rylands v. Fletcher.

No. 4  
Judgment  
continued  
10th October  
1964

In action 3000 of 1955, I direct the judgment may be entered for the plaintiff in the sum of £80,000; and in action 3001 of 1955 I direct the judgment may be entered for the plaintiff in the £1000.

10 In each action, by consent, I order that the hearing of the counter-claim of the defendant do stand over generally, and that it may be restored to the list upon 21 days' notice.

I note that the plaintiffs undertake to file amended particulars of claim, to conform to the amendments allowed at the hearing.

MR. ASH: And noted on p.81 of Your Honor's interim finding.

HIS HONOR: Were there any others?

20 MR. ASH: No. When Your Honor adjourned this case in 1959, to enable it to await a decision overseas in the other case, there was an order in respect of the matter of interest. I only want the benefit of recording. If I knew Mr. Holland would be here in two years' time I would not want it recorded. That agreement is still very much running and extant, and this only deals, of course, with damages. Would Your Honor note that my friend and I agree on that? It is only for the purpose of record, for  
30 greater precaution.

MR. HOLLAND: These interest orders were conditions of a stay of proceedings.

MR. STREET: Of an adjournment.

MR. HOLLAND: They were conditions imposed on the defendant upon grant of an adjournment, so that I think they operate of their own force.

HIS HONOR: I have not the order here. In its terms, does it continue to operate until payment or until hearing, or what?

40 (Mr. Holland reads order concerning interest).

MR. HOLLAND: As far as the defendant is concerned, they were conditions imposed upon the defendant for grant of an adjournment, and they still operate. I do not know whether there is any need to note anything about it ....

No. 4  
Judgment  
continued  
10th October  
1963

HIS HONOR: I think what has been said has been recorded. I do not think there is any occasion for me to do anything about it ...

MR. ASH: No. It is almost impertinent of me to raise the matter.

---

No. 5

Plaintiffs  
Evidence  
<sup>no. 5.</sup>  
Opening speech  
of Mr. Ash, Q.C.  
6th February  
1963

Case for the Plaintiffs

IN THE SUPREME COURT }  
OF NEW SOUTH WALES }  
IN COMMERCIAL CAUSES }

Nos. 3000 & 3001 of 1955

10

CORAM: WALSH, J.

Wednesday, 6th February, 1963.

THE MILLER STEAMSHIP CO. PTY. LIMITED

v.

VACUUM OIL CO. PTY. LIMITED,  
CALTEX OIL (AUST.) PTY. LIMITED, and  
OVERSEAS TANKSHIP (U.K.) LIMITED

.....

R.W. MILLER & CO. PTY. LIMITED v. SAME

MR. ASH, Q.C., MR. STREET and MR. BAINTON appeared for the Plaintiffs.

20

MR. MEARES, Q.C., MR. BURDEKIN and MR. HOLLAND appeared for Overseas Tankship (U.K.) Limited, in both actions.

---

MR. MEARES: I thought there was only one action against three defendants.

HIS HONOUR: There are two actions.

MR. ASH: The case is not proceeding against two of the defendants. We are suing Overseas Tankship in both cases. It will require an amendment at some stage.

30

HIS HONOUR: I noticed, from reading the papers, that Vacuum Oil put on defences in both actions, but Caltex Oil apparently only in one, but there may be another document upstairs.

MR. ASH: I think we discontinued against both of them. We have letters from the two defendants saying they have no objection to the actions against them being dismissed on payment of costs, which we have paid.

Plaintiffs  
Evidence

\_\_\_\_\_  
No. 5

Opening speech  
of Mr. Ash, Q.C.  
6th February  
1963

HIS HONOUR: Perhaps that may be done in some formal fashion, but you need not delay the matter now.

MR. MEARNS: We have given the plaintiffs' solicitor continued notice of an application we intended to make, to amend our particulars of defence. Whether my friend desires me to now make that application I do not know.

10

MR. ASH: Perhaps I will open first.

These are two actions being heard together. No. 3000 of 1955 is Miller Steamship Pty. Limited, the owners of a ship, the "Corrimal", and in No. 3001 of 1955 the plaintiff is the owner of a lighter. The claim, in outline, is for damages to each of these vessels, from fire, caused by a large quantity of furnace oil spilt into Morts Bay from a tanker known as the "Wagon Mound", of which the defendant company was the charterer by demise. The fire occurred on 1st November 1961, around about 2.00 p.m.

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I do not think the precise tonnages of the three ships need be gone into at this stage, but the "Wagon Mound" was 10,172 gross: net 6,134. The "Corrimal" was a much smaller ship - 1,140 gross; 682 net. The "Audrey-D" was 194 gross and 94 net.

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Nothing turns, I think, on the history of the pleadings in the matter, at this stage and I will not, unless asked to, trace them through. The fact is that your Honour, on 26th May 1955, ordered that these two actions be heard in Commercial Causes, without a jury, and since then, as has been already indicated, there is no proceeding against the first-, and second-named defendants in each action.

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I will very briefly outline the facts. Perhaps, at the outset -

HIS HONOUR: Knowing something of the other case, the Morts Dock case, may I ask whether the plaintiffs in the present actions will be resting their claim solely on negligence, or on negligence and some other cause or causes of action?



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MR. ASH: On negligence and some other causes of action. Let me say, since the matter has been raised, as your Honour knows of *Morts Dock v. the Tankships'* case, in some detail -

HIS HONOUR: I did not sit on any part of it, but I have read some judgments in the matter as they came out.

MR. ASH: In that case, as appears I think in a published judgment, evidence was given (and one almost thinks with a tacit acquiescence on both sides) seeking to show that furnace oil, in the circumstances of the case, was not a dangerous or inflammable substance. It was indeed to the interest of the then plaintiff, for all I know, so to allege. There will be abundant evidence in this case that that is not the case and that in short, the test laid down, so far as the negligence question is concerned, by the Privy Council in that very case will be grasped and developed in this case, and it will be contended on the evidence to be adduced in this case that the damage was foreseeable in the ultimate, from the point of view of that case, by the defendant. To put it quite bluntly, on the evidence to be adduced in this case, where other considerations apply, it is sought to obtain a completely different finding of fact.

I have two copies of the chart, which I hand your Honour straight away. The centre of the activity is Mort Bay, shown on the middle left of the chart. On Monday, 29th October 1951, the "Wagon Mound" tied up at what is called the Caltex wharf, which your Honour sees just near Ballast Point. Shortly after tying up in the morning it started to bunker, to take on furnace oil, and it took it on from barges sent across by the Vacuum Oil Company from Pulpit Point. The location of Pulpit Point is immaterial, but it came across in barges from there.

The bunkering of that ship went on from before noon on Monday, the 29th, till about 4.00 a.m. on Tuesday, 30th October. The "Wagon Mound", in fact, cleared and sailed later that morning, around about eleven or quarter past eleven on Tuesday the 30th.

The method of bunkering, broadly, was that the barge came alongside the ship. Pipes were connected from the barge to valves slightly inboard of the ship and on the particular barge, the last one to

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fill, the Vacuum barge I think it was, called by that name, the pipe used was a fairly large one by ordinary lay standards - a six-inch diameter pipe pumping over some 300 gallons a minute of furnace oil, into the ship. I might say - my friend spoke to me about this matter - that I will agree that the flash point of that oil so bunkered, was around about 170 degrees Fah.

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10           At about 4.00 a.m. on Tuesday the 30th, the  
bunker oil being pumped in was found to be flow-  
ing out of the forepeak tank of the "Wagon Mound"  
on to the decks, down the ship and into the  
Harbour, and in very substantial quantities.  
In the next hour or two after that, the ship  
developed a slight list and what oil was apparently  
left on the decks, or most of it, was emptied into  
the Harbour too. The Chief Engineer of the "Wagon  
20           Mound", who was present originally when the  
bunkering started, was not present throughout the  
whole of it and did not return to the ship until  
the early hours of the Tuesday morning. The  
officer-in-charge of the bunkering at the relevant  
time, which is the last load, the last barge,  
which I should have said commenced round about  
half past one or a quarter to two on the morning  
of the 30th, had advised how much could be pumped  
aboard and it was, in fact, as it shown by the  
facts, far too much and, indeed, at a talk later  
30           on, after the incident had been discovered and  
the "Wagon Mound's" Captain was present, he  
accepted responsibility for the spill. The  
"Wagon Mound" after this was possibly completing  
discharging into Caltex that morning.

continued

40           In 1951 - and my friend and I will, from  
time to time, lapse into the present tense -  
there were in Morts Bay, a number of boatsheds,  
repair places and general light industry  
operations. By far the most substantial, and  
certainly not light industrial operation, was  
the Morts Dock area itself. I have here, to be  
identified by a witness to be called, a rough  
plan of the installations around Morts Bay at  
the relevant date. (Handed to His Honour). I  
cannot say that that plan is drawn to scale.  
The chart, of course, is.

By far the most substantial was the Morts  
Dock. Your Honour will note the central matter

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of the case, really, Sheerlegs Wharf. That is No.13 on the plan I have just tendered. It is marked to scale on the chart, although not named. It is to the left of the Yeend Street ferry wharf, marked "Ferry Wharf" at the north of Mort Bay. Your Honour can see the slipways, the main dock, and coming around in a south-easterly direction there is Joiners Wharf, so-called, and at the time there was a ship, the "Bulolo" berthed there.

MR. MEARES: Joiners Wharf does not appear on the map. 10

MR. ASH: That is quite right. I think it appears on the chart. It is to the north-west of the Thames Street wharf. It is to the left of the ferry wharf on the northern side of the Bay.

Morts Dock, at that stage, was, of course, regularly engaged in repair work to ships, which involved constant oxyacetylene torch and electric welding. Those particular operations involved the inevitable projection of sparks, molten metal, and slag and these would be, of necessity, dropped in some quantity into the water below. Further, the factual situation at that time was that in this Bay, debris was constantly around, debris of all sorts - floating timber, cotton waste and rags - and it was a normal concomitant of the operations at the Bay. That sort of debris floats on the foreshores anyhow, but particularly so where ship repairing is going on and things are tossed over from time to time. 20 30

The "Corrimal" had been with Morts Dock, being repaired, I think for some eight or nine months, not all the time at Sheerlegs Wharf, but it had been tied up at Sheerlegs Wharf for some few months before the fire, and was having extensive and expensive repairs done to it. The "Audrey D" at the relevant time, was alongside it. That was the situation at this time, in Mort Bay.

On Tuesday, the 30th, at 8.00 a.m., at Mort Bay, when the men came to work there was, in fact, oil extending over the whole foreshores of that Bay where the Morts Dock was placed. I should add that I think Morts Dock, as your Honour probably knows, is in liquidation at the moment and is not being actively operated as a dock and has not been for some time. The oil was not thick. 40

It was very thick. It is described as one to two inches on the water. It was very thick over the slipways, piles of the wharf and the shore. In a sense, it was trapped under the Sheerlegs Wharf, between the back shore or retaining wall, and the "Corrimal". It necessarily varied in actual position with the rise and fall of the tides, but in that particular area, by reason of the proximity of the "Corrimal" it was in a sense trapped there. With the rise and fall of the tide from then on, the piles of the Sheerlegs wharf became thickly coated with the oil as, indeed, did the slipways and other bits of shore, with the tide going out. In addition, there was impregnation, covering, of items of debris there. The oil remained there; on the water itself in the Bay, it thinned out a bit, but it virtually remained much the same around the foreshores right up to the time of the fire and, indeed, apart from that which ultimately burnt, long after it. It was described as unprecedented in the experience of people with a thorough knowledge of the area, in its thickness, persistence, and intensity. It stayed there through the Tuesday and the Wednesday, and a fire did not occur until about 2.00 p.m. on Thursday, 1st November. At that stage, leading up to it, the "Corrimal's" mast was horizontally being worked upon on the wharf; that is to say, it was lying horizontally and there were then men cutting and burning with the oxyacetylene torches in and about the mast and allied operations. That was in the normal process of the Morts work on the mast and other portions of the ship.

HIS HONOUR: This is being done, is it, by Morts Dock Engineering Co. people?

MR. ASH: Pty. Limited. My friends corrected me. There is no "Pty."

The fire was noticed on the water, under the wharf, in the form of a burning circle of flame, which expanded, and within times necessarily varying in the evidence, within two or three minutes a conflagration took place, running along almost the whole length of the wharf. When I say "along the wharf" I mean along underneath it and, of course, the wharf itself subsequently ignited and itself was damaged. That was the subject of another action.

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The burning oil down there rapidly spread and the flames shot up past the deck of the "Corrimal", over the top of it, ignited the top of it and went across to the "Audry-D" which was, at that time, on the other side. Not unnaturally, the place where flame on the wharf was seen was amidships roughly, and not unnaturally, pretty well under where the burners and welders were working.

HIS HONOUR: I do not quite follow what you said about the "Audrey-D" being on the other side. The other side relative to what point? 10

MR. ASH: The other side of the wharf.

HIS HONOUR: You have the "Corrimal" at the wharf and the "Audrey-D" beyond it, away from the wharf?

MR. ASH: Yes, almost adjacent to it, if not adjacent to it, and at the moment of the fire amidships on the other side. "Corrimal" was lying on the port side and, at the moment of the fire, the "Audrey-D" was roughly amidships on the other side. The fire came up, with dense black smoke, right up over the edge and over the top of the "Corrimal", and ignited the mast, I think, of the "Audrey-D". I have here, strangely enough, a photograph taken by someone there, of the fire within a moment of its inception. I do not think anything turns on it, but it might assist Your Honour. When I say "moment of inception" I hope I will not be held to that. It might have been five minutes after. 20

MR. MEARES: The question that may be in issue is when it was taken, but I do not mind my friend tendering it to assist your Honour. 30

MR. ASH: I cannot give the precise number of minutes. On my instructions, it would be within a very short time of the ignition. It is not suggested, for instance, that that was two hours afterwards or an hour afterwards. That is taken from the south-western corner of the Bay.

I omitted to describe the Sheerlegs Wharf and the rough measurements. The "Corrimal" itself was some 230ft. long. The Sheerlegs Wharf was a bit more than twice that length, I think approaching 700ft. The Sheerlegs Wharf stood, at high tide, 10ft., 11ft., or thereabouts, above water level, and at low tide, of course varying, some 5 ft. or so more. It had a number of piles, naturally, in 40

in front of it, in about perhaps 30 or 40 feet going along at the back of it and in the main part it had an irregular stone wall there and at the Yeend Street end, that did not extend right to the back and stones and rocks were visible at that end and there was, underneath the wharf, a substantial amount of cross-members, by way of support. I do not think there is any dispute on the measurement of these things. Indeed, I do not think there is much dispute about the start, the origin, of the fire.

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10 HIS HONOUR: I do not ask counsel to tell me now, if they do not wish to do so, but I will be interested to know of course, whether in this case there will be a contest on the question whether the escape of the oil was something caused by acts or omissions of the "Wagon Mound" people and further, whether there will be a contest as to whether their conduct was careless. In the 20 Morts Dock case, as I understand the judgment of the trial judge, Kinsella, J., it was not disputed - or at any rate not much disputed - that the "Wagon Mound" people were responsible for the escape of the oil and that their conduct was careless. Then, of course, the big contest was whether it was actionably careless, depending on foreseeability and so forth. I do not know whether in the present case, all that area of 30 fact will be contested or not. It is a matter for Mr. Meares rather than for you. I do not know whether you have discussed it with him.

MR. ASH: We have not. We have had but a cursory talk. It may be profitable. I do not know. I have no basis for saying this but it may be profitable to have a talk with my friend on these matters.

40 MR. MEARES: The difficulty I will be experiencing possibly, were we to consider an admission proper to make, would be the wording of the admission. Your Honour appreciates that.

HIS HONOUR: Yes, I do. I am not suggesting that counsel have a duty to make admissions, but I did wonder whether there was a field of the area of fact on which admissions could be made simply to save time, if matters are not really in dispute.

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MR. ASH: I think, with respect, it would bear exploring with my friend. I think it would be proper to say that both he and I would hope the case would be as short as possible. While dealing with the matters, there are four matters agreed upon. They do not touch upon the precise matter. The first thing agreed upon, and I give your Honour this in written form later, is that the defendant was the charterer, by demise, of the "Wagon Mound", an oil-burning vessel of -

10

MR. MEARES: I have not had time to examine this but it may be we can make these admissions. But I think it is proper to say that we suggested that there were certain findings of fact made in Morts Dock v. "Wagon Mound", and I think 12 in all which should be admitted between us. That was the extent of my request. This was met by, in my recollection, a reply that the plaintiff was prepared to agree on one to four but not five to twelve. That being so, there has been no formal agreement as to admission of these first four matters. The letter was based upon a quid pro quo basis. I should have to consider the effect of these four standing alone and as to whether we are now prepared to make them.

20

MR. ASH: I was under a misapprehension. I thought four matters were agreed upon.

HIS HONOUR: I think what you started to read will undoubtedly be admitted. But you had better leave it.

MR. ASH: I will. To come back - the fire severely damaged the "Corrimal" and, to a lesser extent, the "Audrey-D", in a very substantial way. It will be proved before your Honour here, in regard to this furnace oil, that it is inflammable and combustible material and, when spilt like this, spreads, moves on water and banks up with the tides, and is highly inflammable, subjected to any ordinary heat for a very small time. Its inflammability, of course, depends upon the circumstances. I tell my friend straight away, it is not suggested if you put out an ordinary house basin of water and drop some furnace oil on it and light a cigarette on it, it is inflammable in the sense that petrol might be.

30

40

MR. MEARES: What do you mean by "ordinary heat"?

MR. ASH: I am only outlining. It is a very negligent act, in our submission here, to release it in the circumstances of this ship at Ballast

Point, at Mort Bay, with debris and industrial operations above it. Any ignition of it is a probable thing in the circumstances, certainly in the legal sense foreseeable, and if ignited it is highly inflammable, in the sense that it spreads, as it did, as I have described it and as the photographs shows it in that confined area.

10 It is impossible to indicate all the facts in the opening. The confining within that Sheerlegs area, between the wharf and the ship, is another relevant factor, of course.

20 Coming to the specific causes of action, as it were, to answer your Honour more specifically, we first, of course, sue in negligence and we start, of course, with a full acceptance and recognition of the recent decision in the Morts Dock case, by the Privy Council. Our case is that the oil was released from the "Wagon Mound" by a new word which will be used in this field from now on, I suppose, carelessness; that it was clearly foreseeable that a fire would be likely to occur, and that this kind of damage would occur in the circumstances.

MR. MEARES: I protest against that submission. It is in denial of the case made out in the particulars of claim, and I refer particularly to para.9.

30 MR. ASH: I do not think that is so. The risk of damage by fire in such circumstances -

MR. MEARES: This may be a matter of substance. The point I want to make, if I may, is that the gravamen of my friend's charges in paras. 9A, B & C. is our knowledge that this oil was highly inflammable, and also para.5. That is the case we are prepared to meet.

40 MR. ASH: If my friend presses that point, I will deal with that when I finish these submissions. It is put to your Honour, to bring this to the analogy of cases which come before this Court, that this act was just as negligent as driving on Parramatta Road at 60 miles an hour, in one class of case, and having men work at height, without scaffolding, in another class of case.

We sue in nuisance; on the release of the oil. We claim that it was a public nuisance

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from which our client suffered special damage and, if the case turned upon the point, we would argue that the test of damage in nuisance is left untouched by the Privy Council decision.

We also sue on a Rylands v. Fletcher basis.

In the matter of damages, the claim, as your Honour sees, is for £165,000.

HIS HONOUR: Are you going to say that the defendant caused this oil to be brought on to its ship and then let it escape?

10

MR. ASH: Yes.

HIS HONOUR: Then it raises the question as to whether it was a dangerous substance, to bring in the Rylands v. Fletcher sort of rule. I suppose you would say the question would be an objective one as to whether it was dangerous, and not a question as to whether the defendant's people knew it was dangerous. You might get up against Mr. Meares' objection again, that the particulars do not quite put it that way.

20

MR. ASH: Yes. I will deal with that. In the field of damages, the substantial claim of course is in respect of the "Corrimal", which is quantified on the particulars at £165,000 in respect of direct and consequential damage. The defendant - and my friend personally has spoken to me about this - I think I am right in saying has not had the opportunity of investigating this in full yet, and it is put that we go ahead, subject of course to your Honour's agreement at this stage, without damage, and I would agree with that if your Honour approves. It is not, of course, a case where one deals with it normally in two compartments, where one finds liability and refers it somewhere else for assessment. It is an integral part of the case. Both sides might get together and reach some agreement on quantum.

30

HIS HONOUR: I could not refer it elsewhere, could I, unless the parties agreed that somebody would arbitrate on damages?

40

MR. ASH: For a number of reasons unrelated to your Honour's considerations, I think there has been a lack of time, with one of my friend's juniors ill. It may be possible to work out a formula under the Arbitration Act, but it was proposed to deal with it in this way, if your Honour approves. We are endeavouring to reach some agreement on it.

The only other matter to refer to is that it may be that your Honour may wish to have a view of this area as the evidence proceeds and an arrangement could be made subject to your Honour's wishes.

10 HIS HONOUR: It is not a place with which I am very familiar at all, nor am I really familiar in any detail with what changes have taken place in recent years in this place. Of course one knows, in general, that the Morts Dock Company situation has changed, but just what changes have taken place in a physical sense, I do not know.

MR. MEARES: I appeared in the matter, in the Land & Valuation Court, and I know, I think, quite clearly what has been changed. I would like to say that Kinsella, J. had a view in the other case.

20 HIS HONOUR: I would like to look at it. I was wondering whether I should do that at a very early stage or later on.

MR. ASH: Probably at a fairly early stage. There are one or two witnesses I would like to get in, if possible, but I think it conceivable that your Honour might wish to have an earlier and a later view, as the evidence develops. I can, of course, agree with my friend as to the differences. For instance, I do know that some of the wharf was repaired. We can agree on that.

30 HIS HONOUR: Perhaps you and Mr. Meares, or your juniors, could talk about it during the luncheon adjournment and we might make a decision at two as to when I might go out there?

MR. ASH: Yes. That is the case to be made out. I do not know whether my friend wishes to develop any objection to the form of it. If not, I will proceed with the first witness subject, if he wishes and your Honour sees fit, to a short adjournment, to try and agree on some facts.

40 HIS HONOUR: I will look at the particulars. I think they are substantially the same in the two cases.

MR. ASH: I have here all the photographs which were Exhibits in the previous case, and I think the Exhibits are in Court. Perhaps it might be

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wise if I interrupted your Honour to hand them to you. I had overlooked those in turning over a page.

The first one, which is marked on the back at the top with a red "1" is a pantograph showing the North shore of Mort Bay from a casing at the head of the graving dock, stretching up to the eastern end of the Sheerlegs Wharf. It is taken from Joiners Wharf on the western shore of Mort Bay. I will have typed for your Honour a statement of what I am now saying, that your Honour will have before you the references. These were taken some six years or so after the fire.

10

MR. MEARES: Would it not be best if we could agree on the evidence given by the topographer in the former case, as describing those photographs and showing from where they were taken?

MR. ASH: That certainly might be one of the heads of agreement.

HIS HONOUR: You say the extreme wharf area to be seen on the first photograph is the end of Sheerlegs?

20

MR. ASH: That is so. I think the last one with the little supports underneath it is the extremity of the Yeend Street ferry wharf.

HIS HONOUR: Yeend Street is, so to speak, around the corner from this point?

MR. ASH: Immediately so, yes.

HIS HONOUR: And further along in that area, not shown on the photographs but lying, so to speak, to the left of the bridge? -

30

MR. ASH: Yes.

HIS HONOUR: - That would be where the -

MR. ASH: The Caltex Wharf and "Wagon Mound" were.

HIS HONOUR: Where the bunkering was taking place?

MR. ASH: Yes.

MR. MEARES: You have to turn sharp left around the corner.

MR. ASH: Mr. Street informs me that the white building you see underneath the Bridge is Goat Island. I can inform your Honour that the Yeend Street wharf is only separated by about two feet from the end of the Sheerlegs Wharf.

40

The second one is taken from the entrance to Mort Bay. It shows the Caltex terminal, the Yeend Street Wharf and the eastern end of the Sheerlegs Wharf, taken from the entrance to Mort Bay. It shows more on the left centre, but that is rather blurred and more specific photographs will be shown. It shows you that area which you cannot see around to the left in the previous one.

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MR. MEARES: The crane in "2" would be the crane shown in the pantograph, on the top.

MR. BAINTON: The one on the right is on the Sheerlegs Wharf and the one on the left is at the graving dock.

MR. ASH: No.3 shows, on its extreme right-hand side, the Yeend Street ferry wharf and then the length of Sheerlegs Wharf.

HIS HONOUR: All this is Sheerlegs, is it? (referring to photograph No.3).

20

MR. ASH: Yes, past the little white piece, the Yeend Street passenger ferry, right down to the end of those piles, is the Sheerlegs wharf.

HIS HONOUR: Was the "Corrimal" about the middle of it?

MR. ASH: More up the right-hand end of the photograph, more toward the end of the Bay. I think the fire photograph gave a rough indication of the position of the bow of the "Corrimal", as against the Sheerlegs Wharf, if you can see it.

30

No. 4 is a photograph of Sheerlegs Wharf, taken from the extreme eastern end, the Yeend Street end, and looking west along the surface of the wharf. To identify it, at this stage there is a ship in the dry dock which is shown on the chart, the one with a little steam coming out of it.

The next one, No.5, shows the arrangements of piles, of cross-members underneath the Sheerlegs Wharf. It is taken from toward the Yeend Street end of the wharf.

40

No.6 is really a close-up of a section of that. I think it indicates, in some cases, the damage caused by the fire.

Nos.7, 8 & 9 can all go in together. Those are close-ups. They show gaps between the planking, and the extent to which, in places,

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the fire burnt the planking. I think the wharf was repaired in some degree after the fire, but not in all cases.

(Chart, map, small photograph and nine other photographs tendered; to be marked EXHIBITS A, B, C, & D.1 to D.9 respectively.)

MR. ASH: With your Honour's permission, I will add a description to that.

MR. MEARES: So far as "C" is concerned I will object. I suggest that your Honour does not mark "C" and "D" until we have some talk. 10

(Marking of Exhibits "C" and "D" cancelled.)

(Short adjournment)

MR. ASH: During the adjournment my friend and I have had a discussion. We will endeavour to make the pleadings in this case more explicit in their descriptive nature and prepare documents and tender them later. As to the question of admitting facts my friend, and I too for that matter, require a little longer. That may well bear some proof. 20

No. 6

B. A. Cullen-  
Ward

6th February  
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Examination

No. 6

Evidence of B. A. Cullen-Ward

BRIAN ALISTAIR CULLEN-WARD, Sworn, examined as under:-

MR. ASH: Q. What is your full name? A. Brian Alistair Cullen-Ward.

Q. I think you reside at 81, Chalmers Road, Strathfield? A. That is right.

Q. And you are a service station proprietor? A. That is right. 30

Q. In October 1951 you were the Chief Bunkering Officer for the Vacuum Oil Company? A. Yes.

Q. And I think you had been with them for some 15 years, at that stage? A. Yes.

Q. Over that period had you been engaged quite a lot in the bunkering of ships on behalf of Vacuum Company, with furnace oil and fuel oil? A. Yes.

Q. Did you go aboard the "Wagon Mound" on the 29th October, the Monday, 1951? A. I did. 40

Q. Was that at Ballast Point, moored to the Caltex Wharf there? A. That is correct.

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Q. You knew in advance, of course, that you were going there, and you went across by ferry, I think? A. That is right.

No. 6

Q. When you got on board, did you go to see anyone? A. The Chief Engineer. (Objected to - rejected.)

B. A. Cullen-  
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10 Q. First of all, at the time who was the officer of ships to whom you directed yourself when it came to be acting for Vacuum Oil in the bunkering of ships with fuel oil? A. The Chief Engineer. (Objected to - allowed.)

Examination  
continued

Q. I think you answered "The Chief Engineer"? A. Yes.

Q. On this occasion did you go aboard the "Wagon Mound"? A. I did.

Q. Did you go to any particular cabin? A. Yes, the Chief Engineer's cabin.

20 Q. Was there anything on the door? (No objection). You went to the Chief Engineer's cabin. Was there any writing on the door of that cabin? A. Yes.

Q. What was there? A. "Chief Engineer".

Q. Did you enter the cabin? A. I did.

Q. How many people were in there? A. From memory, I think two.

Q. Was one of them sitting down at a desk, or anything? A. The man I spoke to as Chief Engineer was sitting at a desk. (Objected to.)

HIS HONOUR: There was a man sitting at the desk.

30 MR. ASH: Q. Was he dressed? A. Yes. He had on his uniform.

Q. Did you ask him who he was? A. I asked for the Chief Engineer and he spoke to me. (Objected to.)

HIS HONOUR: It is admitted that he asked for the Chief Engineer.

MR. ASH: Q. Did anyone reply to that query? A. The gentleman sitting at the table.

40 Q. What did he say? (Objected to.) A. He said he was the Chief Engineer. (Allowed.)

HIS HONOUR: Q. The man at the desk said he was the Chief Engineer, did he? A. Yes.

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MR. ASH: Q. Did you ask him anything about the quantity of oil? A. Yes.

Q. What did you ask him? (Conversation formally objected to; allowed so far as relevant.)

MR. MEARES: Statements by an officer of a ship are not admissions against the owners.

HIS HONOUR: It all depends on what is the statement, I think.

MR. MEARES: They would not be admissible, with respect, to prove facts in issue. (Marsden's British Shipping Laws (1961?) Vol.4, par.366 p.272 read. Conversation allowed on basis that if some is outside scope of probable authority, His Honour will ignore.)

10

MR. ASH: Q. I think the question was: What did you ask the Chief Engineer on the question of quantity of oil? A. I asked him how many barrels ne required.

Q. What did he say? A. He gave me the figure but it is so long ago I am a bit hazy on the amount he required.

20

Q. Was the word "tons" mentioned at any stage? A. I believe it was, yes, 950.

MR. MEARES: I would not mind his refreshing his memory on that.

WITNESS: I think 950 was the figure.

MR. ASH: Q. 950 tons, or about 950 tons? A. About 950 tons.

HIS HONOUR: Q. You said you asked him how many barrels were required. Did you say barrels of what, or just leave it at barrels? A. Barrels of furnace oil.

30

Q. That is what you were talking about? A. Yes. We were delivering furnace oil.

MR. ASH: Q. And he said he wanted about 950 tons? A. Yes.

Q. I am talking now about general procedure. You say you are familiar with the general procedure of bunkering, in your experience with Vacuum, and you said you dealt in such things with the Chief Engineer in boats? A. That is correct.

40

Q. In the regular practice, who would be the officer on board who ordered from you or indicated to you on board, when you went on, how many tons or barrels of furnace oil, or anything, was required? (Objected to.)

HIS HONOUR: I do not know. I do not think you need this at the moment.

MR. ASH: Q. Did you set about doing certain things then? A. I asked the Chief Engineer where he would like to take the fuel. He indicated the position where we would pull up the barges.

Q. How many points of fueling -

MR. MEARS: We might save time, if my friend has the Privy Council book, if he led until I stop him.

MR. ASH: I will do that.

Q. I will put the questions to you in leading form. That furnace oil is brought across from Vacuum in such a situation, and was on this day? A. Yes.

Q. And you used two barges that day, did you? A. Yes.

Q. The larger one, called The Vacuum? A. That is right.

Q. And the smaller one which you think was No.F-17? A. That is right.

Q. Are both those barges equipped with hoses and pumping equipment? A. Yes.

Q. This is not in the transcript. You were saying that you ascertained from the Engineer into which inlet to pump the oil. I think it appears later there were three intakes on the "Wagon Mound"? A. That is right.

Q. And the barges are brought alongside, the bargemen handle the pipes up to the deck? A. That is right.

Q. Of the ship, the "Wagon Mound", and they are connected by the ship's crew to the valves inboard of the "Wagon Mound"? A. Well, the ship's crew are actually the barge crew. The ship's crew disconnects the flange, that is the blank on the end of the pipe, and the barge crew couple up their hose to the ship's point.

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Q. After you went on board on the 29th, apart from one visit to the Customs office you remained on board until the bunkering was finished?

A. That is correct.

Q. After you saw the Chief Engineer, did you set about calling out to the barge and having the pipe connected up, and that sort of thing?

A. Yes, as soon as the barge came alongside.

Q. Did the Chief Engineer remain on board throughout the bunkering, or leave? A. He left.

10

Q. Before he left did you have a conversation with him, in the presence of a third person?

A. Yes, I did.

Q. Who was that third person? A. The First Engineer. (Objected to.)

Q. What happened? Did he say anything to you?

A. The Chief Engineer told me that he was going ashore and that I would be in the hands of the First Engineer, which he introduced to me.

(Objected to - pressed - allowed.)

20

Q. You say he introduced you. Did he call a man up? A. He called a man in.

Q. What did he say to you? A. "This is the First Engineer". (Objected to - allowed.)

Q. What else did he say in relation to that?

A. He said that the First Engineer would look after me while he was absent.

Q. Did he say anything about his cabin?

A. He told me to use his cabin as I required.

Q. And did you, in fact, use the Engineer's cabin thereafter? A. I did.

30

Q. During the bunkering? A. I did.

Q. I think you had a great deal of paperwork and forms and things to fill in during the bunkering? A. Yes.

Q. And you occupied the cabin for that purpose?

A. That is correct.

Q. I do not think it is in dispute that there were seven loads altogether, pumped in here?

A. That is right.

40

Q. Early on, after the Chief Engineer had left, did you go to see the man who had been introduced to you as the First Engineer? A. I did.

Q. Where did you go to see him? A. I think that would be around about some time after the second barge.

Q. Where, was it on the ship? A. Yes.

Q. Did you go somewhere? A. I went to his cabin.

10 Q. What happened there? (Objected to - allowed.) A. He informed me that he was going ashore and called in another man and told him that he would be looking after the fueling operation. (Objected to: - allowed.)

Q. Did he say who he was? A. The Second Engineer. (Objected to.)

Q. Did he introduce you in the same way, in his presence? A. That is correct.

Q. As the Second Engineer. Was that man, the Second Engineer, an Englishman, as far as you could see? A. No.

Q. What was he? A. Puerto Rican.

20 Q. From then on, for the remainder of the barges, did that man, identified to you as the Second Engineer, the Puerto Rican - what part did he play in connexion with the taking on of the oil? A. He was the man doing all the ullages of the tanks and telling me when to do the pumping and stop pumping.

HIS HONOUR: Q. Doing the what? A. Ullaging.

MR. ASH: Q. The ship's tanks? A. Yes.

30 Q. Was he the man with whom you dealt in respect of the loading from then on, until the end? A. Yes.

Q. Did you, as each barge was brought along, personally perform, or were you present at the performing of any operation, measuring, or anything like that? A. Yes. It was my duty to go aboard each barge, take the soundings and temperature of all fuel in the barges and take samples.

Q. You did that? A. Yes.

40 Q. And made a record of it? A. Yes.

MR. ASH: It is agreed that the flash point of this oil being bunkered on to this ship was in the vicinity of 170 degrees Fah.

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Q. Prior to the last load coming aboard - which was when, roughly? A. In the early hours of the Tuesday morning.

Q. The 30th. After it was brought alongside and before it was pumped in, did you have a conversation with that Second Engineer? A. I did.

Q. What was that conversation? (Objected to - allowed.)

Q. Did he ask you anything? A. He asked me how many barrels we had aboard the barge and I told him. 10

Q. What was the figure you gave him?  
A. Approximately 1,300 barrels.

Q. What did he say? A. He said they could take it.

Q. Did you set about then pumping that in?  
A. We did.

Q. That was pumped in amidships and went into the forepeak tank? A. That is correct.

Q. You were in the Engineer's cabin? A. I was.

Q. About four o'clock in the morning, did you go down to the barge? A. Yes. There was a fine spray of furnace oil coming out of the for'ard scuppers. 20

Q. The for'ard scuppers of the "Wagon Mound"?  
A. Of the "Wagon Mound".

Q. Did you then go aboard? A. I did.

Q. What did you find? A. I found the oil coming out of the forepeak tanks.

Q. HIS HONOUR: You said "tanks" in the plural?  
A. Tank.

Q. Which is it? A. Forepeak tank.

MR. ASH: Q. Describe how it was coming out the structure of the deck at that point. A. Well, the forepeak tank is above deck level, with a hatch on it, and oil was bubbling out the top of it. 30

HIS HONOUR: Q. At this point of time, of which you are now speaking the hose had been taken away, had it, or was it still attached to the inlet?  
A. I think it was still coupled up. The engines were stopped pumping though.

MR. ASH: Q. I think you described this forepeak tank as a hatch cover arrangement on the deck, and the hatch cover was where the oil was coming out of; was there anybody up there when you saw this situation? A. Nobody. 40

Q. Would you describe a little further - this trunk? Is this a sort of projection from the top of the tank on to the deck? A. Yes.

Q. Is it circular or rectangular? Anyhow, it projects up. It carries down through the deck, into the tank itself, and the oil was coming up through that and flowing out on to the deck? A. That is true.

Q. And there was nobody there at the time? A. No.

Q. What did you do? A. I tried to get some of the crew to put plugs in the scuppers, to stop the oil going into the Harbour. I went looking for the Engineer that was in charge of that operation.

Q. That was the Second Engineer? A. Yes.

Q. The man you spoke of as the Puerto Rican? A. Yes.

Q. As you went looking for him, did you find him? A. Yes.

Q. I think he was coming along the deck towards you? A. That is right.

Q. Did you say anything to him? A. I told him there had been an overflow.

Q. Do you recall what he said? A. From memory, he mumbled something in a foreign language but I could not understand.

Q. Did you notice anything about him? (Objected to: pressed: allowed.)

Q. Did you notice anything about him? A. Yes. To me he smelt as though he had been drinking.

Q. He smelt that smell of drinking? A. He smelt of liquor, to me.

Q. Did you notice anything about his gait, walk; or speech? A. Well, he was not too steady on his feet.

Q. What did he do. A. He then went and got the crew to block the scuppers.

Q. You say you had been in the Chief Engineer's cabin right through. Was his bunk still made up? The Chief's, yes.

Q. As far as going back to his cabin was concerned, he had not come back to his cabin at

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that stage? A. He had not been on board while I was there.

Q. Had you seen the First Engineer at any stage during the night? A. No, I did not.

Q. I think you remained on board. What happened down on the barge? I think the hoses were uncoupled and stowed away? A. Yes.

Q. And you took soundings and found there were some 6,400 gallons left? A. That is correct.

Q. You made a record of that at the time? A. Yes. 10

HIS HONOUR: Q. You have given one figure in barrels and another in gallons. How do I relate them one to the other? How many gallons to the barrel, in other words? A. Depending on the gravity, but I think it is somewhere in the vicinity of 42.

MR. MEARES: Q. Is that Imperial or United States? A. United States. I think that is what they take it on.

MR. ASH: Q. 42, United States. A. Yes.

MR. ASH: I know what it is, Imperial. 20

MR. MEARES: You say it, if you know.

MR. ASH: About 35, Imperial.

HIS HONOUR: He said he told his man that was said to be an Engineer, that he had 1,300 barrels, and now he says when he checked his barge afterwards, he had 6,400 gallons left. Unless there is some correlation between the figures, they do not mean anything.

MR. ASH: Q. Did you, after making this measurement, go back to the cabin and sit down and compile the rest of the figures and wait for the return of the Chief Engineer? A. I did. 30

Q. When you went below, to the barge, to take this measurement, did you see what had happened, so far as the overflow from the oil was concerned? That is at that stage, before you came back to the cabin? A. Well, at that stage there was just a fine spray coming out of the scuppers.

Q. On the wharf side, was there quite a quantity on the wharf and drums which were stacked on the wharf? A. At that time, I did not see those. The barge was on the other side of the ship. 40

Q. You went back to the cabin. When was it that you finally left the ship? A. It would be around about six o'clock in the morning.

Q. Did the Chief Engineer come back between that incident around about four o'clock, and six? A. Yes. Well, I waited for him, to get a signature for those papers.

10 Q. You waited for him, to get signatures on the documents. Do you recall seeing the Second Engineer up till the time when he joined you later in the cabin? You had seen him on the deck, running up to get some men, and I think you saw him later in the Engineer's cabin. Had you seen him in the meantime? A. From memory, he came down on the barge with us to take the final soundings.

Q. At what rate does the pump on that Vacuum pump? A. About 100 tons an hour.

20 Q. And there are about 200 gallons to the ton? A. Yes.

Q. 200 Imperial to the ton. Does the hose used for pumping have a diameter of about six inches? A. Yes.

Q. That is, the hose off The Vacuum on that occasion? A. Yes.

30 Q. When the Chief Engineer came back, you gave him the papers and got his signature. In the cabin there was there anyone else present when you were speaking to him? A. When I spoke to him it was not in his cabin. It was amidships, just about on the catwalk, with the Captain, Mr. Merv. Smith, the shipping manager for Caltex, the Chief Engineer and myself. (Objected to; more questions to be asked.)

Q. How did you know he was the Captain?  
A. I had been introduced by Mr. Smith -  
(Objected to.)

Q. Mr. Smith you knew? A. I did.

40 Q. And you knew him for some time, as the Shipping Manager of Caltex? A. That is correct. (Objected to.)

Q. How was this man who was introduced to you by Mr. Smith, dressed? A. He was in an officer's uniform.

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continued

Q. Was he a very young man, a middle-aged man, or what? A. I would say a middle-aged man.

Q. Did you happen to hear how the Chief Engineer addressed him? A. I think he called him "Captain".

Q. Did that man speak at all during this interview, when he and Mr. Smith and the Chief Engineer were there? A. He had a conversation with Mr. Smith.

Q. In your presence. A. In my presence.

Q. First of all, did you speak to the Chief Engineer? A. I did.

10

Q. At that stage. What did you say to him? A. I told him there had been an overflow. (Objected to.)

Q. There had been an overflow from the forepeak tanks? A. That is correct.

Q. What did he say or do, the Chief Engineer? (no answer)

Q. Did he send for anyone? A. Yes, the Second Engineer.

Q. The puerto Rican? A. The puerto Rican.

20

Q. Did he come? A. Yes.

Q. Was there a conversation between them? A. There was.

Q. Could you understand it? A. No.

Q. It was in a foreign language? A. It was.

Q. Following that, did this man who you say was the Captain, say something? A. Yes. (Objected to - rejected.)

Q. Is it customary when pumping oil in, to pump the barge completely dry, or do you usually leave some oil in it? A. Usually there is a small amount left in which we cannot get out.

30

Q. Would you look at that document? (Handed to witness; objected to - allowed.)

Q. Apart from the printed portion, whose writing is on that document? (No answer.)

Q. Whose writing is most of the writing on that document? A. Mine.

Q. Is your signature on it? A. It is.

Q. Did you give that document to anybody that you have spoken of, to sign? A. Yes, the Chief Engineer.

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Q. Did you see him sign it in your presence?  
A. I did.

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Q. In the bottom left-hand corner?  
(No answer.)

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(Abovementioned document, m.f.i. 1.)

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10 Q. When did you get that signed? A. That was when he came back to the ship, before I left the vessel.

Examination  
continued

HIS HONOUR: Q. Somewhere around about 6.00 a.m.?  
A. At six o'clock in the morning or thereabouts.

MR. ASH: Q. At six it was pretty light, I suppose?  
A. Starting to come light.

Q. Did you notice any oil outside the ship?  
A. Yes. I did.

20 Q. Whereabouts? A. Over the drums stacked on the wharf, between the vessel and underneath the wharf and the foreshores.

Q. Was there any on the side of the ship?  
A. There was, all over the superstructure on the bridge.

Q. Between four o'clock and when you left, did the ship stay on an even keel or develop a list? A. It developed a list.

Q. In which direction? A. To starboard.

Q. Which way was that? A. Towards the shore.

30 Q. It was tied up on the starboard side?  
A. Yes.

Q. Did that have any effect on the oil on the deck? A. It did. The oil on the forepart of the deck overflowed, because of the volume that was trapped.

Q. Are you able to say how long the forepeak tank was spilling over? A. No, I would not.

Q. You cannot say? A. You cannot say, no.

CROSS-EXAMINED:

Cross-  
examination

40 MR. MEARES: Q. It is not unusual to heat furnace oil artificially, before it is pumped into bunkering tanks? A. Yes.



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Cross-  
examination  
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Q. How do you heat it? A. They have steam coils in the tanks.

Q. Of what? A. Of the shore tanks.

Q. What do you heat it up to, as a maximum?  
A. Well, I would not be able to answer that question, what is the maximum temperature, but depending on the gravity of the oil. Some of that oil is very very thick and will not pour. But the temperature, from memory, on the fuel we delivered, were around about -

10

Q. I do not want that. You were dealing with the heating of it. A. Yes. They have steam coils in the tanks and they heat them up to a temperature where it will flow.

Q. May I take it that with furnace oil, it might be necessary to heat up the oil so that you would not be able to put your hand over the flow, because the oil was too hot? A. Yes, I suppose they would.

Q. You had been, had you, with Caltex, at the time of this incident, for quite a period of time?  
A. Not with Caltex, with Vacuum.

20

Q. At the time of the spillage of which you have spoken, you had been with Vacuum for just on 20 years? A. No; I think it would be more or less 15 years, from memory.

Q. Well, at the time of giving evidence in 1958, before Kinsella, J. you had been with Caltex for how long? A. Vacuum -

Q. Some twenty years? A. I would not like to be held to that, but I thought it was round about 15 years. Whatever was said down there - the time has gone fast.

30

Q. Might I read your evidence and see if you agree with it? At p.24:

"Let me get this quite clear. You told us, did you not, that you had been with Vacuum Oil for some time? A. Just on 20 years."

A. That would be correct.

Q. "Q. I suppose in that time you have had very great experience of bunkering, have you?"  
Your answer was that in that time you had had 10 years of bunkering experience? A. Yes.

40

Q. In the past ten years you had not been engaged solely or primarily in bunkering vessels?  
A. No. I had many jobs to do.

Q. But had had had considerable experience of it, when I asked you that question in 1958?  
A. Yes.

Q. And from the time you started with the oil industry until you left it, you had had ten years of bunkering experience? A. That is correct.

10 Q. Apart from your experience with bunkering, what other experience have you had in the oil industry? A. I think I had been through about every department that they had.

MR. MEARES: Q. You had had quite considerable bunkering experience before this incident took place in 1951, of course? A. Yes.

20 Q. I suppose prior to this incident you had been concerned in working in and around various storage places of oil and petrol and kerosene?  
A. Yes.

Q. And may I take it that prior to 1951 you actually had from time to time been employed at a storage depot? A. I had.

Q. Which storage depot or storage depots had you been employed at for Vacuum prior to 1951?  
A. I was the Depot Superintendent at Coonabarabran and I was relieving Superintendent ---

30 Q. For how long roughly? A. I would say 18 months. It is going back a long while but I would say from 18 months to 2 years - somewhere in that vicinity. I had relieved at Wellington Depot.

Q. For how long - a short time? A. That was about a month. I was Pool Superintendent for the Pool Petroleum at Mudgee. That took in Mudgee and Dunedoo.

Q. Was that a storage depot? A. Yes; that is bulk storage.

40 HIS HONOUR: Q. Of petrol or other things as well?  
A. Petrols, kerosenes - everything. They were the only places where I was actually in charge. The other times I have worked at Pulpit Point - that was the main installation.

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examination  
continued

MR. MEARES: Q. At Pulpit Point there is situated the main bulk storage depot of Vacuum? A. Yes.

Q. And at Pulpit Point there is a storage depot for storing fuel, oils and all the derivatives of oil? A. That is correct.

Q. And you had had a very substantial experience there prior to 1951? A. Yes, but as I said I was not in charge there. The other places I mentioned I was in charge.

Q. What were your duties at Pulpit Point? 10  
A. Bunkering Officer.

Q. Did that involve receiving the oil into your storage depots? A. No.

Q. It involved bunkering ships lying alongside Pulpit Point, did it? A. That is correct.

Q. And lying alongside the storage depot at Pulpit Point? A. At Pulpit Point Wharf, yes.

Q. And the wharf is directly adjacent to the Vacuum storage depot? A. That is correct.

Q. And, similarly, the Caltex wharf where the Wagon Mound was being bunkered by you on the days in question is immediately adjacent to the Caltex Storage depot? A. Yes. 20

Q. Had you had experience at any other storage depots apart from the ones you have mentioned, prior to 1951? A. Put it this way: I had used the Shell Company's storage; I had been at Shell at Gore Bay for bunkering purposes.

Q. Did you spend very much time there? A. During the war quite a lot of time at Shell Company, and the same with the Navy Storage Depot at Woolloomooloo and Chowder Bay. 30

Q. And you had spent quite a considerable time there? A. While the ships were fuelled, yes.

Q. Why were you spending time at those areas? A. It depended on where the fuel that was available for bunkering was situated.

Q. Would you, as a representative of Vacuum, bunker vessels from Shell or Navy storage tanks? A. As we were required, depending on which depot had the furnace oil in it. 40

Q. So may we take it that during the war you spent a considerable amount of time at those storage depots bunkering in the same way as you were bunkering at Pulpit Point? A. That is correct.

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Q. You were bunkering there, amongst other things, furnace oil of the same kind and same characteristics as you were bunkering the Wagon Mound with? A. Mostly furnace oil, yes.

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10 Q. And when you were at Pulpit Point, the main part of your duties was the bunkering of furnace oil? A. That is correct.

Cross-  
examination  
continued

Q. You, in 1951, at the time of bunkering the Wagon Mound, were of the opinion that fuel oil was perfectly safe? A. That is correct, yes.

Q. That was an opinion you had, with all the experience which you have related? A. Could I say something on that?

Q. Would you answer my question? A. Yes. Yes.

20 Q. You were of the view that the discharge of the oil that you observed on the morning of the 30th October was quite safe?

MR. ASH: I did not hear that question.

MR. MEARES: I will withdraw it and put another one.

Q. The discharge of the oil which you observed and which you have related on the morning of the 30th October did not concern you from a safety point of view? (Objected to; allowed.)

30 Q. The discharge of the fuel oil that you observed on the morning of the 30th October did not concern you at all from a safety point of view? A. Well, it did really, because on returning to the office I rang the Maritime Services.

Q. Was the only concern you had from a safety point of view that it could cause pollution? A. Yes.

40 Q. And, therefore, -. And that was the only reason that you were concerned about it and the only reason you reported it - because you were worried that it could cause pollution? A. Yes, and also there was work going on at the dock next door. I went down to the little wharf between the dock and the ship and there was a large quantity of oil floating on the harbour at that time.

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Q. I put this to you: Was the only reason you were worried about this spillage because it polluted the harbour? A. Yes.

Q. And you were, of course, aware that this ship had spilt oil immediately adjacent to an oil storage depot? A. Yes.

Q. And that that depot contained tanks of petrol and materials more inflammable than fuel oil? A. Yes.

Q. Did you, before you left the wharf alongside the Caltex ship, give any warning of this escape of oil to any officer at Caltex? A. Yes, the Shipping Manager, Mr. Smith. 10

Q. When did you warn him? A. As soon as he came on board that morning.

Q. What time was that? A. That would be before 6 o'clock.

Q. A matter of minutes or a quarter of an hour? A. I would not like to say what time he got aboard. I saw him when - - - 20

Q. And you told him of the spillage of the oil? A. Yes.

Q. And you never mentioned it to anybody else prior to that? A. No.

Q. And what you did with Mr. Smith was simply to inform him of the spillage and that is all? A. Yes.

Q. The oil that you saw on the water was black in colour, was it not? A. Yes.

Q. And you would not be able to see the water through the oil? A. No, I would not say that. It was not in that great a quantity where I was looking. 30

HIS HONOUR: Q. You mean if it is thin enough you can see the water? A. No. Wherever there is oil you cannot see the water because it is black, but where I looked from the dock to the side of the ship there was oil there. What was underneath the wharf I could not tell you.

MR. MEARES: Q. But where you saw the oil you could not see the water underneath it? A. That is true. 40

Q. And I suppose with a film of oil of this type that was spilt, even though that was one sixteenth of an inch or less, you would not be able to see the water underneath? A. No.

Q. And, of course, once you get the black discolouration on the water and the inability to see the water underneath it, then it is quite impossible to determine the thickness of the layer of oil on the water? (Objected to; allowed.)

HIS HONOUR: You mean that it is impossible, simply by looking at it to say how thick it is?

MR. MEARES: Yes.

10 Q. You would agree it is impossible, looking at the oil on the water, to be able to say whether it is thick or whether it is thin?  
A. That is true.

Q. A ship will assume a list immediately, will it not, if weight is unevenly transferred? (Objected to; rejected.)

Q. You have had a very vast experience in bunkering ships, have you not? A. Yes.

20 Q. And have you observed that, as you fill or empty one side or the other, so the ship will list as the weight is being reduced or added? A. That is so.

Q. I want to ask you this, and you might be able to explain it: Was there any bunkering or emptying operation being conducted between 4 o'clock and 6 o'clock? A. Any bunkering operations?

Q. Or emptying operations? A. Yes; the Wagon Mound was discharging cargo ashore.

30 Q. And she was discharging cargo after 4 o'clock, was she? A. Yes, to my knowledge she was. She pumped right through the night, although that had nothing to do with my operation.

Q. Are you able to swear that she was discharging after 4 o'clock or not? I want you to be careful? A. That is a teasy one, because I was not taking any notice. I was not in a position. I know the hoses were coupled.

40 Q. May I take it that after you had asked the crew to close the scuppers, to plug the scuppers, thereafter the Second Engineer, the Puerto Rican, got the crew on to doing this - is that correct? A. Yes.

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Evidence

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No. 6

B. A. Cullen-  
Ward

6th February  
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Cross-  
examination  
continued

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B. A. Cullen-  
Ward

6th February  
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Cross-  
examination  
continued

Q. Did you see, after the spillage and before you left, apart from plugging the scuppers, anything being done to pick this oil up - collect this oil? A. Yes; I think they were trying to scoop it off into a drum.

Q. Into a drum? A. Into drums.

Q. And there were quite a number working on this? A. Yes, that is correct.

Q. And when you left, at 6 o'clock or thereabouts, the ship had assumed a list to starboard? A. That is correct. 10

Q. And you saw no oil on the port side of the Wagon Mound? A. That is correct.

Q. And she was lying facing in, as if she was going to round into Mort Bay with her starboard side to the wharf? A. Yes.

Q. And if oil had been on the port side of her, you would have noticed it, of course? A. Yes.

Q. And you never saw any oil at 6 o'clock, either forward or aft of her? A. I would like that question again. 20

Q. You never saw any oil at 6 o'clock either forward of the Wagon Mound or aft of her? A. Yes, I did.

HIS HONOUR: Do you mean on the ship or off the ship?

MR. MEARES: Q. Forward of the Wagon Mound? A. That means off the ship?

Q. Yes, off the ship? A. Yes, I saw oil on the water.

Q. Take the stern of her. Was there any oil further astern? A. No. I did not look astern; I looked forward 30

Q. Forward of the Wagon Mound was there any oil? A. There was.

Q. Could you give us any idea of it? A. It was spread on the water between the bow of the Wagon Mound and Mort's Dock.

Q. How did you leave the area? A. I went up through the main gate and down to the wharf on the outside of the property of Caltex. There is a little ferry wharf there and I went down to catch the ferry there at the wharf. 40

Q. You would agree from your experience, would you not, that those working in and about storage depots are very conscious of fire hazards?

A. Definitely.

Q. And are required to observe certain regulations? A. That is correct.

Q. And are trained as to fire hazards? A. Yes.

Q. From oils and so forth? A. Yes.

10

Q. And you saw this oil on the morning of the 30th being discharged for a matter of seconds?

A. Do you mean discharged - - -

Q. Escaping for a matter of seconds? A. Yes.

Q. I think at the time you observed the escape there was a severe southerly blowing?

A. That is correct.

RE-EXAMINATION:

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Cross-  
examination  
continued

Re-examination

20

MR. ASH: Q. You were asked about the temperatures of oil going into the ships. Was there any heating of this oil into the Wagon Mound? A. No.

HIS HONOUR: You had better not leave that as it stands because I do not quite understand. You said: "Was there any heating of this oil into the Wagon Mound?"

MR. ASH: Q. The bunker oil you delivered from "The Vacuum" was not artificially heated before it went in? A. No; it was more or less atmospheric temperature I believe - somewhere in the vicinity of between 60 and 80 degrees.

30

HIS HONOUR: Q. I thought you spoke of a practice that sometimes was followed, of heating it in Vacuum's own tanks? A. Yes, when required, depending on the ship when it came in.

Q. In this case it would have come from Vacuum's tanks into the barge, would it? A. Yes.

Q. And then eventually into the Wagon Mound? A. Yes. Certain oils shipped from overseas are all of different gravity and those oils, if they are a heavier type oil, are preheated. Other

40



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Re-  
examination  
continued

Q. But you say in relation to this particular oil that went into the Wagon Mound, that it was not artificially heated in the tanks before delivery into the barge? A. No, that is correct.

MR. ASH: Q. You were asked whether the furnace oil which escaped was safe and you said "Could I say something?" - do you recall that? A. Yes.

Q. What did you want to say? A. It depends on what you term safe. You take a petrol - let me put it in my own way, if you don't mind. Petrol - we would never smoke near petrol, but on the barge the men would smoke and not fear any explosion. That is what I mean by safe. 10

Q. Do you mean safe in all circumstances and in all conditions? (Objected to; argument ensued; rejected.)

Q. I think you said that at 6 o'clock or at some stage you saw no oil on the port side? A. That is correct, yes.

Q. Which side was the barge moored? A. On the port side. 20

Q. And was it moored there when you got the spray of oil? A. That was earlier on; that was round about 4 o'clock. But since then they plugged the scupper up and that stopped the oil coming over on that side.

Q. When you saw it at 4 o'clock, was the oil going through the scupper? A. It was.

Q. On both sides? A. Yes.

MR. ASH: It is not suggested by the defendant that any oil spilled in the area came from any discharge operations from the Wagon Mound to the shore. 30

MR. MEARES: Well, I am not in a position of seeking to establish the escape of oil.

MR. ASH: I appreciate that.

Q. Your task at the barge end was to connect the pipe up to the valves, as I think you said? A. That is right.

Q. And you were told how much oil to put in by the ship's officer? A. That is correct. 40

Q. And apart from watching your pipe and seeing it had no leak, you had no other concern as to when to stop or - you just did what you were told?

A. Yes, that is correct. (Witness retired.)  
(Luncheon adjournment).

AT 2.0 p.m.

No. 7

Evidence of L. I. Sharp

Plaintiffs  
Evidence

No. 7

L. I. Sharp  
6th February  
1963  
Examination

LANCELOT IVOR SHARP: Sworn, examined as under:

MR. ASH: Q. Your full name is Lancelot Ivor Sharp? A. Yes.

Q. And you reside at 241 Balmain Road, Leichhardt? A. I do.

10 Q. You are now a timekeeper and accounts clerk at Sydney Slipway and Engineering Co.? A. Yes.

Q. In October 1951 were you the Industrial Officer at Mort's Dock? A. That is right.

Q. And you were there the day the fire occurred of 1st November 1951, and days before it? A. That is right.

20 Q. First of all, might I show you exhibit B? This is a sketch plan of the various spots in Mort Bay in 1951, and you see here there are numbers identifying the places marked in Mort Bay where Mort's Dock was operating? A. Yes.

Q. Can you tell me of the nature of the work done, first of all at the Adelaide Steamship Co. Ltd.? A. The company would carry out - finish its repairs to - - - (Objected to; rejected.)

30 Q. Put your mind to this particular time, October 1951, and speak as to what you observed happening there. A. At that particular period the Adelaide Steamship Co. - - - (Objected to; allowed.)

WITNESS: The period we are speaking about is 5th November 1951?

MR. ASH: Q. The 1st and the days before that. I want to know what activities were the Adelaide Steamship Co. regularly engaged in at that time? A. Repairs to their own vessels only.

40 Q. Were they normal ship repairs? A. Yes, normal ship repairs, carried out while vessels were under survey.

Q. Did they involve welding and oxy work? (Objected to).

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Examination  
continued

Q. What sort of work did they involve?  
A. General ship repair work. Might be involving work on the hull, deck or super structure or inside the vessel's holds itself - engine room repairs - the general run of ship repair work.

Q. What tools or instruments would be used in and around the ship or on the wharf?

A. Practically any metal trade you could mention would be involved at some time or other on that work. 10

Q. Would there be any tools producing flames, sparks or burning materials? A. Yes; on odd occasions there would be burning and welding operations carried out.

Q. What is used for that? A. Electric welding is carried out with a holder, in which is fixed an electrode, and the oxy cutting and welding is carried out with a unit carried by the hand, operating by oxygen and acetylene. 20

Q. No.2 is marked as a sail loft? A. No.2 was Harry West's sail loft and flag works, and No.3 was a small slipway, I think also belonging to Harry West,

Q. Would any industrial operations go on there? A. No welding would be carried out at either of those two establishments.

Q. Any burning, abrasive or flame operations of any sort there? A. Not in that area.

Q. No.4 is described as Chapman's Dock? A. It was originally Chapman's Branch of Mort's Dock Engineering Co.; it is now the Sydney Slipway at which I am employed. 30

Q. In 1951 were there any operations being carried on there? A. Yes. Exactly the same as now - the slipping and repairing of vessels in this area, an area to the left of the figure 4. In 1951 there were two floating docks immediately in that vicinity, a little to the right of the wharf, and repair work would be carried out at the wharf right up against the figure 4. 40

Q. Was there any burning of any nature in those operations? A. It would be quite possible, yes.

Q. Of the same type? What sort of burning operations would be carried on? A. General ship repair work. It would depend whether it was over the side of the ship or on deck.

Q. Would there be any burning in the operations? A. Yes, quite possibly.

Q. What sort of burning? A. Oxygen and acetylene and possibly electric welding also.

Q. Were there any blow lamps ever used at any of these operations? A. Not on ships afloat I would not think.

Q. Were they used for any painting? A. No.

10 Q. No.5 is marked "Palmolive-Colgate's"?  
A. Yes. That is the site of the Colgate-Palmolive factory.

Q. Was that an industrial place? What did they do there? A. They made soaps and shaving cream and various commodities like that, but there were no heavy industries out there at all.

20 Q. Do you know if there was any heating or burning or hot work there? A. There are steel tanks on the water front where the figure 5 is, but they appear to me to be only storage tanks and I very much doubt whether any burning or heating operations would take place.

Q. No.6 is the Sydney Ferries? A. No.6 is the Sydney Ferries repair yard.

Q. Is that repair work of the same type? A. Yes, but almost entirely wooden vessels. There would be very little burning or welding done there.

Q. Some but little? A. Some but little - almost negligible.

30 Q. What went on at No.7, the boat shed?  
A. There is a small boat shed owned by Beatty or Robinson. It was a yard where they built small wooden launches or perhaps fishing boats.

Q. Any hot work there at all? A. The only heating work I could envisage would be the heating of pitch and tar to caulk the decks, and that would be done above the water line on the foreshore.

40 Q. No.8 is the Thames Street ferry wharf - that is an ordinary passenger ferry wharf? A.Yes.

Q. Nos.9, 10, 11, 12, 13 were the Mort's Dock installations? A. Yes.

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Examination  
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continued

Q. I will deal with those separately. There is the Yeend Street ferry wharf and the Caltex Wharf?  
A. There is no burning there and there certainly would not be any at the oil discharge wharf.

Q. In regard to Mort's Dock, can you give us any idea of the height of the Sheerlegs Wharf above the water at high tide and what it was like underneath? How high would it be from the water at high tide? A. At a guess, about 12 feet.

Q. We have seen from photographs a number of piles at the front. Going in under those piles, under the wharf, is there any wood work apart from the piles? A. Yes. 10

MR. MEARES: That is not disputed.

MR. ASH: Q. The cross members extend fairly well across the wharf? A. Yes.

Q. It goes in about 40 feet, into the part underneath it, which is in the main a stone retaining wall? A. Yes.

Q. Most of the length of the underneath part of the wharf? A. Yes, that is correct. 20

Q. That retaining wall is not completely straight, but it goes in --- A. It wanders in and out to conform with the contour of the land.

Q. On the Yeend Street end the retaining wall does not extend right up to the end of the wharf - there is some shore there? A. Yes.

Q. Ordinary shore, with sand and stones or rocks and things lying on it? A. At low tide it is often exposed in there. 30

Q. And sand and some big stones and small rocks lying there? A. Yes.

HIS HONOUR: Q. You are speaking there of rocks and so on which are under the decking of the wharf are you? A. Right on the bottom of the harbour bed. Right up against the water line. They are under the wharf and partly beyond the wharf.

Q. Extending beyond it also? A. Yes.

MR. ASH: Q. How long were you at Mort's Dock? A. Thirty one years and ten months. 40

Q. And you are still in the bay? A. Yes; on the opposite corner of the bay now.

Q. You have had a few years to observe the conditions in the bay as regards the tide and the debris that goes into the bay? A. Yes.

Q. How would you describe Mort Bay as regards the free passage of tides and water? A. There is no free passage. At the north western corner of the bay there is the entrance to the dock. When the dock was closed it formed a dead-end pocket of that bay.

10 Q. I show you a copy of Exhibit A. When you say the dead-end pocket of Mort Bay, which is here, what area would be covered by what you say is a dead-end pocket? There is the dock. A. That is the graving dock. Do you mean what area would be covered by floating debris?

20 Q. You said there was a dead-end pocket at the end of the dock. What was the extent of that dead-end pocket and how far, if at all, along the shore either way did it run and that sort of thing? A. Heavy accumulations of flotsam used to come right up into the head of the dock. It is not shown very clearly there, but the dock head extended out 20 feet beyond the casing. That there is stonework and the casing would be about the end of that, under the letter "i" in "engineering". The dock gate would be about there (indicating).

30 Q. What sort of flotsam and jetsam? A. Pretty varied. It ranged from floating timber, vegetables cast overboard, or washed in from the street, dead animals - all sorts of stuff you could find there after heavy rain.

Q. Did you ever get any boxes? (Objected to). A. There was all sorts of imaginable articles used to collect up there.

40 Q. You mentioned timber. Could you elaborate on that at all? What sort of timber or shapes of timber? A. Some might even be small sticks, perhaps a piece of a packing case or even a short baulk of timber that might have fallen off a wharf or been washed off the foreshores further around.

Q. What was the position around the slipways around the Sheerlegs Wharf area - did you get debris there? A. At the entrance of the slipway yes, but to a lesser extent - not on the Sheerlegs side so much; it was fairly clear there.

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Examination  
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Examination  
continued

Q. Did the tides make a difference to it? Did it come and go with the tides or not? A. Yes. It might lie about for a day or so and then it would go and stay away for days.

HIS HONOUR: Q. You just said something about debris accumulating at the slipway. Which slipway do you mean - the one near Sheerlegs? A. Yes, between where it says "Mort's Dock and Engineering Co." - a little to the right of that, where there are some lines drawn out into the bay; that represents a wharf and two slipways. 10

MR. ASH: Q. Have you noticed any effect of the wind or varying winds on floating objects in Mort's Bay? A. Most of the rubbish used to come with a northerly or nor-easterly - and a southerly wind would tend to do the same.

Q. Both of them? A. Yes.

Q. Do you remember coming to work on Tuesday, 30th October, a couple of days before the fire, at 8 o'clock in the morning? A. That would be about 2nd November would it? 20

Q. The fire was on Thursday, the 1st, and I am taking you back now to two days before that, Tuesday the 30th? A. I had the dates mixed up; I thought the fire was the fifth.

Q. It was Thursday, 1st November, about 2 o'clock we are told? A. Yes.

Q. I am talking about two days before that, when you came to work at 8 o'clock on Tuesday the 30th? Do you remember that? A. Yes. 30

Q. What did you see, if anything, on the fore-shores of the bay when you came to work there? A. A very heavy deposit of oil all around the dock head and extending along the northern wall of the boiler shop across the slipways and right across to the Sheerlegs Wharf.

Q. You were mainly in the office, of course, as your headquarters during the day? A. Yes.

Q. During that morning you went around to the slipway and later that morning went up to the Sheerlegs Wharf itself? A. That is correct. 40

Q. Did you then see the position in and about the Sheerlegs Wharf with the oil? A. Yes. I was ordered by the management to go over and make an investigation.

Q. What was the oil like there? A. Very heavy, like it was at the entrance to the dock.

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Q. What time was it? A. In the middle forenoon.

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Q. You went up to Sheerlegs? A. Yes.

Q. It was pretty thick, like the rest of it you said? A. Yes. I was ordered by the management to go - - -

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Examination  
continued

10 HIS HONOUR: Q. Tell us what you saw? A. The oil was very heavy at the entrance to the slipway, in the building berth and underneath the Sheerlegs Wharf.

MR. ASH: Q. What do you mean by heavy? Could you deal with its colour? A. Yes; it was principally very dark and at the edges, where the water had been lapping up against the foreshores, it was a sort of yellowy colour as if it was beginning to froth.

20 Q. Could you give any estimate of its thickness as it lay on the water? A. It didn't lie evenly on the water. In some cases it was sort of piled on itself and in others it was not so thick; but you could not see the water through it.

Q. Could you give me any idea of its thickness? A. In parts it would be a couple of inches thick.

Q. And it would vary from that? A. From that down to very thin.

Q. The office is really behind the Joiners Wharf - is that right - the headquarters' office building? A. The head office, yes.

30 Q. And you were sent around, you say, to investigate it? A. Yes.

Q. And in the time that you had been in Mort Bay, had you ever seen any condition to compare with this - anything like the same? A. Nothing even remotely resembling it.

Q. Were any of the men prevented from working because of it? A. Yes. On that morning - I was not present at any of the discussions but I know the men - - - (Objected to; rejected.)

40 Q. You were the Industrial Officer? A. Yes.

Q. What did your functions include, about men working or not working? A. That did not come under my province exactly; that was more a matter for the Works Manager and the foreman concerned.



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Examination  
continued

Q. You said there were some discussions. Did anything happen after that? I don't want to know anything you were told; I only want to know anything you noticed or saw yourself? A. I know that there was - - -

Q. Do you know from what you saw or what you were told? A. From what I saw. I know that burning and building operations were suspended for at least two days.

HIS HONOUR: Q. Where was that? A. On the vessel "Corrimal".

10

MR. ASH: Q. Do you know anything about the workers further back, away from the Sheerlegs Wharf, along the slipway area? (Objected to).

HIS HONOUR: Q. If you saw men who were working knock off work or something of that sort you may be able to tell us about that, but we do not want you to tell us things you know from discussing the matter with fellow employees or anything of that kind. A. I quite understand, Your Honour.

20

MR. ASH: Q. You have described the oil around to the Sheerlegs. Did it go right to the end of the Sheerlegs? A. It went right to the Yeend Street ferry wharf.

Q. And coming around the bay, back, did it go around the foreshores of the bay back past the dock and up past Joiners Wharf? A. Are you still referring to Tuesday morning?

Q. Yes. A. Not until later in the day. It worked back along the Joiners Wharf later on.

30

Q. Was it a solid mass in the bay or clear in the middle? A. It was clear in the middle. It was concentrated on the foreshores.

Q. Did you notice it at all on the woodwork, the piles of the Sheerlegs Wharf, either then or later on during the few days? A. Yes; I noticed it particularly on that morning.

Q. And what was its condition on the piles of the wharf? A. The tide was falling during the morning and of course it was deposited on the piles and it was quite thick and it was hanging in what you could describe as curtains.

40

Q. Going on from there, during the Wednesday and Thursday was there any change in the oil on the piles? A. A slight change, yes. It was much thinner by Thursday than it was on Tuesday.

Q. I think you were over in the office when the fire started? A. That is correct.

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Examination  
continued

10 Q. What is the first you knew of it? You saw some men running or moving? A. I can explain it satisfactorily, I think. I was in the upper storey of the main office with the paymaster and there was a commotion on the dock head, which is to the left of the main office, and, naturally looking out the window, we saw a large crowd of workmen running down the dock towards the dock head and looking down the bay. I immediately left the main office and hurried across to the dock head to see what the commotion was, and saw the fire was under way.

Q. Did you see flames? A. My word.

20 Q. What were they burning? A. They were burning from the water. It appeared from my viewpoint as if the water itself was afire, which is impossible - it is impossible for water to be afire. From the surface of the water up to and through the deck of the wharf there were fierce flames burning between the "Corrimal" and the foreshore.

Q. Between the "Corrimal" and inside the wharf? A. The bank.

Q. Are you familiar yourself, after your years of experience, with the operations of oxy welding and electric welding? A. Fairly cognisant with it.

30 Q. What have you to say about that operation at that period, generally going on in the Mort's Dock and Sheerlegs Wharf? Did it go on or not? (Objected to.)

Q. At that period, in October 1951 and, indeed, for a year before it if you like - I am getting the practice of whether oxy burning and electric welding was a feature of work on Mort's Dock, generally speaking? A. Yes, it was a common feature.

40 Q. Was it a feature of work on the Sheerlegs Wharf? A. Yes, for many years.

Q. How long, roughly, had the "Corrimal" been in the hands of Morts Dock? A. Several months at that stage.

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Examination  
continued

Q. Was it tied up at the wharf all the time or in other parts? A. It was in other parts.

Q. It was at Joiners Wharf originally and then it went to the slipway area? A. Into the slipway itself.

Q. And then to the Sheerlegs? A. I think it was in Balmain Dock at one stage too.

Q. And it was at the Sheerlegs for some time before the fire? A. That is right.

Q. Could you give me any idea? A. Perhaps two or three months at least. 10

Q. Morts was giving it a pretty good overhaul? A. Yes, it was a major overhaul - practically a new bottom was put in the vessel.

Q. Oxy burning - could you describe it? What is done? What does the oxy torch do? A. The oxy acetylene plant is usually used for cutting - cutting plate. (Objected to: argument ensued.)

Q. Have you seen oxy welding going on? A. Hundreds of times. 20

Q. Oxy cutting? A. Yes.

Q. Electric welding? A. Yes.

Q. All hundreds of times? A. Yes.

Q. When an oxy torch is doing cutting work, what appears? What is the effect of it? A. As soon as the metal under the torch becomes hot enough for the cutter to penetrate, the molten metal is blown away in fine sparks.

Q. What is the slag? A. Slag?

Q. Yes. A. It could be - - - (Objected to.) 30

WITNESS: I could not give you a technical description.

MR. ASH: Q. You say molten metal is blown away in sparks? A. Yes, and the higher away from the ground, the more the area of sparks. If you are low to the ground, the area of sparks is less.

Q. What about electric welders? A. Electric welders throw sparks but not to the extent an oxy cutter does.

Q. Have you been on the Sheerlegs Wharf when oxy cutting is done? A. Yes. 40

Q. And does all the molten metal fall on the wharf or, without any lack of care, do they fall through the wharf or over the wharf? A. Usually there is some protection underneath the area of work, either a sheet of corrugated iron or a wet bag, to prevent the sparks igniting the woodwork. If you are cutting on the side of the vessel, naturally the sparks fall straight into the water.

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Examination  
continued

10 Q. On the wharf, even though the material is there, do the sparks always fall on it? A. It would be possible for some to miss and go outside that area.

Q. And if so, where does it go? A. It might go on the wharf or it might go down a crack between two planks.

20 Q. Have you ever seen men working there on oxy cutters without a corrugated iron or a bag under them, notwithstanding that it is not the regular thing to do? A. Yes, in disobedience of their foreman's orders.

Q. Whether disobedient or not, is that a fact—that you have seen that at different periods going on? A. Yes, I have.

Q. And on many, many occasions? (Objected to.)

Q. Have you seen it more than once?  
A. I would say so.

30 Q. Taking a period of years during your time there, how often? Did it happen rarely or quite frequently? A. It is hard to say now, but I would say it has happened often.

Q. You mentioned the north east wind earlier, in connection with the tides? A. Yes.

Q. Were north eastern winds frequent or rare or what, in Mort Bay? A. In summer months it is the prevailing wind.

40 Q. You mentioned debris and you mentioned timber and dead cats and fruit or vegetables. Have you ever seen any softer material of any nature, particularly while a ship is tied up?  
A. Yes.

Q. What sort of soft material? A. Discharge from the ship's lavatories, sometimes rags.

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Examination  
continued  
Cross-  
examination

Q. What sort of rags? A. Old cleaning rags or old clothing. It is hard to find words to describe the many varied things that did come into the dock area.

CROSS-EXAMINED:

MR. MEARES: Q. Are you quite certain of the facts you have sworn to this afternoon in evidence?

A. Yes.

Q. Are you? A. I wouldn't have stated them otherwise.

10

Q. One of the facts I think you stated, did you not, was that on the Sheerlegs Wharf welding was suspended for at least two days - is that correct?

A. As far as I remember now.

Q. No. Is it correct? A. I should say it was correct.

Q. You said a moment ago you were certain of it, didn't you? A. I said I knew it was suspended for two days.

Q. You said you were certain of that, didn't you? A. I think I said certain.

20

Q. Are you certain? A. Whatever I said was - - -

Q. Are you certain that welding operations were suspended for two days on the Sheerlegs Wharf when you saw this oil? A. As nearly as I can recall after this long time, I would say so, yes.

Q. As nearly as you can remember is one thing but certain is another. Are you certain, was my question? A. I still think I am certain.

Q. Would you be prepared to swear - - A. I have sworn.

30

Q. Just a moment - that in truth welding operations were only suspended on the morning of the Tuesday (sic)? What is your answer to that?

A. That was the morning under discussion, the Tuesday.

Q. Would you answer the question? A. We were discussing the Tuesday.

Q. Would you be prepared to swear that it would be wrong that welding operations were only suspended in truth on the morning of Tuesday, 30th October? A. That is what I have said.

40

Q. You did not; you said, if you don't mind me saying so, that welding operations were suspended for at least two days? A. Tuesday and Wednesday.

HIS HONOUR: Q. Beginning on the Tuesday?  
A. Beginning on the Tuesday.

MR. MEARES: Q. Are you prepared to swear that welding operations were not resumed on the Tuesday afternoon on Sheerlegs Wharf - welding and oxy and acetylene operations? Just think?  
A. No, I couldn't.

Q. You couldn't? A. I couldn't say whether they were or whether they were not.

Q. And you say that, notwithstanding that five minutes ago you swore you were quite certain they were suspended for two days - is that so?  
A. That has been my belief for many years. You may have other information, but I haven't.

Q. Just let us come to another matter. You work as an Industrial Officer, or you did work as an Industrial Officer at the time of this fire? A. That is right.

Q. I suppose you have got an office, have you? A. I did have at the time.

Q. Have you ever been on the Adelaide Steamship Co. Wharf? A. At the Waterview Works?

Q. Yes. A. Yes.

Q. When? A. On two or three occasions.

Q. When? A. I can't tell you the year now, but I was taken over there in connection with a dispute in which our employees were involved with these other employees.

Q. Was that before or after 1951? A. I would say after.

Q. Prior to 1951 had you been on that wharf at all? A. No.

Q. How far from that wharf would your office to the Adelaide Steamship Co.'s undertaking be?  
A. A third of a mile.

Q. A third of a mile? A. Approximately.

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Cross-  
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continued

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Cross-  
examination  
continued

Q. You would not be knowing of course, whether in 1951 there were any industrial operations being carried on in and around the Adelaide Steamship Co.'s premises, as shown on Exhibit B?

A. They were going on practically continuously.

Q. No. You would not know when they were going on, would you? A. I can't quite follow your question.

Q. You have no recollection of there being any activities undertaken alongside or on that wharf on 30th or 31st October or 1st November 1951, have you? A. At the Adelaide Co.?

10

Q. Yes, at the Adelaide Co.? A. There was always a vessel there.

Q. No. Do you remember seeing a vessel there on those three days? A. I can't say that I remember it but I am sure there would be one there.

Q. You say you are sure there would be one there? A. Yes.

Q. You are not suggesting that there is always a ship alongside there, are you? A. very very seldom there isn't.

20

Q. Are you suggesting that there is always a ship alongside there? A. Yes.

Q. Always? A. Yes.

Q. So if we went out and had a look at this tomorrow, we would see a ship alongside that Adelaide Steamship Co.'s Wharf? A. You would see two there at the moment.

Q. And do you swear there is always a ship alongside the Adelaide Steamship Co.'s wharf each and every day of each and every year? A. Yes.

30

Q. Did you observe any ship alongside there on 30th or 31st October or 1st November? A. I wasn't particularly looking for the Adelaide Co.

Q. Did you observe? A. I wasn't expected to, no.

Q. So you would have no idea whether there was any burning or welding or whether anything was being done there or what was the nature of it on those particular days? A. Not as far as the Adelaide Company's Works.

40

HIS HONOUR: Q. If a ship was at that wharf, would it always be there for repairs or could it be there for some other purpose? A. It could be lying out of commission there, Your Honour.

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MR. MEARES: Q. As far as Chapman's Wharf is concerned, on these three days was there any ship lying anywhere alongside any wharf or in the water adjacent to that dock? A. I would only be guessing.

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Cross-  
examination  
continued

10 Q. And, in truth, work by Chapman's is done inside the dock, isn't it? A. Not always.

Q. Generally? A. Quite frequently it is done at the wharf.

Q. Look, is it generally done inside the dock? A. There is no dock there; there is a slipway.

Q. Well, on the slipway? A. Quite a lot of work is done in the boiler shop itself and has nothing to do whatever with ship repairs.

20 Q. Was there any Sydney ferry lying alongside the Sydney ferry's wharf on any of these three days? A. Yes.

Q. What was the name of her? A. I wouldn't know.

Q. Was she lying idle or was anything being done to her? You would not know, would you?

A. I would say that any vessel lying there would be under repair, because they are a repair yard.

30 Q. Sometimes, of course, they might not have started work or they might have finished work and be waiting for her to go away? A. That would be a possibility.

Q. However, you did not observe anything being done on that ferry that you say you saw on any of these three days? A. No; I would not be interested in it.

Q. Did you see any work being done in and around the boatshed, No.7? A. No.

Q. Was there any work being done on Joiners Wharf or alongside it? A. Yes.

40 Q. At Mort's Dock? A. Yes.

Q. What was it? A. The motor vessel "Bulolo".

Q. What was being done to her? A. No.1 Hold was being rebuilt after a serious fire.



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Cross-  
examination  
continued

Q. That would be inside the ship? A. The hull.

Q. The bottom of the ship? A. Yes.

Q. Was anything further done at the bunker wharf?  
A. No.

Q. Was there any ship on the Mort's Dock slipways?  
A. Not on that day.

Q. On the three days? A. Yes; the morning the  
"Teresa Ward" was slipped.

Q. Do you mean the day after the fire, or don't  
you remember? A. I am talking about the Tuesday. 10

Q. When was the "Teresa Ward" slipped?  
A. On the Wednesday.

Q. And she was hauled up by an electric winch,  
was she? A. A steam winch.

Q. And there was no work going on on her on the  
Wednesday or Thursday, was there? A. Only clean-  
ing and painting.

Q. Up on the slipway? A. Yes.

Q. Well then, it would be true to say that at no  
time on Tuesday did you see any burning operations  
being conducted anywhere in Mort Bay? A. I would  
say it would be true to say that I did not observe  
any. 20

Q. And the same thing would be true of the  
Wednesday, 31st October, would it not? A. As  
nearly as I can remember.

Q. And the same thing would be true of 1st  
November, the Thursday? A. No burning operations  
at all.

Q. No. Did you see any on Thursday? Did you see  
any burning operations taking place in or around  
Mort Bay on Thursday. A. Not during the morning. 30

Q. Up till 2 o'clock on the Thursday did you see  
any burning operations taking place in or around  
the Mort Bay area? A. No.

HIS.HONOUR: Q. Not even on the Sheerlegs Wharf?  
A. No, Your Honour. I was indoors all the morning.

MR. MEARES: Q. This would be correct, wouldn't it;  
On the Tuesday, two days before the fire, you had  
occasion to cross the dock, that is the dry dock,  
at quarter past eight on the morning of the Tuesday? 40  
A. That is correct.

Q. And it was then that you observed some oil, did you not? A. My attention was drawn to it.

Q. And you observed it, did you not, surrounding the dock entrance and stretching across the bay in the direction of the slipways? A. Yes.

Q. And you saw it no farther than that? A. And to the Sheerlegs Wharf.

Q. What? A. And to the Sheerlegs Wharf.

Q. Did you? A. Yes.

10 Q. You are quite sure of that? A. Positive.

Q. Your memory is quite clear? A. I can picture it now.

Q. You can see it under the Sheerlegs Wharf? A. Not at that stage.

Q. Would you listen to my question? A. I said "Up to the Sheerlegs Wharf."

20 Q. At quarter past eight on the Tuesday morning did you see oil extending anywhere further than in the direction of the slipways, from where you were looking? A. Yes; I could see it right across the mouth of the building berths, which are to the east of the slipway. They lay between the western end of the Sheerlegs Wharf and the slipways proper.

Q. That would be past the slipways, going towards the head of the bay? A. Going in the direction of the Sheerlegs Wharf.

30 Q. And you saw it actually at the western end of the Sheerlegs Wharf, did you? A. Up to the end of the wharf, yes.

Q. How far would you have been away from that point where you were looking from? A. Perhaps 300 feet.

Q. 100 yards? A. About that.

HIS HONOUR: Q. Exactly where were you looking from at that time you are being asked about?

40 A. Do you see the Balmain Graving Dock, Your Honour? Do you see the compass point with the figure 50? That is the entrance to the dock. I would be standing in the centre of the dock on the casing, directly under the letter N in "Engineering".

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continued

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Cross-  
examination  
continued

Q. Which N? A. The last "N", to about the figure 2 at the western end of the Sheerlegs Wharf.

MR. MEARES: Q. Do you remember giving some evidence before Mr. Justice Kinsella in this case? A. Yes.

Q. Do you remember swearing this - I will read out the questions and answers - "I had occasion to cross the dock at quarter past eight that morning. I observed a large quantity of oil floating on the water." Is that what you answered? A. Yes. 10

Q. And then you were asked: "Where did you observe it?" and you said "Surrounding the dock entrance and stretching across the bay in the direction of the slipways." Is that what you answered? A. Yes. It is the transcript.

Q. And would it have been true?  
A. Yes, absolutely true.

Q. That you saw it surrounding the dock entrance and stretching across the bay in the direction of the slipways? A. Just as I described it this afternoon. 20

Q. But it had not got past the slipways, had it?  
A. Yes, it still went beyond the slipways, although it is not in that statement there.

Q. Would you tell me why, when you were asked: "Where did you observe it? and you said: "surrounding the dock entrance and stretching across the bay in the direction of the slipways"- do you remember saying that? A. I must have said it if it is recorded. 30

Q. And that is your recollection? A. Yes, but I was not asked to what extent the oil continued, I suppose.

Q. But you used the expression "Stretching in the direction of the slipways?" A. Yes.

Q. Then you were asked: "Could you see up from the Sheerlegs Wharf?" and your answer was: "As far as it could be seen in the direction of the slipways and then the view was somewhat restricted from there." Was that your answer? A. I cannot say at the moment whether it was properly recorded or not, but the slipways are very close to the dock head and can be seen quite a distance away. 40

Q. Do you deny answering to that effect?  
 A. I can't deny answering to that effect. It is in the transcript.

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Q. Did you observe it around the Joiners Wharf?  
 A. To a very slight extent at the western end.

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Q. Do you remember being asked: "Did you observe whether there was any underneath or around the Joiners Wharf?" and did you say: "I did not observe it then?" A. If that is my answer recorded there, that is the answer I gave.

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Cross-  
 examination  
 continued

HIS HONOUR: Q. In other words, you don't remember whether that is what you said in 1958 or not?  
 A. I can't remember that, Your Honour. I have been in so many proceedings since.

MR. MEARES: Q. May I take it that we can use the transcript of the evidence as being the transcript, without having formally to prove it?

MR. ASH: Yes, of course. I take it you concede the same to me.

MR. MEARES: Yes.

HIS HONOUR: Very well.

MR. MEARES: Q. On the Tuesday, did you observe it on the port side of the "Corrimal"? A. No, only at the bow and the stern - a very small quantity. I am sorry, you said the port side?

Q. Yes. A. I am talking about the starboard. It was heavy under the wharf on the port side but not on the starboard side.

Q. So when you went along there on the Tuesday in the middle of the forenoon, to observe this oil, you saw no oil on the starboard side of the "Corrimal"? A. No, only a very little came around the stern and the bow with the wash of the water.

Q. You were asked: "Was there any oil between the "Corrimal" and the wharf?" and your answer was: "That is where the oil was"? A. Yes. It was heavily concentrated.

Q. You were asked: "Did you observe any oil anywhere else further out in the bay?" and you answered: "Not outboard of the vessel, no." Is that your recollection? A. Yes. Outboard of the vessel would be the starboard side.

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Cross-  
examination  
continued

HIS HONOUR: Is it agreed that the "Corrimal" was port to wharf, whereas the other one was the other way about?

MR. MEARES: Yes.

MR. ASH: That is agreed, Your Honour.

MR. MEARES: Q. When you went along there on the Thursday, you noticed that between the "Corrimal" and the wharf and under the wharf the oil was much less in volume than it had been on the Tuesday?

A. Yes, that is correct.

10

Q. And on the Thursday wherever you could see the oil it had thinned out considerably? A. Yes, it had become separated then. It was not continuous scum.

Q. And you saw the water on fire - you saw fire on top of the water? A. What appeared to be the water on fire, yes.

Q. Of course, this oil is quite black in colour, is it not? A. Yes, normally, unless it is contaminated.

20

Q. And you determined the existence of oil where you saw the water black in colour? A. I don't quite understand that.

Q. You determined the existence of the oil by seeing the surface as being black? A. A blackened area, yes.

Q. And, of course, when the surface was black you would not see any water underneath at all? A. That is so.

Q. If you take a completely black surface on the water and you could not see the water underneath it, you could not determine the thickness of the oil in that fashion? A. Only where it was heaped on itself.

30

Q. You said "Only where it was heaped on itself?" A. It was thicker in parts than other parts.

Q. What do you mean by "heaped on itself"? A. You could see some parts of the scum on the water were higher than the others - above the others. The contour was not exactly flat and smooth.

40

Q. The actual area where the oil was was not flat and smooth? A. Yes.

Q. Do you put that seriously? A. That is the best way I can describe it.

Q. Do you mean to say that this surface was, in effect, corrugated? A. In parts - not the whole of it. At the dock entrance that is the effect it had, up against the casing of the dock.

Q. You refer to this corrugation right up against the casing of the dock? A. Yes, - in the immediate vicinity.

10 Q. But you never saw any corrugation like that anywhere else? A. Where the dark outline of the oil on the water was, from a distance it looked to be a dirty oily patch, but close up you could see these differences in levels.

Q. You noticed corrugations right up against the casing of the dockyard? A. And in the vicinity.

Q. That is what you said? A. Yes.

20 Q. Did you notice any corrugations anywhere else? A. Not at any distance from where I was standing.

Q. Where were you standing? A. On the casing of the deck.

Q. So at no time did you notice any corrugations of the oil elsewhere than around the casing of the dock? A. Yes, and later on in the morning at Sheerlegs Wharf. It had the same appearance.

30 Q. Leave out the piles. Just looking at the water underneath the wharf, do you seriously suggest that the surface had a corrugated appearance? A. It had that appearance to me on the foreshore side.

Q. Where was it you looked under the wharf? A. From the steps at the western end of the Sheerlegs Wharf.

Q. You were on the steps - is that correct? A. Yes.

Q. On the lowest step or the highest step? A. On the lowest one it was possible to walk on.

40 Q. And you looked under the wharf, did you? A. Yes.

Q. Could you see right under the wharf? A. Along the level of the wharf.

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examination  
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Cross-  
examination  
continued

Q. Right along the length of it from the lowest step? A. From the lowest step I was standing on, above the tide mark.

Q. And what did you see there? A. The oil stretching the full length of the wharf.

Q. And it looked black? A. Yes.

Q. But you did not notice any corrugations?  
A. Only at the foreshore side.

Q. When you say "Only at the foreshore side" do you mean right up against the shore? A. Yes on the shore line. 10

Q. So you would agree with me, would you not that insofar as the oil that you could observe on the water other than the oil right up against the shoreline, you could not possibly determine its thickness or even guess at it? A. You could see it was very thick.

Q. Could you even guess at its thickness?  
A. I suppose you would only be guessing.

Q. Because all you could see was black and whether that thickness extended a depth of 20 feet or a sixteen of an inch, you would not know, would you? A. Only by appearance. 20

Q. What would be the difference in appearance between black oil on water one sixteenth of an inch thick and 20 feet thick? A. I don't think it could possibly be 20 feet thick.

Q. Well, one foot thick? A. One foot thick or one sixteenth of an inch thick, I think there would be an appreciable difference. 30

Q. You think you could tell, do you? A. Yes.

Q. We will see if you can give us the benefit of your opinion. I show you three marked glasses, containing, you may accept it from me, oil of the nature that was spilt, on the top of the glasses. Do you follow that? A. Yes.

Q. And the glasses are more than three parts filled with liquid of some sort. In fairness to you, you will see that around the glasses on top of the substance you see there is a fringe above the liquid oily deposit. Do you see that? A. Yes. 40

Q. Let me assure you that that took place from spillage, so perhaps in your deliberations in ascertaining the respective thicknesses of the oil I can fairly suggest to you that you disregard that. I show you a glass so filled, marked C, one marked O and one marked L. Would you tell me the approximate depth of the oil in each of the glasses? (Objected to; allowed.)

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10 WITNESS: With respect, that is almost the answer I was going to give Mr. Meares. I would not attempt to guess that.

Cross-  
examination  
continued

MR. MEARES: Q. I want you to have a look at those three glasses. Could you give me any idea as to the thickness of the oil in any one or more of the glasses? A. Not concentrated in a small area like that.

Q. Could you give me any idea as to whether or not the oil was thicker in one glass than the other? A. Not from the appearance there.

20 Q. Can you see any difference at all between the surface of the oil on the three glasses which would indicate thickness or thinness? A. No, no difference whatsoever.

Q. Absolutely nothing at all? A. No.

Q. I will now unmask the glasses. You see, do you not, that those glasses contain oil of varying thicknesses? A. Yes.

Q. See that? A. Yes.

30 Q. I will not ask you to measure them because no doubt there will be technical evidence given about that. A. No. It is quite obvious that there are different thicknesses.

Q. And it is quite obvious also that the surfaces of them all look the same to you? A. Yes, identical.

MR. MEARES: Q. As compared with the view that you had of the tumblers that I showed you, you would have been observing oil in the Bay 100, 150 feet away from you, would not you?

40 A. Not at that stage, when I was on the wharf steps.

Q. But you saw oil, you said, when you were first of all - A. At the beginning.



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Cross-  
examination  
continued

Q. At a quarter past eight on the Tuesday you said you saw it 100 yards away?

A. I saw it immediately below my feet.

Q. And you also saw it 100 yards away?

A. Extending 100 yards.

Q. So the thickness of it at any part along that route of 100 yards would be quite impossible to estimate? A. Out in the bay, yes. I was referring to immediately -

Q. And the only way you were able to estimate the thickness of this oil was where it was actually right on the foreshore? A. There are two or three factors. There were movements of launches in the Bay. That would tend to bank it up. That would cause some turbulence in the dockhead. 10

Q. The only place in which you saw any corrugation was where the actual oil was up on the foreshore? A. Or up against some fixed object.

Q. What is the size of the bag the welders use underneath their welding operations? A. It is usually a wet sugar bag or corn sack. 20

Q. And the piece of tin sometimes underneath that, or used as a protection alone, usually the same size? A. Yes - sometimes a bit longer.

RE-EXAMINED:

Re-examination

MR. ASH: Q. You said that when you were looking at the Sheerlegs Wharf, under it, you were standing on steps, but were not on the bottom step? (Objected to.) 30

HIS HONOUR: He did not precisely say he was not on the bottom step. He said he was on the lowest step on which he could stand and still be above the water.

WITNESS: Water level.

MR. ASH: Q. Below the step on which you were standing when you made that observation, what was there? A. A deposit of oil. It would have been risky to get on it.

Q. Did you go down the lowest step without such a heavy deposit? A. The last clean step. 40

HIS HONOUR: Q. You say you saw below you a step with a lot of oil on it, but the water was not, at this time, covering that step? A. That is so.

Q. The water had receded and was no longer covering it? A. Yes.

MR. ASH: Q. Was there one step or more than one? A. More than one, at least two and possibly three.

Q. And were they similarly covered? A. Yes.

Q. To get this corrugation effect precise, you said it was on the foreshore line, or against some permanent object, or words close to that? A. Yes.

Q. Are you able to say how far it extended back from up against say a pile or a fixed object? (Objected to.)

Q. You have the fixed object there. You say there were corrugations against such object? A. Yes.

Q. How far back from there into the general water area, did the corrugations extend along the surface? A. About two feet.

Q. What about where they came up, not against the fixed object, but against the shore? How far back would the corrugations extend in that situation? A. The whole thing would just peter out on the same level, on to the shore, where the shore was flat.

Q. And did you - (Leading objected to.)

Q. You were on these steps at the western end of the Sheerlegs wharf on the Thursday? A. That would be correct.

Q. The day of the fire? A. Yes.

Q. In the middle of the forenoon? A. Yes, before noon.

Q. Could you tell us what you mean by that, what time approximately. A. It was after the 9.30 morning tea break and before the 12 o'clock lunch break - about 11 o'clock.

MR. ASH: If my friend is referring to the evidence given by this witness, I understood -

MR. MEARES: Q. It was the Tuesday that you went to the Sheerlegs? A. I was there on the Tuesday, Wednesday and Thursday. I think I said earlier I was indoors on Thursday morning. I probably misquoted myself there.

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Re-examination  
continued

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Re-examination  
continued

Q. You have described an occasion on which you were standing on a step and two steps beneath you there was oil on the steps? A. That was the Tuesday.

Q. What time was it on the Tuesday that you were on those steps? A. Around about 9.30 or 10, from memory.

Q. At any time, were you standing on the steps on Wednesday or Thursday? A. On Thursday morning, I would not argue about the Wednesday. 10

Q. On the Thursday morning, were there two oily steps underneath you, or none, or only one? A. I think I was able to go further down on that day, because the oil was much more dispersed.

Q. Were there any oily steps underneath you on the Thursday, that was visible? A. I would say yes.

Q. How many? A. I cannot recollect now.

Q. But on the Tuesday, there were two oily steps underneath you? A. At least two. 20

Q. What would be the distance from where you were standing to the lowest part, step, on which you could see oil? You are standing on a step, we will call it No. 3. A. Yes.

Q. And you saw oil on step No.1, two steps down from where you were standing? A. About 15 to 18 inches.

(Witness retired.)

No. 8

William Edward  
Stephen Brady  
6th February  
1963

Examination

No. 8

Evidence of W. E. S. Brady

30

WILLIAM EDWARD STEPHEN BRADY, Sworn, examined as under:-

MR..ASH: Q. What is your full name?  
A. William Edward Stephen Brady.

Q. You reside where? A. No.40 Morrison Drive, Hill view, but I gave the address as 44 Campbell Street, Balmain, on account of I was living there at the time.

Q. You now reside at Hillview? A. Yes.

Q. But at the date of this fire at Morts Dock, 1st November 1951, and for the two or three days previously, you lived at - A. 44 Campbell Street, Balmain.

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Q. Were you on the foreshores? A. No.

W.E.S.Brady

Q. How far back? A. It would be about 200 yards, 300 yards.

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Q. And did you have down on the water, anything? A. Yes. I had a 16 ft. launch.

Examination  
continued

10 Q. Will you look at a map? (withdrawn) Where did you work at that stage? A. I was not too sure. I could have been at the time fishing or just out of work.

Q. You work as a professional fisherman?  
A. I do now, yes.

HIS HONOUR: Q. Were you, at that time, working as a professional fisherman? A. Around about that time I was, and I had given it away.

20 MR. ASH: Q. I want you to show the Court on a chart there, where you lived. Take your time and get your street right. There is Mort Bay.  
A. This is Campbell Street. That is where the wharf is. I was living just about there.

Q. Put a B.1 where your home was, or your residence. A. Approximately there.

Q. Where was your 16ft. launch moored?  
A. I will mark that as B.2. It was in that corner, just off the edge of the street line.

30 MR. MEARES: Q. Is this line like a mountain on a map, a retaining wall? A. Yes. It is all retaining wall, all around the foreshores there, as far as I know. Just in here there is a bit of a beach.

MR. ASH: The witness marked B.1 as his place of residence and B.2 as where his launch was moored.

Q. That would be at the time of the fire and for two or three days previously? A. Yes.

Q. You remember the fire occurring? A. Yes.

40 Q. Had you seen oil on the water before that?  
A. Yes. The oil had been on the water before that.

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No. 8

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Examination  
continued

Q. For how long? A. Three or four days. It might have been a week. I would not like to say the exact amount of days.

Q. You are not certain? A. No. I would not be sure because -

Q. When you first saw the oil where was it, in relation to your launch? A. It was all along the waterline of the launch and all around the foreshores.

Q. What was your practice about your boat? Did you have a look at it from time to time and, if so, how often? A. I was usually down there, maybe once a day. 10

Q. Do you remember a day going down and first seeing this oil? A. Yes.

Q. Can you describe how the oil looked? A. Well, there was a thick scum like on the top of the water. All the foreshores were very thick with the oil. All around the waterline of the boats was thick with the oil, the way it had come up the boats. 20

Q. Were there any slipways there? A. Yes.

Q. What was their condition? (Objected to.)

Q. Any slipway near your boat? Where is the nearest slipway to the point where your boat was moored? A. Right behind where the boat was moored, the people's place where I used to tie the boat to, they have a slipway.

Q. How far away from where the boat was moored? A. Five or six yards.

Q. What was the condition of that slipway when you first saw this oil? A. It was full of oil. Oil was all over the slip and the cradle and everything else. 30

Q. From the time you first saw the oil up to the fire - do you remember the fire? A. Yes.

Q. From the time you first saw the oil, did the thickness of the oil vary or change at all? A. No, because the tides would take a bit out and then it brought it back in again, and I think at the time the North-Easters were blowing pretty strong and that just held it all in the Bay practically. 40

Q. Could you describe it in a bit more detail? Behind your launch was there a shore or a retaining wall? A. A retaining wall.

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Q. Was there any oil on that? A. Yes.

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Q. Could you describe that? A. It was from the waterline up, I suppose about, it might be 18 inches; where the waves had hit it would throw it up the wall anything up to about 18 inches above the highwaterline.

Examination  
continued

10 Q. What was it like on the wall? A. Very thick.

Q. Were you there at all during low tide, during this period? A. Yes.

Q. What did you notice then on the wall?  
A. It was clinging to the wall and the sand at the bottom of the wall was covered with oil.

Q. At low tide there was a bit of sand showing at the bottom of the retaining wall? A. Yes.

Q. And it was on that at low tide? A. Yes.

20 Q. How was it lying on the sand, thick or thin? A. Thick.

Q. Could you give the Court any idea of what you mean by thick measurements? A. I never wore shoes. When you walked through it it stuck to the bottom of your feet, came up through your toes and everywhere else.

Q. You mean when you walked at low tide?  
A. Yes.

30 Q. The tide, of course, went up and down, between when you first saw it, and the fire?  
A. Yes.

Q. As regards that bit of shore and the retaining wall, was there much change in the appearance of the oil before the fire? A. No. There would not be much change at all.

Q. You remember the fire, do you?  
A. Yes. I do remember the fire.

Q. What do you recall seeing about it? Where were you? A. I was down in the boatshed.

40 Q. How far is that from where you were moored? A. The boatshed I was in was on the opposite side of the street, on the opposite side of Campbell Street from where I had my boat moored.

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Examination  
continued

Q. A distance of five or ten yards, or more?  
About 20 yards.

Q. And from that boatshed, could you see across  
the Bay to where this ship, the "Corrimal", was  
moored? A. Yes.

Q. What was the first thing you saw of the fire?  
A. I think I happened to be walking down the fore-  
shores and saw the smoke billowing up from the  
starboard side that was on the wharf, and the men  
were just scattering all along the decks. 10

Q. Did you see the men doing any particular thing?  
A. A couple were getting over the stern of the boat.  
I think there was a punt or lighter at the back of  
the boat.

Q. Do you mean right at the rear? A. Right at  
the stern.

Q. Men were getting over from the "Corrimal",  
on to that? A. Yes.

Q. Did the fire come around and burn in your  
area? It did not get around that far? 20  
A. No. It never came that far.

Q. Could you tell His Honour, after the fire,  
how long the oil remained, describing it as a day,  
three days, five days or a week? (Objected to.)

Q. In the area around the spot where your boat  
was moored, could you describe how the oil  
remained or did not remain for a period after the  
moment of the fire? A. I would say it lasted  
there for maybe a fortnight or three weeks. It  
could have been longer. 30

Q. Could you say whether it stayed the same,  
altered, or got thicker or thinner? A. It was  
gradually going away.

Q. Had you spent some time on the waterfront  
down there? A. I have been around the waterfront  
since I was about nine years old.

Q. I do not know how old you are now?  
A. I am 31 now.

Q. Have you ever seen any oil like this on the  
foreshores of the Harbour before, anything like 40  
it? A. No, not as thick as this was.

Q. Have you seen, going to those years, debris  
around and about the shore? A. Yes.

Q. Can you describe any other parts of Mort Bay, other than your own, where you have seen it? A. Yes, even over underneath that wharf.

Q. Which wharf? A. The one the "Corrimal" was tied up to.

Q. You can assume that is called the Sheerlegs Wharf. A. At the Sheerlegs wharf. There was always bits of wood, boxes and stuff like that underneath there.

10 Q. And did you observe that once or over a period, or what? A. Over a period.

Q. How long was the period, a week, a year or four years? A. Three or four years.

Q. Apart from, I think you mentiched timber and boxes, what other type of debris did you see in that area, if any? A. I would not like to say. There could have been - (Objected to) - bits of rag and stuff like that.

20 Q. Did you see any across the water up there? A. Well, I would not say any across the water.

Q. What have you seen in your own area, in the way of debris, apart from timber and boxes?

A. Bits of waste get washed up on the shore.

Q. Was there one spill at this time, of oil, or were there two separated - (Objected to).

A. That I do not remember. (Counsel confer.)

CROSS-EXAMINED:

30 MR. MEARES: Q. Have you seen anybody and told them the story of what you saw concerning this occurrence, prior to coming to Court?

A. I had a talk with Mr. -

Q. Are you referring to the good looking gentleman, Mr. Street? -

MR. ASH: He saw a better looking gentleman than Mr. Street, Mr. Murray.

MR. MEARES: Q. When did you see him? A. I saw him a couple of weeks ago, down at the boatshed.

Q. And subsequently, have you? A. Yes.

40 Q. Had anybody asked you to recall the events that you have spoken of in Court, prior to that?

A. Prior to talking to Mr. Murray?

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Examination  
continued

Cross-  
examination



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Cross-  
examination  
continued

Q. Yes. A. No.

Q. So you were recalling things that you saw many years ago? A. Yes.

Q. How many years ago? A. It would be about 12, 15.

Q. When did the fire take place, in what year? A. 1951, I think it was.

Q. 1951 or 1952; in the summer or winter? A. November. It was just when the Nor-Easters start, so it would be just in the start of summer. 10

Q. Is that how you remember it was November? That is the worst part of the year for the wind.

Q. And this nor-easter was quite persistent from the time the oil got around Mort Bay, until the fire; and when I say persistent, I do not mean it was blowing every minute, but it was quite a strong wind and it was keeping on? A. Keeping on.

Q. Generally speaking. You do not know how long, between the time you first saw the oil and the fire? A. No. I would not like to say exactly the day, because I never connected one with the other. 20

Q. Might it have been a fortnight? A. No. It would not have been that long.

Q. But it could have been a week? A. Possibly.

Q. You do not remember whether you were working at this time? A. No. At the time I had been professional fishing -

Q. At the time were you fishing? A. No.

Q. What were you doing at that time? A. Quite probably at that time I was dog training for my father. 30

Q. Where would you be dog training for him? Around Balmain.

Q. Do the dogs live at your place or your father's? A. He had dogs there, yes.

Q. And you would be working them for most of the day? A. Yes - only morning and afternoon.

Q. So far as the marks of the oil on your 16ft. boat were concerned, if the boat rocked as a result of - A. - waves. 40

Q. Then to the extent of the height of the wave, would the oil come up along your gunwhale? Perhaps I put it rather clumsily. If I make this key a boat, and the boat rocks with the waves broadside on, if there is oil on the water the water will come up higher than where the waterline would be if the boat was sitting without any waves? A. Yes, it would.

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10 Q. And just as you described the oil slick or the oil on the foreshores as being a certain distance from the tide, the extent of the oil on the gunwhale of your boat would be due to the fact that the boat had been dipping into the oil and then coming up again? A. As far as the height would be concerned, yes.

Cross-  
examination  
continued

Q. Apart from walking through the oil and noticing it on the bottom of your feet, and it got in your toes - A. Yes.

20 Q. - you had no way of observing the thickness of the oil in the Bay? A. Along the foreshores you could. You could see it bank up.

Q. But apart from the foreshores, you could not determine its thickness in the Bay? A. Well, I did not have a measuring stick on it.

Q. And there was nothing about it from which you could tell its thickness, other than that it was black? A. When you see a slick of oil, you can see through it. This stuff you could not see through.

30 Q. I suppose, as far as debris in and around the Sheerlegs Wharf is concerned, would that be something you have occasion to observe closely? A. Well, I had been under there to get bits of floating wood for the boat and so forth.

Q. And, of course, you would find those, would you not, on the shore? A. You do find them on the shore.

Q. And that is where you collect them? A. Yes.

40 Q. And that is where, in the main, the debris was, washed up on the shore with the tide and wind? A. Yes.

Q. I suppose there is as much debris around that Bay today as there was in 1951, without any question? A. Yes, I suppose there would be now.

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Cross-  
examination  
continued

Re-examination

Q. And it would go without saying, would not it, that any debris you saw in the water was, of course wet? A. Yes, it would be wet.

RE-EXAMINED:

MR. ASH: Q. You did see some on the water; it was not all on the shore? A. No. It was not all on the shore.

Q. You were asked about the debris in the Bay now, and looking back to 1951. When did morts Dock stop operating? Do you remember? (Objected to - allowed.)10

MR. MEARES: I do not mind that being ascertained and read on to the notes at some time.

HIS HONOUR: Q. Do you know. A. No.  
(Witness retired.)

(Subject to it being possible to make the necessary arrangements, view to be had by His Honour on Friday next, leaving Supreme Court at about 10.45 a.m.)

(Further hearing adjourned until 10.00 a.m. Thursday, 7th February, 1963.)

20

DP/CJ6

IN COMMERCIAL CAUSES

Nos.3000 & 3001 of 1955  
CORAM: WALSH, J.

7th February  
1963

THE MILLER STEAMSHIP CO. PTY. LIMITED  
v.  
VACUUM OIL CO. PTY. LIMITED  
CALTEX OIL (AUST.) PTY. LIMITED, and  
OVERSEAS TANKSHIP ( U.K.) LIMITED

...

R. W. MILLER & CO. PTY. LIMITED v. SAME.

30

SECOND DAY: THURSDAY, 7th FEBRUARY, 1963

MR. MEARES: There was a subpoena issued to the plaintiff to produce certain documents. I would like to ask my friend as to whether those documents are now available without the formality of calling somebody from the plaintiff. They may be of some importance in the cross-examination of witnesses.

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10 There was a second subpoena issued to Morts Dock by the defendant, requiring the production of statements that had been made by the various witnesses, to Morts Dock, prior to the hearing of Morts Dock v. Wagon Mound. It is understood that those documents are now in the possession of the solicitors for Morts Dock, and I understood that a subpoena had been issued for the same purpose, by the plaintiff, to Minter Simpson. If that is the fact, I suggest that, if possible, the documents be now produced, only for this reason, that if witnesses are called on Morts Dock I would be anxious to have that subpoena answered before cross-examining.

HIS HONOUR: So far as the subpoena to your own companies are concerned, what about those?

20 MR. ASH: I am informed there is no difficulty about the documents. Mr. Murray spoke to Mr. Yuill at the last minute yesterday, and I do not think they are in Court at the moment. But they are being got ready. We have not served any subpoena on Minter Simpson. We served a subpoena on Morts Dock. Any documents should be in Court.

MR. MEARES: Might I inquire whether anything has been produced on subpoena?

HIS HONOUR: The Associate has some bundles of documents, but apparently not the ones you are talking about.

30 MR. MEARES: Might I inquire also as to whether a subpoena has been answered by the Maritime Services Board?

HIS HONOUR: Yes.

MR. MEARES: Might those documents be made available?

MR. ASH: I do not object.

(Documents made available to Mr. Meares.)

40 MR. MEARES: I understand I misstated the facts to Your Honour. Both of us subpoenaed Morts Dock and a solicitor was present yesterday. He was to make arrangements to produce the documents, so perhaps we should make immediate enquiries as to whether that has been done. If they are not here, it may cause some difficulty.

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MR. ASH: I think I told Your Honour I would inform you if we were able to reach any admissions. We have not. The only agreement reached is in respect of one matter. We agreed that the exhibits tendered in Morts Dock v. Tankships could be produced by either side without formal proof but subject, of course, to arguments of relevance, with the exceptions of Exhibits "5" to "16" in the defendant's exhibits, in respect of which a similar concession will probably be made at an appropriate stage. 10

As regards the admissions, we have not made any, and they are at the moment confined to those set out in paras. 1 and 2 of the particulars of claim and defence.

HIS HONOUR: When you speak of the exhibits in the other case you mean, do you, that such of them will be used in this case as counsel decide to tender and as are admitted following such tenders; not that they should all be treated automatically as evidence in this case? 20

MR. ASH: No; that none will be evidence unless tendered before you.

I should say too, that arrangements have been made for a launch to be at Erskine Street Wharf at 11 a.m. tomorrow.

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W. F. McCotter

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1963

Examination

No.9

Evidence of W. E. McCotter

WALTER ERNEST McCOTTER Sworn, examined as under:-

MR. ASH: Q. Your name is Walter Ernest McCotter?

A. That is quite right. 30

Q. You reside at 29 Wharf Road, Snails Bay?

A. Yes.

Q. I show you a chart of the area. I show you Snails Bay. You said you live at 29 Wharf Road?

A. Yes.

Q. Do you go down to the shore? A. Yes. I always go down to the shore.

Q. But does your property or residence go to the shore? A. Right to the water. There is a retaining wall; no beach. 40

Q. Would you mark with the letter "C" where your residence is? Take your time, because there are no numbers shown. A. It would be around about that area there.

Q. Mark in the white portion- A. My property goes from Wharf Road right down to the water.

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Q. Put a "C" on the white part, indicating your residence? A. About there, three houses past Lemm Street.

No.9

Q. Three houses past Lemm Street, moving west. I think you are a retired security officer of the University of Sydney? A. That is right.

W. E. McCotter

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10 Q. And you lived in this spot at Snails Bay for some 24 to 25 years? A. Quite right.

Examination  
continued

Q. You did not witness the actual fire at Morts Dock on 1st November 1951; you were away from the area? A. That is right.

Q. Do you recall the oil spillage that preceded the fire? A. Yes. I heard them talking about the fire.

Q. Do you recall the oil spillage just before it? A. Yes.

20 Q. How did you first see the oil? When did you first notice it and come into contact with it? A. When I went down to my front lawn. It was very thick, all over the slip, and cradle and the railway lines on which I wind my boat up into the shed. I was unable to walk onto the slip on account of the thick oil and I had to build a barricade to stop domestic animals going down.

Q. In all your time in that area, have you ever seen anything like it? A. Not so bad.

30 Q. How long did the oil remain there?  
A. For weeks, for weeks and weeks.

Q. Could you describe it a little more closely? I think you said that there is a retaining wall in front of your own home? A. Yes, a stone wall. It goes right along the waterfront. All the properties along the waterfront had to build a retaining wall when the land was reclaimed. The land had to be reclaimed, and the Maritime Services Board insisted on a wall being built.

40 Q. Had you any steps then down from the wall?  
A. Yes. I have steps right at the front wall, to walk down into my boat, as well as the slip.

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W. E. McCotter

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Examination  
continued

Q. Did the movement of the tides up and down leave any oil anywhere? A. It left it on everything the water touched. It left the oil behind and it did not go away for weeks and weeks because it was so thick.

Q. Could you give us any idea of its thickness? A. It would be hard to say without putting a stick on it, but it looked to be easily an inch thick around my property. I am in a pocket there and the nor'-easters blow it in and it stays there. But it spread right down to Birchgrove Park. There is a little beach there and it got on the sand and the children got it on their feet and they were not allowed - (Objected to.)

10

Q. You said the children got it on their feet at a little beach at Birchgrove Bay. Did you see anything that happened to the children following that? A. The transport authorities would not let them - (Objected to)

Q. How did you travel to work in those days? A. By tram.

20

Q. From where? A. There were no buses then; from Birchgrove.

Q. From Birchgrove terminus? A. Yes, around to Grace Bros.

Q. Did you see the children attempting to board the tram? A. Yes.

Q. That you were on? A. Yes. They were not allowed on the trams - (Objected to)

Q. Getting back to these steps that you spoke about, what sort of steps go down to your retaining wall? A. Stone.

30

Q. Was the oil on those? A. Yes, oil on everything on the waterfront.

Q. Did you walk on those steps with the oil on them? A. No.

Q. Why not? A. I did not want to get it all over my feet. When I started to clean down, I did, but I put rubber boots on at the time and I limed it and scraped it and swept it. I had to do that for days.

40

Q. Was the oil on the water as well? A. Yes.

Q. How far out in the first two or three days that you noticed it, how far out from the retaining wall into the water did this oil extend on the surface of the water? A. It could have been any distance, but I think it would be about 60 to 70 feet in width. It varies with every wind that blew.

Q. Did that also remain there for some time?  
A. Yes.

10 Q. How long did the oil on the water remain there? A. We gave it away as a hopeless job, just hoping for the best.

Q. You said the oil remained for many weeks. Does that remark apply to the oil on the water too? A. Yes.

Q. Did you notice anything else about the oil - any of your other senses? A. The smell. There was a very offensive smell about it.

Q. Did that persist for some time? A. Yes.

20 Q. Was that at the water or elsewhere? A. It came right up into the house. We get a nor'-easter and it blows straight into my front door. Westerlies and southerlies go over the top of me.

Q. How far back would your house be from the retaining wall? A. About 50 to 60 feet, I think, high up.

Q. What blew in? Did you see anything blowing in? A. No, only the fumes.

30 Q. Do you remember what time of the morning on the first day, you noticed it - A. I always go down to the waterfront early every morning, and I think it was early in the morning, about 7 o'clock.

Q. One morning there had been none - A. What attracted me to go down was the smell. I usually go down every morning to the waterfront, to see that everything is all right.

40 Q. That was your regular habit, and this morning, about 7, you saw this oil which you described? A. Yes.

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Examination  
continued



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W. E. McCotter

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1963

Cross-  
examination

CROSS-EXAMINED:

MR. MEARES: Q. You said that you were away at the time of the fire. Is that correct? A. Yes.

Q. Where were you? A. Very likely at work. I was not around my home. I was a shift worker at the university at that time. I am retired now. I worked three shifts. We changed around all the time, but I did hear them discussing the fire. But it had nothing to do with me.

Q. Could you tell us how long it was before the fire that you heard of, that you saw this oil? 10

A. No. I could not recall the times now, it is so long ago.

Q. Would you be able to search your memory, to have any idea? A. No, I do not think I could. It was just around about the time. I was travelling by tram. If I had been travelling by ferry I might recall it better.

Q. Are you able to say that it would be more than a week or less than a week? A. No. I would not be able to say that. 20

Q. You would not have any idea? A. No.

Q. You have, of course, seen oil in and around the foreshores of Mort Bay, in your long experience? A. Oh yes.

Q. On many many occasions? A. During the war the Maritime Services were a bit lax and the boats used to empty their bilges, but it was not to the extent that this was.

Q. And you have seen the same thing on many occasions, in and around your residence? A. Yes. 30

Q. Of course, concentration of oil where you were or oil that was concentrated in what you described as a pocket? A. My property is in a pocket.

Q. And when you use that expression I think you mean - correct me if I am wrong - that it is a pocket because you do not get the benefit or otherwise of the westerlies and southerlies; they blow over you? A. That is right. They go over the top of me. I am right on the water and there is a big hill at the back. 40

Q. Because of the situation of your residence in relation to the topography, nature of the land, the position would be in and around your residence that you would get the burden of the nor'-easters bringing stuff (if I may use that expression) into this pocket? A. That is quite right.

Q. And conversely, not the benefit of the westerlies and southerlies to get rid of it? A. That is right. The southerlies and westerlies hit the water about 400 or 500 yards from the front of my property.

Q. If I may have the picture, there is a retaining wall between the water and your property? A. My lawn. My lawn goes right out the front, to the water.

Q. And at low tide, is the water against your retaining wall or is there any foreshore? A. There is no beach. There is always water there.

Q. And without pinning you down at all accurately, could you give the Court a very rough idea how much water you would have at a normal low tide against the edge of your retaining wall? A. Four to five feet.

HIS HONOUR: Q. About how high is your wall? A. My wall would be about 10 feet. It comes up to the level of my neighbour's baths. At Christmas tide it just goes over the top. My wall is about 2 feet above his baths.

Q. You are about 2 feet above the highest tide level? A. Yes.

MR. MEARES: So if I dived in from your retaining wall at dead low tide, I would have 4 feet of water between me and damaging my head on the bottom? A. You could stand down there at a very low tide.

Q. At some point in your retaining wall there are steps? A. That is right. The steps are built into the wall.

Q. Of course, you would get a tide, would you not, in and around your area, varying between no feet at low tide and 5 or 6 ft. at high tide? A. Yes.

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W. E. McCotter

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Cross-  
examination  
continued

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No. 9  
W. E. McCotter  
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1963

Cross-  
examination  
continued

Q. Or would that be wrong? A. A 5 ft. variation?

Q. Yes. A. There could easily be that.

MR. MEARES: It would seem never to be higher, between 29th October and 1st November, than 5 ft. 2 $\frac{3}{4}$  ins. - between low and high. (Document handed to His Honour)

(Schedule of tidal information together with, by consent, diagram of tides taken at Fort Denison, tendered; admitted and marked Exhibit "C").

10

MR. MEARES: Q. I suppose, of course, that when the tide came in it would bring the oil up against the retaining wall and your slipways? A. Yes.

Q. And that when the tide went out, the oil or some of it would be left on your retaining walls? A. Quite right.

Q. And I suppose, as time went on, until you took some action, it got gradually thicker?

A. That is right. The mark is still there.

HIS HONOUR: Q. Is your water pretty smooth there, or do you get a fair bit of wash? A. No. At one time we used to get a bit of wash with a neavy nor'-easter but at the moment, in these times, Nicholson & Co. have built a wharf and they have quite a number of ferries tied up there and that protects us, and it is still water now.

20

Q. But what about 1951? A. They were not there in 1951. I would never get rid of the oil at the present time, because it would not move.

MR. MEARES: Q. As far as any smell was concerned, you could smell the odour, I take it, of the oil? A. That is quite right.

30

Q. And it was quite definable? A. Very strong.

Q. As the smell of oil? A. Yes. The oil smelt all right.

Q. And it smelt like oil smells? A. Yes. It did not smell like the fumes of petrol, but I have smelt something similar in these tankers.

Q. You never saw, of course, any fumes. You simply smelt the oil? A. Yes. I could not sleep for a few days there.

40

RE-EXAMINED:

MR. ASH: Q. I did not ask you the colour of the oil as it appeared to your eyes? A. Very black.

Q. You were asked about being in a pocket? A. Yes.

Q. You described how the oil continued on to Birchgrove Park? A. Yes.

10 Q. Are you able to say whether, in 1951, it extended on your right-hand side, to Ballast Point? A. Yes. It went as far as Greenwich on the other side - (Objected to)

HIS HONOUR: Q. You said it extended to Greenwich? A. I heard complaints from people -

Q. What you saw. A. I did not go over there.

Q. Looking from your property, looking to your right, how far did you see the oil extend, if you noticed that at all? A. Well, I could not say how far it extended. I knew it was coming from around the point, from Mort Bay.

20 MR. MEARES: Q. Of course, you never saw it at any time in Mort Bay? A. I did not go around there. I was not interested.

(Witness retired.)

No.10

Evidence of T. G. Parkin

THOMAS GEORGE PARKIN Sworn, examined as under:-

MR. MEARES: If my friend wishes to lead from the transcript, he may do so.

MR. ASH: Q. Your name is Thomas George Parkin? A. That is correct.

30 Q. You live at 5 Booth Street, Balmain? A. Correct.

Q. What is your occupation now? A. Retired.

Q. But you were, at the time of the Morts Dock fire, on 1st November, 1951, the works manager for Morts Dock & Engineering Co. Ltd? A. That is correct.

Q. And you had then held that position, I think you were there -

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MR. MEARES: Since 1933.

MR. ASH: Q. Since 1923, at Morts Dock? A. 1923 would be correct.

Q. And you were at Cockatoo Dock from 1907 to 1923? A. That is correct.

Q. And you came to Morts Dock as assistant boilermaker, and you were later foreman boiler-maker, assistant works manager and works manager at Morts Dock? A. That is correct.

Q. In October 1951, Morts Dock had the "Corrimal" at the dock, to do extensive repairs to it? 10  
A. That would be correct.

Q. It had been there, we are told, for several months, and had been tied up at the Sheerlegs Wharf for a few months prior to the fire, and I think you could tell us if there is any dispute, the length of the "Corrimal"; you said it was before 200, 250 ft. Would you accept from me 234 ft.? A. I would say that, approximately.

Q. And I think the length of the Sheerlegs Wharf you put down as about 680 ft.? A. That would be about correct. 20

Q. And you had a Mr. Hodgkiss, one of your acting foremen, under you at the time? A. Yes. He would be a charge hand, in charge of the work.

Q. And in relation to the "Corrimal", you, Morts Dock, had working there boilermakers, iron-workers' assistants, fitters and probably some painters and dockers? A. That would be correct.

Q. And the company was performing a major overhaul of the "Corrimal" at the time? 30  
A. That would be correct.

Q. Men were working both on the "Corrimal" itself and on some work being carried on on the wharf? A. That would be correct.

Q. And I think at the time of the fire, the mast of the "Corrimal" was being treated on the wharf, lying down on the wharf? A. That would be right.

Q. Or, if not right down, it would be on trestles or something? A. That would be right - 40

MR. MEARES: Do not lead as to the position of the mast.

MR. ASH: Q. Do you recall the exact position of the mast on the wharf, on the day of the fire?

A. I can give it to you approximately. It would be extending a little past the bow of the vessel, running along to about amidships, on the wharf on trestles.

10 Q. And there were men on the wharf carrying out repairs to the mast on that day; they were putting sheathings and one or other things on the mast? A. That would be correct.

Q. And there were men working on the wharf with materials which were later going onto the "Corrimal", marking off materials and that sort of thing? A. That would be correct.

Q. Did you have on the wharf, appliances for electric welding and oxy-welding? A. Yes, on the wharf and under the wharf.

20 Q. The electric welding sets I think are not mobile; they are housed but detachable? You call them permanent fixtures, but the oxy-torches of course are moveable? A. That is correct.

Q. You think there were about three of the electric welding units on the wharf?

30 HIS HONOUR: Q. You said some of these things may be under the wharf. Would you explain that a little to me? A. Yes. In regard to electric welding, for convenience they have what they call busbars under the wharf. They come from a fixture back under the wharf and they run along the wharf, and they have a series of plugs like you plug into at home. The electric welder fastens his wire to these pins and it shortens his lead to where he is working. It is an electrical appliance under the wharf.

Q. It brings his power up onto the wharf?

A. Yes, and there are a series of places on the wharf where he can connect to.

40 MR. ASH: Q. As regards the oxy burning, you say there would be one or two oxy burning outfits on the wharf. They are mobile oxy sets? A. That would be correct.

Q. That is an apparatus which uses oxy-acetylene flame, which is used for cutting metal? A. That would be correct.

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Q. And all the plant you have spoken of had been on the wharf for some time prior to the time of the fire? A. Yes.

Q. And used? A. Yes.

Q. I think you say that as regards its use, it would be generally used every day, some part of the day? A. That would be correct.

Q. The work that was carried on on Sheerlegs and on the "Corrimal" would be only portion of the work which was being carried out throughout Morts Dock from day to day? A. Yes, that would be correct. 10

Q. You have a dry dock, where ships come in for repairs? A. Yes.

Q. And you had, at the time of the fire, another ship, the "Bulolo" over at Joiners Wharf, where damage repair was being carried out? A. That would be correct.

Q. And around that particular time there was also a vessel called the "Polonesie" in Morts Dock? A. In the small dock, yes. 20

Q. I think I had better bring you up to the fire. First of all, going back a couple of days, on Tuesday the 30th, the fire being on Thursday, 1st November - A. Yes.

Q. Going back to the Tuesday, 30th October, you remember coming to work that morning? A. Yes.

Q. Perhaps you might indicate where your office is? A. If you have a map there, on Joiners Wharf-

Q. (Exhibit "B" shown to witness): This is a plan in evidence. 13 is Sheerlegs and 9 Joiners Wharf. A. That is the Joiners Wharf. That is the extreme point of the Joiners Wharf. I mean the Sheerlegs Wharf. This is the Joiners Wharf, No.9, and the "Bulolo" was lying about there (a position at the north-western end of Joiners Wharf). My office or the main office was just in the square behind there, midway, say along a third of Joiners Wharf. I will mark it roughly. 30

MR. ASH: He puts the letter "O", indicating the position of his office, he draws a little square in ink and marks in the top corner of it a smaller square within the larger square, indicating the position of his office. 40

HIS HONOUR: Q. Were you on ground level or higher up? A. I was on ground level. The "Bulolo" bow was like that.

MR. ASH: He draws a sketch of the bow of a ship.

WITNESS: And that would obstruct my view across there, from ground level to the height of the ship, across to Sheerlegs Wharf. I am saying that because -

10 MR. ASH: Q. Leave it there at the moment. You have pointed out where your office was. When you come to work in the morning, as you did in those days, you generally used to walk out into the dock, did you? A. That could be correct.

Q. Walk into the works, to see what was going on? A. Yes.

Q. And you did that this morning, the Tuesday? A. Yes.

20 Q. Did you see this oil on the water? A. Yes. When I went in onto the premises, I walked across to the caisson. That is the head of the small dock, a floating caisson that they remove to allow the vessel into the dock. That has a pathway across it. I stood in the centre of there and - Do you want me to proceed?

Q. Is this the position, that you noticed a very large quantity of heavy oil floating in the vicinity of the caisson? A. That is correct.

30 Q. Along by the foreshores, across the dock, right across to the point of the shore at the outward, southern end of the point of Sheerlegs Wharf? A. Yes.

Q. And it extended along in under Joiners Wharf, between the "Bulolo" and the shore? A. That would be correct.

Q. When you say it extended to the Sheerlegs Wharf, could you see beyond and to the Sheerlegs Wharf from that position, at that moment? A. Not where I was standing, no.

40 Q. You could only see to the western point of the Sheerlegs Wharf, at that point? A. Yes.

Q. Did that oil look like a very heavy dark oil? A. It was very thick.

Q. And it was furnace oil? A. Well, I took it to be furnace oil.

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Q. I think you noticed how thick it was and explained that it was very thick near the caisson, near the foreshores it was exceptionally thick and it tapered away a little as it came out but, over the entire surface it was fairly thick? A. That would be correct.

Q. By "thick" you mean it stood out of the water a little? A. Yes.

Q. And on the slipways, with the tide rising and falling, it had congested on parts of the slip, which really interfered with you - (Leading objected to)

10

Q. When you saw this oil did you take any action? A. Yes.

Q. With regard to the type of work to be continued? A. Yes. I gave instructions that no electric welding or oxy burning was to be carried out until I notified them further.

Q. And in fact, it stopped, did it? A. Yes, there was none.

20

Q. And later on I think, following certain inquiries, it resumed that morning? A. Yes - I would say just this side of lunchtime.

Q. You made certain inquiries and gave instructions for it to resume? A. That would be correct.

Q. I would like to ask you at this stage, why did you give instructions that it stop? A. Well, I was not sure. I wanted to be sure whether it was inflammable or whether welding or burning would set it alight.

30

Q. I will come back to that later. Going on with the history of the matter, the work proceeded after your later instruction -

HIS HONOUR: Q. Could you tell me where exactly work was going on, on this particular morning that you are now speaking about? What places was active work going on? I suppose one would be the Sheerlegs Wharf? A. Sheerlegs Wharf would be one. There would be active work on the Joiners Wharf but not with fire or flame. There would be active work, with fire or flame, in the dock itself and there would be in the boiler shop, which is alongside the wharf. The boiler shop skirts the wharf which we call the bunker wharf which is the part,

40

as you come to the head of the dock, just on the water's edge that leads to the slipway is the boiler. There would be work carried on in there but that would be say approximately 20 to 30 feet away from the water's edge.

MR. ASH: Q. Had you ever seen, in your dock and waterfront experience, anything like this oil on the water that morning? A. No. I had never seen anything of the quantity.

10 Q. Between the 30th, when you first saw it, and up till the time of the fire, did it remain the same or vary, or what? A. It remained reasonably constant. I believe we undocked a vessel during the Wednesday, which would break it up, but after the vessel undocked I am pretty sure another vessel docked to follow her. I am not sure, but I think it did. Then it all converged and came back again and was much the same. After the ship went out it went out through it and then I would say it came back much the same again.

20

Q. When you opened the dock for this change-over, did it get in there? A. It got in when the caisson was removed and there was a fair quantity on the altars of the dock and where the men usually work in conjunction with cleaning and painting a ship.

30 Q. Apart from that operation, did the oil around the foreshores remain reasonably the same right up to the time of the fire? A. Yes, I would say.

Q. I asked you about Tuesday. Did you later see it under the Sheerlegs Wharf? A. Yes. I saw it on the first morning after I had a look under the wharf.

Q. Later that morning you saw it under the Sheerlegs? A. Yes.

Q. How was it there? A. Much the same.

40 Q. How far up did it extend? Can you carry it any further than that? The head of the land is Ballast Point? A. Well, I only went on the full extent of the Sheerlegs Wharf. But I cannot say with any certainty. There is a ferry wharf, called Yeend Street, and I did not observe anything past that, but right up under the wharf, as far as the ferry wharf, there was oil.

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Q. When you say you could not observe anything past that, how does the land go past Yeend Street?  
A. It recesses back in, I would say about 20 feet, 30 feet from the end of the Sheerlegs Wharf, from the extreme width of the Sheerlegs Wharf. It takes a step back and then the land follows around to Ballast Point and there are pylons driven in to keep the ship off, about 30 feet from the land.

Q. As regards the oil near the foreshore, did you see it up to the point where it went out of sight, around the turn? A. No. To tell the truth I only looked to the end of the wharf, if I remember rightly. Wherever I looked there was oil.

10

Q. Cut from the foreshores? A. Yes.

Q. How far out was the oil from the foreshores, on the water? A. The oil appeared to me, it went under the wharf close up to the "Corrimal", and from the extreme point of Joiners Wharf right across to the bow of the "Bulolo". There might be a bulged line of oil but from there into the foreshores was all oil, which is a pretty extensive area.

20

Q. As regards the two ships - A. It was coming across from Sheerlegs Wharf to the "Bulolo", forming a type of triangle.

Q. Was the thickness of the oil even or did it vary, or what? A. It was mostly even except on the extreme edges. It was sort of thinning out, the far end, and into the shore it was thicker again. It sort of accumulated and built itself up.

Q. Would that apply right around the shore?  
A. That would apply right around the shore.

30

Q. You said that that position maintained itself until 1st November, and you went over, I think, to the "Corrimal" on the morning of the 1st November between 9 and 10? A. Yes. I would say somewhere around there, maybe a little before 9.

Q. I think you said you went around to see the "Corrimal" works each day? A. Yes.

Q. At the Sheerlegs Wharf, when you got around there on the morning of the fire, did you take particular attention to any precautions? A. Just which I used to do every day, just make sure that they were observing precautions, of any protection they could, under where sparks could fall from their burning or welding.

40

Q. And had you done the same on the Tuesday, after work resumed? A. Yes, and the Wednesday.

Q. I think you said there were welders and oxy-acetylene burners working on the wharf that day, and also electric welders at all events, working on the ship? A. That would be correct.

Q. I think you told us your men were working both on the wharf and on the ship? A. Yes.

10 Q. And these oxy burners and electric welders you are speaking of on the ship, would be your men? A. Mostly. I would say that there were some others that did not actually work for us, but I would say the majority were our men.

Q. I think you said the work on the "Corrimal" had got to within two weeks of completion of the contract? A. It was within that time.

20 Q. You saw the fire and you came out of your office. You said that you could not see it directly, because of the position of the "Bulolo"? A. That would be correct.

Q. Did you go over there? A. Yes. I went to the bow of the "Bulolo" first. Is this when the fire occurred?

Q. Yes. You could see across to the Sheerlegs Wharf from there? A. Yes.

Q. And it was just a mass of flames, was it? A. That would be correct.

Q. And the water appeared to be alight? A. It did.

30 Q. You say the water appeared to be alight. You were asked whereabouts and you said at the after end of the "Corrimal" and extending back along the wharf perhaps 30 or 40 yards, and extending out anything from 10 to 15 feet past the "Corrimal"? A. That would be correct.

Q. And that the "Corrimal" itself seemed to be alight at the after end, and that there was at the time a lighter moored against the "Corrimal" on the starboard or outer side? A. Outboard side.

40 Q. We know that to be the Audrey-D? A. That would be correct.

Q. And on that you could see that there was a fire on the mast of that lighter? A. Yes, on the "Audrey-D".

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Q. I want to ask you some other questions. Coming back to this decision of yours to stop work, you had had, I think, by then some - was it 1907 when you started - 44 years' experience in docks? A. Yes, practically.

Q. Had you had any experience of fire danger from oil? A. Yes. My first advent into Morts Dock was approximately 1924. Roughly 12 months after I was there my first experience of oil was in a double-bottom tank, lying at the Joiners Wharf. 10

Q. Was this furnace oil? A. Yes. This was a No.1 tank, ballast tank, which was carrying oil in ballast. She had strained herself at sea and they pumped that out and she came in for repairs. We had to put men inside the tank. At that time we were not as advanced as we were later. That was with the nature of the oil. I got a tin of this oil and took it up to my office and tried to see if it would burn with a hot rivet, which it did, so then I had to take extra precautions. We had to repair this tank on what we termed the margin brackets to the ship's side, and they had about six rivets in it, and there would be about 30 on each side of the tank, and the men had to go in the tank, and the tank was spaced off every 2 feet with what they termed floors, and in the floors were oval holes you could crawl through. The men had to go up through them and it was a pretty dangerous undertaking to my idea, at the time, and we wanted to make sure everything would be all right. We got painters and dockers in there, cleaned out the tank and white-washed it, and then passed the rivets in tins, so that there was no chance of the tin contacting anywhere, and they put the rivets in and rivetted and everything went quite O.K. on that job. 20 30

Q. You directed that to be done that way, following your test with oil? That is correct.

Q. That was in 1924? A. That was in approximately 1924. 40

Q. Coming forward, has there been, for a considerable number of years, a practice about cleaning the tanks with oil in them? (Objected to)

Q. From the point of view of the man in charge of cleaning out an oil tank, is there a practice which has been adopted for some time? (Objected to: allowed.)

Q. Has there been for some time, a practice of the type I said? A. Yes. The practice generally, at the moment - (Objected to.)

HIS HONOUR: Not at the moment. You had better take this back to before 1951.

MR. ASH: Q. Was the practice you are about to talk about, in vogue before 1951? A. Yes.

10 Q. I want you to tell me what the practice is. You have already said it is in relation to the cleaning of tanks with oil in them? A. Yes, in confined spaces mostly. General practice is or was that an analytical chemist comes and he takes samples from inside the tank to see if it is fit for men to enter the tank. He then gives you an O.K. to enter the tank and tells you whether the tank has to be steamed out or whether it is fit to go in as it is. If it is fit to go in, you go in and clean it, and he comes along and makes another inspection of the tank and gives you permission to use flame inside the tank.

20

HIS HONOUR: Q. If it is within your own knowledge, tell me this: if it is not, say so. If the analyst's report was that the men ought not to go in as the tank was - Do you follow me? A. Yes.

30 Q. What was the practice as to the next step to be taken? A. The next step would be they would close the tank down, steam it out for a number of hours, then open it up and leave it open and take another sample. The steaming was supposed to have eliminated any trouble with the oil.

MR. ASH: Q. When you were giving your description of the 1924 incident, you used a phrase which Mr. Meares asked you to repeat, that at that stage you did not know so much, or words to that effect. Do you remember? A. Yes.

40 Q. Did you have in mind the fact that this later procedure came in and other precautions, later than 1924 but before 1951? A. No. What I had in mind was that I knew of no other method, other than the one I adopted, to assure myself that the tank was all right. That is all I had in my mind.

HIS HONOUR: Q. You said you took some of it to see if it would burn with a hot rivet? A. That would be correct.

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Q. Would you explain a little more what you did in that test - back in 1925? A. Yes. I took an ordinary paint tin, a small tin, and filled it with oil. I took it into the boiler shop. I was foreman boilermaker at the time. I took it around and ran a trace of it along the ground and got a hot rivet and put it in and it just flared and ran away into flame.

Q. You put the rivet into contact with the oil?  
A. I then put the rivet onto the oil, to see whether it would light. 10

Q. How hot would be this rivet? A. It would be above red, nearly white.

MR. ASH: Q. How long did it take to ignite?  
A. Pretty well instantly.

Q. Did you have another experience on this subject, at Woolwich, during the war? Morts Dock had a dock at Woolwich, did not they? A. Yes.

Q. Was there some welding of a fractured tank?  
A. Yes. 20

Q. Containing oil? A. Containing oil.

Q. Was there some furnace oil in the tank, or something like that? A. She was a tanker. The tank was full of oil and just a little above her floating level - she was in dry dock and the tank was full of oil - there was a fracture of a hull plate. The plate, I would say, maybe about three-quarters of an inch thick. There was a fracture approximately maybe 12 inches long. The welder welded that fracture and, as he was welding it, the flame was running up and down. 30

Q. You say you had had 44 years' experience in 1951, 1907 to 1951? A. I was making sure of the time I was at Morts.

Q. That is wrong, 1923 to 1951? A. Yes.

Q. And you had been at Cockatoo? A. Yes. I was at Cockatoo 15 years.

Q. Having those two experiences and having that experience working in docks, you gave an order that morning, on Tuesday the 30th, for oxy-torch and welding operations to stop? A. Yes. 40

Q. You further said you went away and asked for some information? A. Yes.

Q. I want to direct your mind to the precise time when you, of your own initiative, gave the order to stop. Do you see what I mean? A. Yes.

Q. Did you have any views on whether there was any danger in that oil? A. Yes. I thought there was and as I first saw the oil on the water I did think there would be, there could be danger to sparks or anything from oil contacting it.

10 Q. Danger leading to what? A. Leading to a fire, in my own mind. Do you want any more?

Q. No. I want you now to give His Honour more information about the workings at Morts Dock, the type of work going on there generally in the period during 1951. Do you see what I mean? A. Yes.

20 Q. First of all, have you anything to say about debris in the bay, debris and waste in the bay? Did it ever collect anywhere? A. Yes. Generally the bay is, I would term it, a reasonably dirty bay for floating timbers and things that are thrown in the harbour and, unfortunately for us it mainly collected in front of the caisson where we docked, because when we undocked or docked a vessel there would always be a procedure of taking bits of wood and anything at all out of the fit. That is where they sink the caisson to pump the dock dry. That was mostly all along the shores and on the two slipways which are between the Joiners Wharf and 30 the end of the slip. There were two slipways, one for carrying a large vessel and one a smaller vessel. Always we had to have a man clear the rails that the slips ran down.

Q. Could you tell us the position in this regard, under the Sheerlegs Wharf? A. It would come in much the same category. There were always drifting woods and that about.

Q. In the ordinary course of work, were there fitters and turners employed by you? A. Yes.

40 Q. In some numbers? A. Fair numbers, yes.

Q. Did they regularly use any material in their hands, and if so, what was it, and what did they use it for? A. Usually a fitter is supplied with cotton waste. That is a part of his kit.

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Q. What is it for? A. The fitter generally comes in contact with a lot of oil when he is dismantling engines or handling engines, and it is for his own use; for wiping down or for his own use in cleaning his hands.

Q. Was that a usual issue? A. It is a usual issue.

Q. What have you seen as a regular thing being done with that cotton waste by fitters and turners? (Objected to)

10

Q. What have you seen fitters and turners do with that waste after use, for that purpose?  
A. Well, I do not know that I could be specific on that. They are usually supposed to put it away carefully and that sort of thing. There would be receptacles and the like to put things in, but I could not say just what they actually do with it.

Q. In the ordinary course of events, do you know that they always put it in the receptacles, or does something else happen? A. No. They could just leave it after them, really.

20

Q. Have you ever seen any cotton waste on the wharf or around the wharf, outside the receptacles?  
A. Yes, I must say I have.

Q. Is that often or constant or rare or what?  
A. A lot would depend on the type of work that is taking place there.

Q. It varies, you say. Sometimes it is more often than not? A. Yes.

30

Q. But does it go on in some degree or other, all the time? A. Well, I would say it would, wherever engineers were working, dismantling, or where they were actually carrying on their work on engines.

Q. And that type of work you have just described, did that go on on the Sheerlegs Wharf? A. It did. They were dismantling a diesel engine.

Q. I want to ask you about the welding and the oxy-welding. You have seen those operations many times, I take it? A. Yes.

40

Q. What happens when oxy burning is going on?  
A. Well, usually the burner uses acetylene and oxygen, and his is a different operation from the welder. The oxy burner, when burning metal, brings

the metal to welding point and then blows it away through the operating of a handle on his torch, which blows the metal through, and you get a far greater spraying of metal and that type of thing from oxy cutting than you do from welding, unless they are welding with very large electrodes, which is unusual on ship repair work.

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Q. When you say there is a spread of metal, what sort of metal? What is its condition?

10 A. I would say that it would be of a molten condition of steel, and when they cut the object it falls and the general practice is to have a bag underneath, wet, and the metal falls on the bag and, well, sometimes it would splash over the bag. You can never control it actually, fully.

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continued

Q. I take it the precaution is that this bag is there but in practice, in an ordinary day's work, have you seen that precaution not observed?

20 A. Well, I have seen it not observed, but not very often, because it is to the burner's own benefit to have it there. It restricts the spark spread and protects himself, his own clothing and one thing and another.

Q. There is one further question on that point. You were asked:

"Q. It is not uncommon, of course, for men using torches to have a piece of lighted hemp or something else - tow - for the purpose of lighting their apparatus?

30 A. It is fairly common, but we frown upon it and try to avoid it wherever possible and tell them not to use it."

A. Yes.

Q. What is that hemp or tow? Describe its size and shape. A. It would be just wherever they could pick up an ordinary piece of rope. It would not matter what diameter, 1 inch or 2 inches. They would cut it about that length, set their torch on the end of it and lay it over something. It burns all day. We would not allow that in our place, wherever we saw it.

40

Q. You are describing what you have seen when they have not been observing - (Leading objected to.)

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Q. What are they for? A. It is there and when their torch is out and they are not using it, if they want to light it they put it over, flick it and it instantly lights. It saves them matches.

Q. You recall the Sheerlegs Wharf at this time. Were all the planks together?

MR. MEARES: You may lead on that.

MR. ASH: Q. At the time of this fire the planks were partially separated at quite a number of points, owing to general weather conditions?

A. Yes. They are not close together. They average from an inch to one and a half inches apart.

10

(Short adjournment.)

Q. I think you had just told us about the help rope. Speaking generally of the type of work in Morts Dock, what is used to burn out rivets?

A. Oxy-acetylene torches.

Q. Whereabouts is that work performed?

A. Practically all over the works, wherever the job is.

20

Q. When I keep on saying "is", I am referring to the practice as at 1951, November 1951. Is it ever done on the side of a ship? A. Yes.

Q. What happens when the oxy torch is used to burn out rivets on the side of a ship? A. Generally what happens when a burner is burning rivets out of the side of the ship, he burns the bat off and the molten metal generally falls onto his staging, or overboard into the water. That is when he is working on a staging.

30

Q. Do the rivets themselves drop down? A. No. I would say only the molten metal from the bat. From the bat on, there would be part of the shank and head which would be punched back through the hull of the ship.

Q. Can you say how many men were employed on the Sheerlegs Wharf, about the time of this fire?

A. On the wharf or on the ship?

Q. I am talking about your men, of course. Could you give us an idea of each and both? A. I would say roughly maybe a couple of hundred, but I could not be absolutely certain.

40

Q. Of that couple of hundred, where would they be? You have your workshops at the back of the wharf, you have the wharf and the ship? A. They would be working all over the ship. They could be in the engine room, the boiler room, on the holds, overboard on the hull, on the super-structure. They could be anywhere.

Q. You say you spent some time at Cockatoo Dock, before going to Morts Dock? A. Yes.

10 Q. Do the operations and things you have described go on at Cockatoo Dock too? A. I would say that they would.

Q. From your observations, at all events while you were there? A. Yes.

Q. And is that normal dock procedure, where ships are being repaired? (Objected to; rejected.)

20 Q. How does the procedure at Morts Dock compare with the work done at Cockatoo Dock? (Objected to; allowed.)

Q. How does the method of work -

MR. MEARES: You could lead on Cockatoo Dock.

MR. ASH: Q. I think you said the same type of procedure - in oxy, welding, hemp, cotton waste and rivets, all you have been describing - was normal procedure at Cockatoo Dock at that time? A. I would say yes.

30 Q. Have you had any other experience of docks in Sydney, apart from those two? A. No, not docks. I only worked at the two places.

Q. Have you been into any other repair establishments in Sydney Harbour, or elsewhere for that matter? A. Yes. I have been through Walsh Island. (Anything not in vicinity of this area objected to; argued in absence of witness.)

Q. Just before you left the Court, you mentioned Walsh Bay, Walsh Island. A. Walsh Island.

40 Q. What activity have you seen there? A. Shipbuilding - (Objected to - allowed.) Fitting out of ships and docking on a floating dock.

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Q. Have you seen there, when you have been there, any of the incidents and things that I have been asking you about, the operations at Mort Bay? (Objected to; allowed.) A. I would say that things are all very similar, carried out very similarly.

Q. By the word "things", are you having in mind the things you described as going on at Morts Dock, Sheerlegs? A. Yes.

MR. MEARES: There is a Walsh Island at Newcastle. 10

WITNESS: That is the one I mean.

MR. MEARES: I ask that that evidence be struck out.

HIS HONOUR: I will not strike it out.

MR. ASH: Q. Have you been to any other similar types of place? A. Generally, I have been at Melbourne, at the different yards, but that would be about all.

Q. Let us go to Melbourne. You mean you have not been further afield than Sydney, Melbourne and Newcastle? A. Not in regard to the work. 20

Q. What have you to say about the shipbuilding and ship repairing yards you have seen in Melbourne? (Objected to; allowed.) A. I would say the conditions would be very similar. The work, in general, would be very similar in pattern.

Q. Do you know, although you have not been inside them, of any other ship repairing installations in Sydney Harbour? A. There are many waterfront ship repairing installations in Sydney Harbour, but they have no docking facilities. 30

Q. Does ship repairing, even without a dock, involve any burning operations? (Objected to; allowed.) A. Yes, it does.

Q. As regards those repair places that have no dock, where is the repair work done? A. It could be done on any part of the ship that was not under water. It could be on the hull. It could be on the superstructure, internally, in the holds. It could be anywhere.

Q. Could it be externally? A. Yes. Externally they often carry out work. 40

Q. Could it be done on the wharf to which the ship is tied up? A. It could be, yes.

Q. You had a crane on the wharf, did you, on the Sheerlegs Wharf? A. Yes.

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MR. ASH: My friend concedes if I refer to the crane later there is no dispute that is the crane Mr. Parkin is talking about.

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Q. What is the nature of that crane on Sheerlegs Wharf? I understand it runs along the wharf?

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A. It travels along the wharf, the full length of the wharf. It is what we call an overhead cantilever crane. At the time it was operated, and is now operated, with electric drive and at the time of the fire the electricity to the crane was through the wharf and running the full length of the wharf.

Examination  
continued

Q. What does it do, what is it there for?

A. Lifting of heavy weights onto the ship or around about the wharf.

Q. Have you seen similar types of cranes on other docks? A. Yes.

Q. And ship repairing installations? A. Yes.

Q. Is it the type of crane that is used on those? A. It is. It is what I call a cantilever crane.

Q. Have you seen among floating debris any material, cotton waste, cloth, hessian, or anything like that from time to time - (Objected to: allowed.) A. Well naturally along the waterfront you do get waste, cotton waste and different cloths of all sorts, but you would see some. I would have seen some, particularly on the slipway.

CROSS-EXAMINED:

Cross-  
examination

MR. MEARES: Q. Is Sheerlegs Wharf at present being used? A. Well I am not sure. I have not been down there for five years but I would say it would be in a state where it could be used.

Q. You do not know whether it is being used or not? A. No, but I could tell you this - I do not want to mislead anybody - it is controlled differently now to what it was prior to the fire.

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continued

Q. I suppose it would be fair to suggest to you that since this fire on the 1st November 1951 in Mort Bay that your views as to the risk of causing a fire through oil on water have naturally changed considerably? A. No I would not say that.

Q. You would not? A. No I would not say that.

Q. Since that fire and as a result of it did you form the opinion that the risk was greater than you thought it was prior to the fire? A. Well if I may be allowed to answer the question in a different way, I always understood -

10

Q. I would like you if you could to answer me. I will put the question again, and it may be slightly altered: Since the fire did you form the view that the risk of fire was greater from oil on water than you formerly thought it was, prior to that fire? A. No I cannot say that I did.

Q. Perhaps to put it more explicitly to you, your views at the moment as to the risk of causing a fire on the oil that you saw in Mort Bay have not altered at all since, we will say, 1950? A. I would not say they have altered.

20

Q. May I suggest to you before you gave evidence in a case brought by Morts Dock before Kinsella, J. you gave careful consideration to the evidence you were to give? A. This was in the Morts Dock case?

Q. Yes. A. Yes.

Q. And in that case you express certain opinions? A. I did.

Q. And those opinions were carefully expressed by you? A. Yes.

30

Q. And each and every one of them were opinions that were to the best of your knowledge correct? A. Yes.

Q. Of course before giving evidence in the Morts Dock case you had had the advantage of conferences with barristers and solicitors? A. Yes.

Q. And, similarly, in this case you have conferred with the solicitors as to your evidence? A. Yes.

40

Q. And also with barristers, Mr. Ash and Mr. Street, is that correct? A. Yes.

Q. And on how many occasions have you discussed the matter with barristers? A. Two.

Q. And with the solicitors? A. I don't know that the solicitors were present. I don't know I discussed it with them other than that.

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Q. Have you read the evidence you gave in the Morts Dock case, or a copy of it? A. No.

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Q. You were asked this question in the Morts Dock case (p.78): "Had you had previous experience of coming in contact with furnace oil?" and your answer was "Yes". Do you remember that?  
A. Yes, I would say that would be correct.

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Cross-  
examination  
continued

Q. And the next question: "Where did you come across it?" and your answer was "I came across it mostly during my time as foreman at Morts Dock; foreman boilermaker"? A. That would be correct.

Q. And the next question: "Would that be in connection with the work of the Dock at all, in connection with work that the dock was doing on ships that burned furnace oil" and your answer was "Yes." That would be correct? A. That would be.

Q. "What have you had to do with it?" and your answer was "Mainly with that; when we deal with them - the vessels as they come in their tanks are full of oil and they cannot get rid of the oil and we have to carry out certain repairs with the oil in the tanks"? A. That would be correct.

Q. And those repairs that you were thinking of included welding and oxy-welding did it not?  
A. Mostly welding, yes.

Q. "Have you actually carried on welding operations on ships' tanks with the furnace oil in them?" and your answer was "Yes". The men working for me have."? A. That would be correct.

Q. And the next question "Under your supervision?" and you answered "Working under my supervision".?  
A. That would be correct.

Q. The next question "At that time - that is leading up to the 1st November - how did you regard furnace oil, as safe or unsafe?" and your answer was "I always understood furnace oil to be reasonably safe". Is that correct? A. That would be correct.



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Q. The next question was withdrawn and then you were asked "What did you know, if anything, at that stage about the possibility of furnace oil not in a tank but out in the open being ignited?" and your answer was "I would think to my experience it would be nearly impossible; out in the open"?  
A. Yes.

Q. And that was your opinion then and is your opinion now? A. That would be correct.

Q. His Honour then said "Supposing something like the contents of an incendiary bomb fell on it?" and your answer was "No. I only mean in relation to the trade, in regard to oxy-acetylene welding or electric welding in the trade, which I am thinking of".? A. Yes, that would be quite correct. 10

Q. And the next question by Mr. Taylor "You mean carrying out all those operations you would not regard -" and I think he was going to say oxy-welding and so on and you perhaps cut him short, but your answer was "As dangerous".? A. That would be correct. 20

Q. And that would still be your opinion?  
A. That would be correct.

Q. And then Mr. Taylor added in the next question "As having any chance of igniting?" and your answer was "I would not, not in the open".?  
A. That would be correct.

Q. This view was a view you had prior to 1951?  
A. Yes.

Q. In 1951? A. Yes. 30

Q. And a view which you still hold? A. I still hold the view, yes.

Q. And it was a view which you had, and still have, over after 30 years of experience in the construction and repair of ships? A. That was my opinion, yes.

Q. And still is? A. Yes.

Q. And in the whole of your experience may I suggest to you that you have never seen fire caused by repairing or ship building operations either in an enclosed space or in the open, apart from the Morts Dock fire? A. Oh well, that is difficult for me to answer, Your Honour. I have seen small fires started. 40

Q. What do you mean by that? A. If a man is burning here (indicating) it might set alight, just where he is working and he puts it out; usually they have the protection there with oil, they have a Foamite extinguisher or something like that.

Q. That is he is working in an enclosed space in the presence of oil? A. Well I would say yes.

10 Q. And you have never seen any fire caused by oil, in the whole of your experience, in open water? A. I could not say I have.

Q. And in 1951 you had never heard of such a happening? A. No, I haven't heard.

HIS HONOUR: Q. Had you ever before seen any considerable amount of oil in the open on the water? A. No, Your Honour, not to that extent that it was there that day.

20 MR. MEARES: Q. May I suggest to you from time to time you had seen concentrations of oil in and around the piles and the foreshores of the Bay? A. I cannot say I noticed a lot.

Q. You have never seen concentrations there? A. There would be an infiltration of a very small quantity may be from a bucket or something like that which you would not take any notice of.

Q. Is that all you have seen in Mort Bay? A. That is all - oil on the water.

30 Q. Of course from the Tuesday at about twelve o'clock until the following Thursday, 1st November, at two o'clock in the afternoon, oxy-acetylene operations were being conducted on the Sheerlegs Wharf? A. From what time did you say?

Q. From the Tuesday when you ordered operations to continue? A. That would be correct.

40 Q. And not only were the oxy-acetylene operations being conducted in and around the wharf but there were also oxy-acetylene and welding operations being conducted on the ship? A. On the ship, that would be correct.

Q. And additionally during those two days - I am not suggesting continually - there were welding operations being conducted by a man on a staging alongside the outside of the ship? A. Well that would be quite possible but that could be done without my knowledge.

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Cross-  
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continued

HIS HONOUR: Q. You do not know yourself whether or not that was so, is that what you mean?

A. No. The man in charge of the job would know where that man was working but it would be quite possible he would be working there. I cannot recall seeing him.

MR. MEARES: Q. You rang up the Maritime Services Board on the Tuesday? A. No, I did not personally. I got our shipping clerk to do it, a Mr. Allan.

Q. And following upon that did you ring up Caltex? A. I think I rang Caltex before that. 10

Q. Who did you speak to at Caltex - (Objected to.)

HIS HONOUR: I will allow that much of it.

MR. MEARES: Q. Who did you speak to at Caltex?

A. When I rang Caltex I asked for whoever would be in charge -

Q. No, who did you speak to is the question?

A. Mr. Durack.

Q. And did you have a conversation with him relating to the question of resuming your operations on the Sheerlegs Wharf - (Objected to; question pressed; rejected). 20

Q. Was it after you spoke to Mr. Durack that you resumed, or ordered welding and oxy-acetylene operations to be resumed; after you spoke to Mr. Durack? A. The time was after that - (question objected to; allowed).

Q. Do not answer this question for the moment. Was it on account of something Mr. Durack told you that you resumed welding and oxy-acetylene operations? - (Objected to; rejected). 30

Q. Leaving out the foreshores of Morts Bay, would you agree with me that you would not be able even to guess at the thickness of the oil on the water? A. Oh, no, I would not agree with that. It would be covered with a reasonable thickness of it.

Q. First of all, where the oil was on the water was the colour of the surface black? A. I would say no, it was not black. It would be greenish. 40

Q. Was it quite different from the colour of the water? A. Oh yes, quite different.

Q. So what you saw on the top of the water was something that, as far as you could see did not consist of some oil plus water? A. That would be correct.

Q. And you could not see under this greenish substance? A. It was too thick to see under it.

Q. Would you please answer my question. You could not see under it? A. No, I could not see under it.

10 Q. Was that the only reason you had for thinking it was thick, or reasonably thick, out in the Bay? A. No, it was not the only reason.

Q. What other reason did you have for thinking it was thick? A. It was standing above the level of the ordinary water.

Q. Could you see where the ordinary water was? A. Yes you could.

20 Q. What do you mean it was standing up above the level of the ordinary water - I am talking of the Bay, not the edges you know? A. Yes. If I could be allowed to explain this, you can see oil spilt on the water and it is only paper thickness, just a scum, and it goes all colour.

Q. It goes what? A. All colour on the water.

Q. You mean to say it leaves a sort of set of different colours? A. Yes, different colours on the water, and just from the edge of that it stepped up that way (demonstrating).

30 Q. From a light amount of oil to what? A. I would say there would be a yard or so where the oil would be reasonably I would say thin and from there back it was, I would say anything up to a quarter of an inch in thickness.

Q. Did you see the edge of the oil anywhere? A. Yes, you could see it from the bow of the Bulolo.

40 Q. Where was the edge of it? A. The edge of it was in a line from the Sheers Wharf to the Bulolo and close to the Bulolo, the other side you could see the natural water.

HIS HONOUR: Q. It was outside what you have described as being a sort of triangle? A. That is correct.

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examination  
continued

Q. You saw clear water outside what you describe as a sort of triangle? A. Yes.

Q. And that clear met the oil covered water?  
A. That would be correct.

MR. MEARES: Q. You say at that particular point you observed a thickness of a quarter of an inch?  
A. Yes, I would say about that, yes.

Q. Of course that would be but a very rough estimate would it not? A. No, I would not say it would be rough. I would say we in the trade are very used to thicknesses. 10

Q. Whether you are used to thicknesses or not you were looking at this from what distance?  
A. I would say about five feet.

Q. Where were you? A. I was on the end of Joiners Wharf.

Q. And five feet away from the Joiners Wharf you noticed a thickness of approximately quarter of an inch? A. I noticed the thin oil and then from there on the thickness of the oil, yes. 20

Q. You noticed what could be described as a corrugation or a hump, would that be so?  
A. A lifting, a gradual lifting from very thin to a thickness, like a taper.

Q. So may we imagine first of all you saw clear water, is that correct? A. That would be correct.

Q. And then you saw a light discolouration?  
A. That would be the colour, yes.

Q. And then you saw this greenish colour? A. Yes.

Q. And you say from the edge of the greenish colour to the clear water you could see some sort of a lift? A. A rise in thickness. 30

Q. That was the only place you observed it?  
A. Yes, because the other -

Q. That was the only place you observed this rise in thickness? A. That is right.

Q. May I put it to you in the course of your experience in Morts Dock you have seen other spirit and oil in the Bay at various times, at different times? A. Yes there has been. 40

Q. And you have also seen furnace oil in the Bat?  
A. Yes.

Q. And you have seen furnace oil on the fore-shores? A. Yes.

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Q. And oil of other sorts and spirit additionally on the foreshores? A. Yes I would say yes; not in any quantity.

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Q. But you have seen the clear evidence of the discolouration and the existence of it? A. Of oil, yes.

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Cross-  
examination  
continued

10 Q. And you have seen that in and around the Sheerlegs Wharf? A. Yes.

Q. And whilst it has been there the ordinary operations described by you to Mr. Ash, welding and oxy-acetylene cutting, has been going on? A. Yes.

Q. On this occasion of this spillage of oil you never obtained any analysts', chemists' report as to the constituents of the oil or its dangers before you resumed welding? A. No I did not.

20 Q. You described an incident at Woolwich when there was a tanker full of oil, as I understand you to say, and there was a fracture on the hull plate just above the water level, is that correct? A. That would be correct.

Q. Where was the oil in relation to the hull plate? A. Inside the tank. On one side would be where the welder was and on the other side of the plate would be the tank full of oil.

30 Q. Was there oil on the hull? A. It was dripping through, coming through the crack, slightly, as the welder welded it.

Q. I was not going to put that to you because I would have thought the oil would be in a tank inside the hull, or is that wrong? A. In tankers the skin of the ship is the side of the tank.

Q. So actually on this ship as a result of the fracture in the hull plate the oil was dripping through? A. Yes.

40 Q. The leak was a leak from a large oil tank full of oil directly through the side of the hull down into the water? A. That would be correct - into the dock because the dock was dry.

Q. What was the size of the leak? A. It would not be a big leak, It would be just like a drip.

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examination  
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HIS HONOUR: Q. I think you said before how long the fracture was? A. I would say roughly 11 to 12 inches, from my memory.

MR. MEARES: Q. Was it dripping right along that eleven or twelve inches? A. It was vertical. It was a vertical crack and as he was welding it the flame was just above his torch.

Q. I am asking about the dripping? A. It was vertical.

Q. This man was using an electric holder, welding apparatus? A. Electric. 10

Q. Actually welding in the vicinity of this oil? A. Yes.

Q. Right against the crack? A. Yes.

Q. With the oil dripping out? A. Yes.

HIS HONOUR: Q. His job was the closing over of the crack? A. He had to try and seal it to make the ship seaworthy so that there would be no spillage at sea.

Q. That is what he was trying to do at the time? A. Yes. 20

MR. MEARES: Q. Were you in charge there? A. Yes I would be in charge.

Q. You authorised this undertaking? A. Yes.

Q. When was that? A. I could not tell you exactly. It was during my time as foreman boiler-maker which was in the first fifteen years of my term at the Dock, but I could not tell you exactly when because we docked many ships.

Q. And that is an undertaking you would authorise now? A. If the welder could do it. This was a specialised welder. 30

Q. Was the welder working on a stage? A. Yes he was working on a stage.

Q. And he had his torch, his holder, and no precautions of any sort were taken? A. Oh he had a foam extinguisher on the stage.

Q. Of course the heat he would be applying from the welder would be infinitely greater than from an oxy-acetylene torch? A. No I would not say that. They both come to a heavy heat. 40

Q. Would you know, tell me if you do not?  
 A. I would say I would know that both an oxy-welding torch and an electric welder both come to a moulting point.

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Q. How long was he doing this? A. I would say it took him about two to three hours.

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Q. He never had to use the foam? A. No.

Q. During that two to three hours he was welding constantly, substantially speaking?  
 10 A. Yes, well reasonably speaking, yes. They would go so much and then stop, and then so much and stop.

Cross-  
 examination  
 continued

Q. And you were aware or under the impression that the oil that was coming out was furnace oil? A. Yes.

Q. And that the tank inside the ship was full of furnace oil? A. Yes.

HIS HONOUR: Q. Are you able to say the thickness of the hull plate? A. I would not say with  
 20 certainty but I would say approximately three quarters inch to seven eighths inch; between three quarters inch to seven eighths inch because tankers' hulls are reasonably thick.

MR. MEARES: Q. And this was a crack? A. Just a fraction, yes.

HIS HONOUR: Q. I suppose any oil of this kind that came out would ooze out very slowly?

A. The heat would bring it out as he was doing it. The surveyor first found this and asked  
 30 could we weld it and we said we could endeavour to do it, which we successfully did. We never had any comeback from it.

Q. This would leak more slowly than a lighter liquid, say water for instance? A. Yes I would say it would.

MR. MEARES: Q. Of course what you have got to do in the welding operation is to get the plate to a melting condition? A. That is correct.

Q. And the plate you were welding was an  
 40 iron plate? A. Mild steel.

Q. You say in your opinion from welding there is a greater spark spread than from oxy-acetylene cutting, or is it the other way around? A. I would say the greater from the oxy-cutting.



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Cross-  
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continued

Q. The only cutting that was being carried on on the wharf was cutting being done on the mast from the Tuesday until the happening of the fire?

A. Well I would not be able to say that exactly but I would say that would be reasonably correct.

Q. And the mast of course was inboard from the edge of the wharf a matter of 20 feet or 30 feet?

A. No, I would say about 10 feet. I would say about in the middle of the crane track.

Q. At any time when you went there after you ordered welding operations to be resumed did you see anybody welding or cutting without using a bag? A. No I did not.

10

Q. And in addition to the bag did they have tin under them? A. I would say yes mostly.

Q. And the bag was roughly the size of a cornsack? A. That would be about the size.

Q. In your opinion is that an adequate protection for falling sparks? A. Yes, it is but they could go further than that.

20

Q. And also for slag and molten metal? A. Yes.

Q. I suppose the sparks would tend to go farther than the slag or molten metal? A. Well I would take it that the sparks are the molten metal.

Q. I suppose however, the lighter the piece the further it would go? A. Yes, I would say the original metal they bring to a welding point would go further.

Q. Of course from the time you ordered operations recommenced until the fire you never saw any hemp or tow of any sort or anything like it being used for the purpose of lighting torches? A. No, I never saw that, not at that time, no.

30

Q. The welding that was going on on the ship, was that being carried on inboard the ship?

A. Well I would say mostly inboard but it is quite possible there could have been one welder outside but the charge hand would be the only one - I would not say with any authority that he was but I understand, I believe, he was there.

40

Q. In addition to some 200 men of Morts Dock working in and about the Sheerlegs Wharf there were a number of men of R.W.Miller's? A. Yes there were.

Q. Those men were engaged in repairing the Corrimal with the Morts men? A. They were, yes.

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(Following an application by Mr. Ash that the reference to the men being the men of R.W. Miller be struck out, His Honour directed that it be noted that there was not yet any evidence that the men referred to were employed by either of the plaintiff companies and the witness' answer did not provide any evidence they were employed by the plaintiff companies).

No.10

T. G. Parkin  
7th February  
1963

10

Cross-  
examination  
continued

MR. MEARES: Q. Did you go round to the Sheerlegs Wharf with Mr. Durack? A. Within the vicinity. Not right onto it.

Q. And when was that? A. That was on the morning of the first day, the Tuesday.

Q. Approximately what time? A. Between nine and ten.

20

Q. Before work was resumed? A. Before the work that was stopped was resumed, yes.

Q. At that time was any work going on? A. The normal work that did not entail welding or burning would be going on.

Q. So may we take it the only work you stopped was the oxy-acetylene burning or the welding? A. Yes, that was my instruction to the charge hand.

Q. So the other work was continuing uninterrupted on the Tuesday morning? A. That would be correct.

30

Q. And that involved of course work on the ship and work on the wharf? A. Yes that is correct.

HIS HONOUR: Q. What other work on Sheerlegs Wharf was being done at that time, what sort of other work? A. There are markers-off marking their work, preparing their work and doing any sort of fabrication that does not need welding or burning.

40

Q. But getting to this specific case, I had the impression all you were doing on the wharf at this particular time was doing something to the mast. Were there other jobs going on on the wharf at this particular time? A. I would not be able to say with a lot of authority but I would say they would be working on board the ship, inboard.

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T. G. Parkin  
7th February  
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Cross-  
examination  
continued

MR. MEARES: Q. And also on the wharf? A. Could be on the wharf.

Q. May we take it of the 200 men you had employed there, on the morning of Tuesday all but half a dozen approximately were engaged in the repairing of the Corrimal either on the wharf or in the Corrimal? A. That would be correct.

Q. And all carrying out their usual duties? A. That would be correct. There could be painters there.

10

Q. You went with Mr. Durack between nine and ten and you say you never actually got on to the Sheerlegs Wharf? A. I cannot recollect going right onto the wharf. We put most of our time on the slipway.

Q. I will read out what you said in the other case, which is a little equivocal: "When you got around to the Sheerlegs Wharf with Mr. Durack was that the first time you had been on the wharf itself?" and your answer was "The first time I had been on the wharf" then you were asked "When you got there could you see any oil?". Does that now refresh your memory? A. Only to this extent -

20

Q. I will continue: "When you got there could you see any oil?" and your answer was "Not on the wharf. Where we were standing we could not see any". Would that be correct up to that stage? A. If I could explain -

Q. Let me put the next two questions in case I am charged with being unfair: "Where were you speaking to him?" and your answer "I was standing more back on the land adjoining the wharf"? A. That is what I was going to tell you.

30

Q. You walk along the shore line? A. Yes, you go around in a circle past two ship building berths and there is a roadway leading right up to the edge of the Sheers Wharf and standing on the roadway you can see the water and Bays but you are not actually on the Sheers Wharf. By my recollection I remember walking up onto the roadway quite near to the Sheers Wharf.

40

Q. How far would you say at any time you were from the water when you were in the vicinity of the Sheerlegs Wharf? A. Roughly about 14 to 20 feet.

Q. On that occasion did you look under the wharf? A. I don't remember looking under the wharf on that occasion?

Q. Were you aware there was oil under the wharf? A. Yes.

Q. And you cannot say whether there was any oil on the starboard side of the Corrimal?

10 A. No I could not say that with certainty. Did you say the port side? The port side was to the wharf. There would be oil on the port side but on the starboard side there would be none. To my memory there was none on the outboard side then.

HIS HONOUR: Q. Were you in a position to see from this point you have just described?

A. Not exactly but I could see the rudder and it appeared to come from the rudder straight across the Bay; the rudder of the Corrimal.

20 MR. MEARES: Q. However, you assumed the existence of oil underneath the wharf and between the wharf and the Corrimal on the port side of the Corrimal, is that correct? A. I assumed what?

Q. The existence of oil? A. Yes.

30 Q. When did you next go along? A. Well I would think it is quite possible I would go rather frequently. I could have gone that same afternoon and had a walk around which would not be for any other purpose than just walking around, which I may not recall, but I constantly went around the works.

Q. May I take it you went to the Sheerlegs Wharf on the Wednesday? A. Definitely on the Wednesday, yes.

Q. Once, twice or more? A. I would say more. I would go before nine o'clock. I would go after nine o'clock and I would go sometime in the afternoon.

40 Q. And on the Thursday morning? A. Do the same thing, about twice, morning before nine o'clock and before lunch.

Q. So prior to this fire, after the oil was spilt, you would have been on that wharf five or six times? A. Yes.

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No.10

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1963

Cross-  
examination  
continued

Plaintiffs  
Evidence

          
No.10

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Cross-  
examination  
continued

Q. Were you interested in observing the oil?  
A. Oh I followed that mostly all the time.

Q. Did you ever look underneath the wharf?  
A. There are steps which you can go down, which I did at one time, I could not say exactly which day it was, but I did go down and look.

HIS HONOUR: Q. You are speaking now of steps at the dock end of the Sheerlegs Wharf? A. Yes, there are steps there and you can go down and there is an underneath pathway which goes under the wharf and you can walk along it. 10

MR. MEARES: Q. Did you see oil under the wharf?  
A. Yes.

Q. And between the wharf and the Corrimal?  
A. Yes.

Q. And starboard of the Corrimal? A. I could not say starboard of the Corrimal. I was not in a position to see that.

Q. Was oil on some of the steps at low tide, or underneath? A. The lower platform would have oil on it. 20

Q. The oil you saw from the time you saw it until the fire, did it change in its consistency or remain the same? Did it lessen or increase?  
A. It did not appear to me to change much at all.

Q. As far as underneath the wharf was concerned, what was the colour of it? A. It would be difficult. It is dark under there, much darker under there.

Q. And you were not able to observe any corrugations under there? A. No. 30

Q. And you did not notice for instance any particular collection of it around the piles or any other object? A. Other than it was just fairly thick.

(Luncheon adjournment).

AT 2 P.M.

MR. MEARES: Q. The trades of the personnel that were employed by Morts Dock together with other personnel working in and about Sheerlegs Wharf would include what? A. Well they would approximately include many trades. (Question objected to: 40

allowed). I would say there would be painters and dockers, engineers, boilermakers, iron workers and their assistants, professional painters, joiners. There may be one or two other sundry trades but they would be the principal ones.

Q. On the wharf there was a diesel engine at the time of the fire and for some days preceding it? A. A large diesel engine?

10 Q. Yes. A. That is correct.

Q. Out of where did that come? A. That stumps me a little. I believe it was an Australian Shipbuilding Board engine to be installed in a vessel we were building. I believe that to be correct.

20 Q. Whereabouts was it on the wharf? A. It would be half on the land and half on the wharf because it was very heavy and if had to be lifted there by the Titan. I would say about abreast of the engine room of the Corrimal.

Q. It was being dismantled and repaired? A. It was being dismantled to such an extent that would allow it to be lifted by the crane. It was too heavy as one.

Q. The crane of course was working during these days after the oil came on the water and before the fire? A. The cantilever crane? Yes. That would not have anything to do with the engine other than smaller parts.

30 (On subpoena duces tecum John Carmer Weingarth produced a bundle of documents. Mr. Ash stated that certain documents relating to damage had been handed to his instructing solicitor and he felt he should mention this fact as they may be relevant to the subpoena).

40 Mr. MEARES: Q. To the best of your recollection from the time oxy-acetylene burning and electric welding was recommenced on the Tuesday until the time of the fire occurrence iron and wet bags were placed underneath the welders or burners and in addition they had alongside them a bucket of water where they were working? A. That would be correct.

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Cross-  
examination  
continued

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Cross-  
examination  
continued

Q. Did you express this view in a statement which you made to Morts Dock in connection with this occurrence, after it had happened: "From my experience I have seen heavy fuel oil before and it was my view that this oil would not catch fire".? A. Well, yes, I would say I made that statement.

Q. And you adhere to that now? A. Yes, that is a statement I made.

Q. And did you express this view: "It has been common practice when a tank containing fuel oil has to be repaired that provided it is topped up then there is no risk of fire if welding takes place on that tank."? A. That is correct. 10

Q. And in fairness I think I should add this: Did you also say "When the tank is not full and it is not possible to fill it then the work can be carried on if a blanket of steam is placed in the tank above the oil".? A. That would be correct. That is practice. 20

HIS HONOUR: Q. Your expression "topped up" means filling it right up? A. Anything where it is not full pressure - full up - we call it not topped up.

MR. MEARES: Q. And you said that exactly the same work was being carried on on the afternoon of Thursday 1st November - and I add the date - as was being carried on on the whole of Tuesday and Wednesday? A. That would be correct.

Q. I take it, in fairness to you, you mean with the exception of the burning and welding that was discontinued for a few hours? A. Yes, I understood that question to be since we started operations again. 30

Q. Did you also make this statement: "It is my practice to go around the dock twice or sometimes three times a day and on the day of the fire I did not have reason to look under the Sheerlegs Wharf but it appeared to me that the oil was slightly less intense on the Thursday than it had been on the Tuesday and Wednesday".? A. I cannot actually recall that but if it is down there as a statement by myself it must be correct. 40

Q. In fairness to you I am reading what purports to be a copy, I mean it is not signed by you. (Witness approached and shown document). It states "Thomas George Parkin, Works Manager, states...."

That is your statement? A. Well I don't know who that would be to. I wonder who that would be to? It appears to be a statement which could have been made by myself, but I do not know -

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Q. When you say "It could have been made", would you have a look at it quietly? A. It looks to me, Your Honour, like a statement taken from some evidence or something like that. I would not know but it looks correct, that it is a statement by me.

T. G. Parkin  
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Cross-  
examination  
continued

Q. Did you say "I did not have reason to look under the Sheerlegs Wharf" - this was on the day of the fire - "but it appeared to me the oil was slightly less intense on the Thursday than it had been on the Tuesday and Wednesday. In fact it appeared to be breaking up but there was still plenty of oil around the foreshores".? A. I cannot actually recall that but it is more than likely correct. I would say it would be correct because it is there as a statement.

Q. And also, might I suggest to you, because it was made at or very close to the event? A. No, it could be a good number of years after. It could have been at the Court case five years later.

Q. You never on the Tuesday, Wednesday or Thursday observed any debris underneath the Sheerlegs Wharf? A. Well I would not say that I did because I never inspected it for such.

Q. Of course you did say at the last hearing words substantially to this effect: That as far as cotton waste was concerned that the men were provided with receptacles, is that so? A. That would be correct, yes.

Q. And there would not be very much cotton waste around the wharf? A. Well yes, I would make that because I think you made an inspection of the wharf after that statement.

RE-EXAMINED:

Re-examination

MR. ASH: Q. Mr. Meares only saw you on the wharf when he made an inspection of the wharf during the case -

MR. MEARES: No, I did not see him on the wharf, I went on my own.



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Re-examination  
continued

MR. ASH: Q. Anyway you went back during that case to inspect the wharf and you found some cotton waste on it - (Objected to; question not pressed).

WITNESS: That is in the transcript.

MR. ASH: Q. You were asked whether you had seen Mr. Taylor in conference earlier and whether you had seen me in preparation for this case. Do you remember being asked that? A. Yes.

Q. Was there any other counsel who has asked you questions this morning that you saw in conference before this case? A. Any counsel? 10

Q. Any other barrister you saw in conference before this case? A. There was a gentleman called at my house.

Q. I mean in Phillip Street? A. Any other barrister? Not that I would know. You mean today?

Q. No, during the last week or two? -

MR. MEARES: I think he refers to me.

MR. ASH: Q. Did you see Mr. Meares? A. No, I did not recognise Mr. Meares until we were in Court again today. 20

MR. ASH: That is all I wanted to ask this witness, except there is this point: Mr. Parkin was asked some questions by my friend relating to other employees in and around the ship. It has occurred to me that it might be related to his defence of contributory negligence, but how it is going to develop I do not know. As a matter of convenience there would be two questions I could ask Mr. Parkin now arising out of that, but if I did that- 30

MR. MEARES: There would be no objection to you splitting your case on that.

MR. ASH: Q. You mentioned the fact that there were some other men other than Morts employees you thought at this scene, I will put it that way? A. Yes.

Q. As far as you remember were they inboard or outboard? A. I would say they would work inboard entirely.

Q. Are you able to say whether any of them were welders or oxy-welders, or not? A. I would not be in a position to say that. 40

(Mr. Ash requested that the document from which Mr. Meares had cross-examined the witness be marked for identification. For the purpose of convenience Mr. Meares stated the document was page 42 of the bundle of documents previously produced on subpoena (p.100 of present transcript)).

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Re-examination  
continued

10 MR. MEARES: Q. (By leave). When you expressed the view you think they would be working inboard you have no distinct recollection of seeing them or any of them on any inspection from Tuesday to Thursday? A. Seeing any of them?

Q. Yes. A. No, I have not any recollection of seeing any of them.

Q. You were not looking particularly for them or interested particularly in them? A. No I was not.

(Witness retired and excused).

20 (Two documents relating to winds and tides tendered and marked Exhibit "B").

No.11

N. Y. Kirov  
7th February  
1963

Examination

No.11

Evidence of N. Y. Kirov

NICHOLAS YORDAN KIROV, Sworn, examined, deposed:

TO MR. ASH: My full name is Nicholas Yordan Kirov, I live at 18 Ashmore Avenue, Pymble.

Q. You are Associate Professor and Head of the Department of Fuel Technology at the University of New South Wales? A. Yes.

30 Q. Is the Department of Fuel Technology something special at the University? A. It is a special feature of that particular university and it is the only department in Australia, in Australian Universities.

Q. I would like to traverse your professional qualifications and I will lead on then. You are a Bachelor of Science of Leeds University, in 1942? A. Yes.

Q. You are the British Council Scholar at the University? A. Yes.

40 Q. Master of Science in 1943 at Leeds? A. Yes, in the Department of Fuel and Fuel Gas Engineering.

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Examination  
continued

Q. What does that mean? A. It is a composite department there, metallurgy, fuel and gas engineering and now they have chemical engineering. It is a School of Applied Science. I did research in the Department of Fuel and Gas Engineering.

Q. For that research, and I take it through examination, you became a Master of Science? A. Yes.

Q. Your main experience has been in combustion oil? - (Objection to leading).

Q. Were you ever with any Ministry in any capacity? A. For just over a year I worked with the Ministry of Fuel and Power in England.

10

HIS HONOUR: Q. When was that? A. As a Fuel Efficiency Engineer in the last year of the War, about 1943 and the early part of 1944 - mainly 1943.

MR. ASH: Q. Were you ever associated with the British Coal Research Association? A. Yes. Subsequent to getting my Degree at the university I went to Leatherhead, Surrey, in England, at the British Coal Utilisation Research Association where I was employed in the Combustion Engineering Department in various positions on the research staff and for a number of years I was Senior Scientific Officer and Acting Superintendent of the Boiler and Combustion Department.

20

Q. How long did you hold the post of Senior Scientific Officer in the Association? A. About three or four years. I was there for seven and a half years.

Q. Up to 1951 you did something, what was that? Before 1951 were you in charge of a team? A. Yes.

30

Q. What was the team? A. That was of the British Coal Utilisation, a team investigating combustion problems in boilers and furnaces and generally the behaviour of solid and to some extent liquid fuel in combustion.

Q. In 1951 did you take an appointment with anyone? A. Yes, towards the end of 1951 I took up an appointment with the C.S.I.R.O. as a Senior Research Officer and was sent round to various combustion organisations and research organisations in Britain to study certain aspects of the problem before I came out to Australia. I arrived here in March 1952 to take my appointment with the C.S.I.R.O.

40

Q. Any particular division? A. Yes, the Division of Fuel Research at that time consisted only of the Coal Research Section and I was in charge, or rather I was given the job to build up a team and establish research in the field of combustion.

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Examination  
continued

10 Q. What office did you hold for the next six and a half years within that? A. I went to the top of the Principal Research Officer Grade and on three occasions, for periods up to eight months, have acted as Officer in Charge of the Section which at the time employed up to 100 people.

Q. What were your duties? A. Mainly to carry out the research on various aspects of combustion, supplemented by general guidance and some administrative work in the absence of the Officer in Charge.

20 Q. After that, in 1958, did you join any institution? A. Yes, in 1958 I applied for a position at the University of New South Wales when they advertised for a Senior Lecturer's position in Fuel Technology, with a view to that Senior Lecturer establishing the first courses in Fuel Technology in Australia. I was given that position in 1958 and subsequently, with the establishment of the Department of Fuel and courses at Undergraduate and Postgraduate level I was appointed to Associate Professorship.

30 Q. In 1961 did you organise anything? A. Yes, in 1961 as part of my extra-curricular activities with the Australian Membership of the Institute of Fuel we held a national symposium under the title of Australian Oil Fuels and Their Utilisation in which we presented about ten papers. I was the organising secretary of that symposium and presented two of the papers and that was attended by well over 300 people from all over Australia.

40 Q. Were there any representatives there from non professional bodies? A. Oh I suppose there were, yes. But they were mainly members of the Institute of Fuel and various representatives of the Fuel industries.

Q. Were the Australian oil companies represented? A. Oh yes. Half the papers were presented by members of the oil companies.

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Examination  
continued

Q. In 1961 you were appointed Associate Professor of that Department? A. Yes.

Q. Going back now, in 1947 did you pass any other examinations in England? A. Yes, I took the examination of the Institution of Civil Engineers, the Associate Membership Examination of the Institution of Civil Engineers in England, which is one of the three main engineering institutions in England.

Q. Have you been Members of other British Institutions? A. If I could just explain about this Civil Engineering, I passed those examinations and was admitted to Associate Membership of the Institution of Civil Engineers. I have been since possibly 1943 a member of the Institute of Fuel in England, the British Institute of Fuel, which is a chartered institute. A corporate member is designated a Chartered Fuel Technologist. I started as an Associate Member in 1943, went to Full membership and about three or four years ago was invited by the London Council to join the highest grade Fellow. This is only possible by invitation of the Council. 10 20

Q. Is there a body known as the Australian Membership of Institute of Fuel? A. Yes.

Q. What office do you hold in that? A. At the moment I am the Chairman.

Q. What is that institute? A. The Australian Membership of the Institute of Fuel is a branch of the British Institute of Fuel and has eight groups in the various States or major cities in Australia. There are sections of those institutes in the centres. It is governed by the National Committee, that is the Australian Membership National Committee with headquarters in Sydney and I am the Chairman of that Committee. 30

Q. Are you a member of any other institute in Australia? A. Yes, I am a full member of the Institution of Engineers of Australia.

Q. Have you ever published any scientific papers on matters relating to fuel and combustion? A. Having done about sixteen years on research work on these matters I have. 40

Q. Approximately how many have you published? - (Objected to). How many papers have you published on matters relating to combustion of fuel like furnace oil, dealing with that either wholly or partly? A. May I explain on that question?

10 Q. Yes. A. I have come to the view in my research and experience and in teaching that you cannot isolate the study of one fuel in relation to combustion. The process or mechanism of combustion is basically the same for all fuel. If I have done a paper on research into the combustion of coal that has some relevance on the combustion of oil because the first thing that happens when coal is heated is tarry matters, matter similar to heavy fuel oil will come out and their combustion is basically similar to oil.

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Examination  
continued

HIS HONOUR. Q. I think you spoke of being for some seven years with a coal utilisation research body in England, is that right? A. Yes.

Q. And afterwards being a research officer with the C.S.I.R.O.? A. That is right.

20 Q. Were you concerned primarily in those two positions with the combustion of coal or did it extend generally to various fuels? A. I have been mainly concerned with the combustion of hydrocarbon fuels, gas, liquid and solid.

MR. ASH: Q. Is furnace oil a hydrocarbon fuel? A. Yes.

Q. I want to cut this short if I can: Have you published 40 to 50 papers? A. Yes, I have published something of that order in technical and scientific journals.

30 Q. On matters relating to fuel? A. Yes. I have probably published another 30 confidential reports for the research organisations with which I worked.

40 Q. And other unpublished reports I suppose. You have directed your mind to the matters of this oil spill at Mort Bay and the subsequent fire. Perhaps you could tell me this first: We have heard the term flashpoint used and if I could just jump forward a bit it is agreed on all sides that the oil which was taken into a ship, the "Wagon Mound" was of a flashpoint of 170 degrees, of that order. I will come further to the flashpoint later. Could you tell me, first of all, what flashpoint is? A. Flashpoint is a determination which is carried out by laboratory methods by a closely standardised type of instrument which is designed to determine a certain characteristic of a fuel, a liquid fuel, known as a

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Examination  
continued

flashpoint and it is the temperature at which, when that sample of fuel is heated under the standard conditions, progressively, the first vapours that come off will just ignite temporarily.

Q. Is that the same or different to the ignition of fire point? A. The fire point is usually a little bit higher than the flashpoint. It is carried out in the same way and would be continued with the same apparatus by gradually increasing the temperature, but here we are more concerned with achieving sustained burning, not temporary flash. 10

Q. What are the explosion and fire hazards of a fuel oil assessed by? A. This is one of the tests. The flashpoint usually is a test which is stated, I understand as a legal requirement, in the handling of fuel oils. There is a certain minimum which should be exceeded before a fuel could be classified as a fuel oil to be handled with some degree of safety. I think that limit in various countries differs and even for different suppliers it differs. In the United States for the Navy it is of the order of 130 but in British countries and in Australia it is about 150. (Evidence objected to as irrelevant). 20

Q. Perhaps I could ask you this: Are flashpoint and fire point two of the matters in assessing fire and explosion hazards, and is there another matter? A. Yes. Limits of inflammability are sometimes used as a measure of the ease of igniting and propogating ignition. 30

Q. What are the limits of inflammability? A. It needs a little explanation. To burn a fuel you have to have a combustibile and something to support combustion; that is the oxygen in the air. Within certain proportions of oxygen and fuel you can ignite that mixture. Outside that limit you cannot. The limits of inflammability, lower and upper limit, delineate the range of fuel oil mixture which will propogate flame. That differs with different fuels. 40

Q. I want to come to the behaviour of furnace oil. Unless I speak to the contrary I am speaking of furnace oil which the parties agree is 170 degrees flashpoint. First of all, how does furnace oil behave when it is poured onto water, to be specific on salt water? A. It just spreads out in a film, depending on its gravity.

Q. Does it sink or remain on the surface of the water? A. Most oils will float. It is most unusual for an oil to have a specific gravity greater than even ordinary water.

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Q. Does furnace oil have a specific gravity heavier than water? A. No.

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10 Q. Then it spreads on the water. Does it move in a harbour with the tides and the wind. A. It depends how thick it is and how heavy it is as to how it will spread. Normally the heavier the fuel oil the less it will have a tendency to go into a very thin film.

Examination  
continued

20 Q. Did you say the less it will tend to go into a very thin film? A. Yes. If you pour diesel oil the diesel oil being very much lighter tends to spread out in a much thinner film over a wider area than the thick film which tends to build up. It also seems to have an effect of contaminating the water surface which enables it to build up in thicker layers.

Q. You are speaking of furnace oil now? A. Yes.

Q. Did you say it contaminates itself? A. In other words it prevents itself from spreading in a very thin film.

30 Q. In a harbour, or a bay of a harbour that has been described as dirty or somewhat dirty, does the oil do anything different or behave any different? A. Well I would not be very much familiar with the exact circumstances existing in that particular case, but normally if the surface of the water is contaminated the oil will tend to build up in a thicker layer.

40 Q. Can it be affected by wind passing over the surface of the water. Will it spread more or less? Does it move in with the tides or what? A. The oil on the surface of the water will probably have a certain amount of damping effect. It will tend to restrict the movement of the water. It will certainly move with the tide.

Q. How do you describe furnace oil, as combustible or not combustible? A. It is a fuel.

MR. MEARES: I do not think there is any doubt it is combustible.

HIS HONOUR: I think the answer was completely adequate, it is a fuel.



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Examination  
continued

MR. ASH: Q. I want you to assume some facts, Professor. Have you been shown a photograph of the Sheerlegs Wharf underneath, or are you familiar with it? A. I was shown a photograph of a wharf. I could not identify it with any particular wharf.

Q. (Witness approached and shown photographs). I show you photograph No.3. That is a photograph of the Sheerlegs Wharf taken from the bay end showing its length. I show you Photograph 5 which is a close up photograph of portion of the underneath part of the Sheerlegs Wharf showing piles and cross members. You can take it that the Sheerlegs Wharf from the outer extremity pile runs back at water level some 40 feet to a retaining wall of irregular direction but running along the shore, and old stone retaining wall and which covers a substantial part of the shore side of the wharf, but at the end there is a bit of ordinary shore with small rocks on it. I also show you photograph No.6 which shows you a still closer up look of a certain section under the wharf with certain cross members. I also show you photograph No.4, which is the top of the wharf, from the outer extremity into the shore level. Would you take those as given a general picture of the underneath of the wharf, which we are told is 680 feet long and there was tied up to the wharf a ship 235 feet long. Whether it was tied up right next to it midships - you can assume it was either next to it or within a few feet of it, there may have been a fender underneath four feet wide at water level, but it was pretty close at all events. I want you to take these further facts: A fire occurred at this wharf, it occurred about two p.m. on a Thursday, 1st November 1951. The early hours of the preceding Tuesday, 30th October, at all events from just before eight o'clock on, there was seen under the full length of this wharf and extending outwards to the inside flank of the ship, which was its port side, oil - furnace oil - covering the water. It has been described as thick, ranging in assessment from one inch down to a quarter inch and some say it remained at fairly constant thickness and others that it thinned out on the water by the Thursday. Against the piles and the foreshores and the stonework and the steps going down into the water it banked up and in that immediate area remained banked up throughout the period and that banking up has been described as quite thick and having a corrugated

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effect, running back from the retaining wall or steps, by one witness, by all the witnesses as being banked up around all these fixed objects. You can further assume there was a certain amount of debris in and about the area under the wharf, that debris consisted of pieces of various sorts of wood, in particular floating bits of box wood, perhaps a box, sticks, and various items of material such as hessian or cloth or cotton waste and other odd bits of debris of various descriptions - even a dead animal - at all events, debris there -

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10 MR. MEARES: With every great respect we might get to the facts of the case. Are you not running the risk of putting a false hypothesis to the witness, of getting all these things under the wharf?

20 MR. ASH: Q. Withdraw the assumptions about debris for the moment. I do not think there is any dispute on the measurements and the condition of the wharf. I will stop there for the moment and say that oil remained there from approximately eight o'clock on the Tuesday morning up to two o'clock on the Thursday, with various tides operating and a bit of movement there and that the wind changed direction from time to time, and if it would assist you in forming an opinion you may have before you a precise record of the hours of change of winds. First of all, assuming that oxy torch operations and electric welding operations were going on above the wharf with the likelihood that molten metal might go down through the wharf or over the wharf or those things for a distance of some ten feet, can you give any opinion as to whether or not that situation would create a danger of fire or a risk of fire? A. It would depend very much on the conditions but if the molten metal just fell on an oil film on the water it would just go right through and unlikely to cause any damage.

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Q. Assume that the piles of the wharf and the stonework and shore work of the wharf between the falling and rising tide remained fairly well coated with this oil, and that the fire took place about three quarters of the way down a falling tide - it was not low tide but about one and a half to two hours roughly before low tide. Would that have any effect on the situation? A. Well that sort of situation would not surprise me. It is possible

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for the oil to be sucked up the wood by capillary action even without tides and as the tide withdraws it will probably - not probably, but it will leave the exposed wood and piles to which the oil would adhere, yes.

Q. Taking furnace oil on water in a completely open area away from this present situation I have described; is that easily ignited? A. In an open sea?

Q. Yes, in open sea? A. It is extremely difficult 10  
to ignite it directly.

Q. Coming forward from there, does it make any difference if the oil is in a confined or semi-confined space? A. Oh yes, it would make considerable difference.

Q. If it was confined to semi confined in the area under the Sheerlegs Wharf for this period I have told you would that lead to any particular condition, and if so, what? A. Well I believe you yourself described the condition that it leads to by mentioning that it will build up and pile up 20  
against the piles, particularly when the tide withdraws, at low tide.

Q. How is oil on water ignited, if at all? A. It is very difficult to ignite it directly. That is to say, if it floats on the surface of water and is of any immeasurable thickness it is extremely difficult to ignite it with a direct igniting source like a burning torch or a match or a piece of molten metal.

Q. What does it require to ignite it, if any 30  
thing will ignite it? A. It is almost impossible to ignite it in the liquid form. It has to be vapourised first.

Q. How does oil come to be ignited if it burns under such conditions? A. Normally in ships of course it has to be atomised. That is to say, it has to be partly heated up and split up into very fine droplets and admixed to it a sufficient amount of air and ignited by a source at high 40  
temperature, and the same conditions would apply for any ignition or combustion to take place. In other words, if we have to examine how it will ignite on the surface of water we have got to see under what circumstances such conditions can be produced, that is for the oil to be vapourised, mixed with sufficient quantity of air and then ignited by a high temperature source.

Q. Are there any agents that will ignite oil in those circumstances on the water? A. Yes, if you have material, that can be made a combustible material, lighter than water, hence it will float on the water, and if you could ignite that material so that when it is ignited it would act as a floating or stationary wick then you have conditions of the igniting source, the source of heat to vapourise the oil and hence propogate the combustion.

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Q. I think you said it is not the oil but it is the vapour which ignites? A. It is the oil vapour, yes.

Q. You mentioned a floating or stationary wick. What is the step by step procedure if you have a wick where there is oil on water? A. A typical example of a wick is an oil lamp.

MR. MEARES: You have it alight I take it.

MR. ASH: Q. Yes, I have something alight on the water which is going to remain alight for a short time at all events. If that in fact leads to a fire what are the steps by which it developes? A. I have carried out a number of experiments to see how that could be achieved and if you have floating combustible material the first thing it does as it hits the water it begins to suck up the surrounding oil by capilliary action. It gets wetted and one could term it preferential wetting by oil rather than by the water and it begins to burn, if it is ignited, and as a wick, gradually drawing more oil towards it and if there is any movement of the water that drawing up of the oil towards the wick will be accelerated.

Q. Would you go on? It is absorbing oil? A. It is absorbing oil and it is burning and it will continue to burn like that until all the surrounding oil is consumed. It is quite safe, it is something like an oil lamp, so it will need something else to spread fire to the surface. That could be provided by movement of the surface, wave motion or wind motion and a wind effect will be to blow the flame over the surrounding surface of oil and vapourise it and thus concentrate the heavier vapours, they are heavier than air so they cling to the surface, on the surface of the oil until sufficient concentration of vapour and air is achieved to pass the safe limit of inflammability and then you get a sudden spread of the flame.

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Q. When you talk of wind, do you mean heavy or light or fanning? A. You need a very light wind, very light, just to deflect the flame a little bit over the surface of the oil which is being drawn up with this wick effect.

Q. As light as you might get with an ordinary candle in a room where you get the slightest movement, that type of thing? - (Objected to: question withdrawn.)

Q. Could you give us some idea of what you have in mind with this wind? A. Well I carried out certain experiments in which I had various sizes of cotton waste dropped on a small tank containing water with oil - 10

Q. I will come to that in a minute. We are assuming cotton waste or something is on the water and the flame is going? A. That is the point I was trying to explain. When that begins to turn it just burns as a wick but then to provide the wind effect I blew the flame slightly from one end and it was very easy for that flame to be deflected over the surface with a very slight wind motion and began to vapourise the oil around it and thus propogate the flame. It was a most spectacular demonstration. 20

Q. Could you give us an idea of the rate of volume of the wind about which you are talking? A. It is very slight. I achieved it just by blowing on the side of the flame lightly, just expiring the breath. 30

Q. An ordinary expiring of the breath? A. And a small flame, under laboratory conditions that is.

Q. You say you made some tests in respect of cotton waste? A. Yes.

Q. Did you drop cotton waste on oil covered water? A. Yes, some of the tests were done by dropping cotton waste on top of oil covered water.

Q. I think you have with you in your pocket a piece of cotton waste? A. That is the type of material I used, yes. This is normal cotton waste material I took from our workshop. This is what our welders and electrical welders use to dry their hands. 40

MR. ASH: Q. What would be the weight of that body of cotton waste you have in your hand?

A. This is a handful which I weighed to be 20 grams, which is approximately  $4/5$ ths of an ounce. That is the sort of quantity one would grab to wipe any oil.

10 Q. First of all, did you drop that, in your experiments, both dry and oily, at separate times, onto water on which there was a film of oil? A. Yes, I did.

Q. First of all, as regards the sinking or not of it, in any experiment did it sink below the water? A. No. To make it sink below the water you have to make it very wet with water and squash it into a very tight ball, to make it really very dense.

Q. Did you drop something exactly of that order dry on to water covered with oil, from various heights? A. Yes.

20 Q. Ten, 20, 30 and 30 plus feet? A. Yes.

Q. What film, thickness of film of oil, did you take for the purpose of dropping it?

A. I varied the film. In no circumstances did I increase it beyond one-sixteenth.

30 Q. Not over a sixteenth in any experiment. As a result of that dropping did the dry cotton waste ever sink below or absorb the water? What did it do in all experiments? A. It was not possible to submerge it below the water level, from whatever height I dropped it, and it was always easy to ignite it.

Q. When it took up its position on this oil-covered water, with one-sixteenth or less, did it absorb the oil and not the water? A. Yes. That is what I call preferential wetting by the oil.

Q. Did you conduct some experiments with cotton waste that was somewhat impregnated with oil?

A. Yes.

40 Q. To cut the matter short, did the same result flow as regards not getting wet, and preferential wetting of the oil? A. Yes. It makes no difference.

Q. In your opinion, that cotton waste, of that size and weight, whether slightly impregnated with oil or not, would it make any difference, for the purpose of what you have been saying, how high you dropped it? A. No. It would make a little

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difference if you had more oil in it. You reduce the bulk density.

Q. If you dropped that from the Empire State building onto this film of oil, do you think that height makes any difference to what your experiments revealed? A. I do not think the effect would be any different from dropping it from 6 feet or 8 feet.

Q. Would that apply provided it is spread out in that loose fashion, whether it is dry or impregnated to some extent? A. Yes. 10

Q. You carried out the test, you say, with a one-sixteenth film or less? A. Yes.

Q. What would the effect be of an increase of the oil film above one-sixteenth of an inch? Would that lessen or increase the chances of it sinking? A. It would lessen the chances of it sinking. It would increase the chances of it absorbing more oil.

Q. Did you go further and take a bit of cotton waste and hold it down in a container of water with a film of one-sixteenth or less on top of it? A. Yes. I tied a piece of wire around a bundle like that and submerged it below the surface of the oil and kept it in that position for two or three minutes and let it rise again, released the wire and attempted to ignite it. It was just as easy to ignite. 20

Q. You conducted a number of tests, holding it down for various lengths of time, did you? A. Yes. 30

Q. In each case when it came up and you say it absorbed the oil, was that quick or an amount of time? A. There was always a measurable time interval. I did not exactly measure the time. I attempted to ignite it fairly soon, on its appearance on the surface, and had no trouble.

Q. Would the preferential wetting of material apply to hessian or a piece of shirt or any material you would wear - underpants, singlet or that type of thing? A. I should imagine it would apply to most combustible material lighter than water, which could float - newspaper, cotton or hessian. 40

Q. It would be floating on the water and the preferential absorption of the oil? A. Yes.

Q. And even if wet beforehand, would, like the cotton waste, still absorb the oil if you held it down? A. I am not quite sure about that.

Q. It all depends how much it is squeezed up? A. Yes.

Q. An ordinary piece of clothing or hessian, at all events, that remained at water level, it would apply to? A. Yes. I am not very clear about the actual question, but it will apply to a lesser degree if the material is wetted by water before it is dropped in contact.

Q. Getting on to other sorts of material, take bits of wood such as you would get off a box, packing cases and boxwood and that type of thing? A. Yes.

Q. If that were floating in this oily water, would that become impregnated with oil? A. Yes. That would be wetted by the oil.

Q. As regards the ignition of these things, if molten metal or slag or a rivet or something of that nature fell on these floating pieces of debris that we have been speaking about, would it be capable of igniting it; if not instantly, smouldering and leading to ignition of it. I am generalising first. A. Some would ignite more easily, others with greater difficulty. Provided they are all combustible and conditions can be produced to sustain the high temperature long enough for the material to be ignited, yes, they would.

Q. Let us take that step by step. Are all the things you have been speaking about; the cotton waste, the hessian, the linen type of material and the boxwood, packing case type of material, impregnated by the oil by floating on it, what you term combustible? A. Yes, they are combustible.

Q. Then you said provided conditions can be obtained. First of all, as regards the initial ignition, would a piece of molten metal falling on any of those things be capable of starting it burning? (Objected to; argued.)

Q. Take the situation just set out by His Honour. Would a piece of molten metal alighting on those things be capable of starting combustion? A. This material is very easy to ignite -

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Q. You are referring to the cotton waste in your hand? A. Yes. If you drop a piece of molten metal on that, even if it does not immediately set it on fire it will start smouldering and it will very easily begin to burn, particularly if the oil begins to be evaporated, if it is in contact with oil.

Q. You pointed out that the oil itself never burns, never ignites; it is the vapour which ignites? A. That applies to all liquid fuels.

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Q. What is the process, step by step, when that bit of molten metal falls on a bit of cotton waste impregnated such as that, and floating? A. If the molten metal is sufficiently hot, at a sufficiently high temperature, it starts the initial smouldering of a combustible material like this piece of cotton waste. With a little wind, which might provide a bit of fanning action, it will gradually smoulder away and probably burst into a small flame. Oil will be soaked up and you have a perfect oil wick effect. That would gradually tend to increase and if you have continuous movement of air the oil would be sucked up all the time, provided you have a source of oil coming in, and if you have a lot of oil on the surface of water, it is remarkable to see how it gravitated towards the burning wick.

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Q. In that regard, would a thickness of oil greater than one-sixteenth of an inch be more likely to assist that wick than one-sixteenth of an inch and so on, as the thickness increases? A. Yes, up to the ultimate, where you have no water and just have the wick floating in oil.

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Q. That is the theoretical progress of that position? A. Yes.

Q. Does the thickness of the oil on the water have any effect in another way, as regards insulating it from the water below? A. Yes. I think the spreading of the fire would be governed, to some extent, by the thickness of the surrounding oil. Oil itself is a very bad conductor of heat, and above a certain thickness of oil it is possible to keep the top layers of the oil at a fairly high temperature even though there is the continuous cooling effect of the water below it. If you get a flame which is gradually getting larger as the wick expands and burns, deflected

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by wind, and the flame over the surface of the incoming oil, you could get vapours coming off. The oil is heated by the flame and begins to vapourise, and you get a concentration of those vapours in air, which form a combustible mixture, and you get the flame from the wick being carried some considerable distance.

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Q. Take an ordinary flame, that you would get if you lit that piece of cotton waste with a match. We were talking of a flash point of 170, of oil. What would be the flash point of that? A. The flash point refers to volatile combustible liquid fuels.

Q. What would be the temperature of a flame there, of a match flame first? Is it 170 or more? A. It is of the order of 1,000 or more.

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Q. If you hit that cotton waste in front of you, while the flame was there would that be of that order, 1,000 or more? A. Certain classes of flame probably would, yes.

Q. Just show us how quickly that material lights with a match. A. This material burns quite quickly.

Q. First of all, is there any oil content in that at all, that you know of? A. No. This is part of the pieces which I was dropping in the experiments. It may have a few grease spots, where it may have been touched by greasy hands.

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Q. Would you light that? A. Could I have a glass? (Produced).

(At this stage the witness lit the cotton waste and fanned it by blowing. The waste was lit three times in all.)

WITNESS: If you had oil around it, of course that would burn much more quickly, because it would be soaking up oil all the time. If you cut out the air supply, it goes out. (Witness demonstrated by covering waste with a tumbler).

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MR. ASH: Q. How would molten metal compare, as an ignition agent of oily cotton waste, as against a match? Would the molten metal start it smouldering first, or what? A. Yes. The molten metal has a greater heat capacity, and therefore it would provide probably more heat than a small match, but I should imagine the initial effect

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would be to start it in a very slow way, just smouldering, vapourising a bit of oil and catching a small flame.

Q. You have told me about the cotton waste. Take the impregnated hessian or a piece of material floating on the water. A. Yes.

Q. Do the same remarks apply, broadly, to those two items? A. To a lesser or greater extent, yes.

Q. What about boxwood or packing case wood as a target of a bit of molten metal, assuming it is impregnated with oil? A. I have not conducted experiments of that nature, but I have tried to ignite a similar type of wood by blowing the burning cotton waste towards the piece of floating wood from a packing case, and I had no difficulty in setting that on fire with a small piece of cotton waste burning like that. (To Mr. Meares): I have conducted experiments with hessian and wood and paper and that sort of thing. I have not used molten metal as the igniting source.

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Q. Is the temperature of molten metal as high as a match? A. It would be of the same order.

Q. For ignition purposes? A. Yes.

Q. Depending, of course, on its size and other things, it retains its heat for a little while, although it is attenuating? A. It contains more heat in some ways, because of the heavier weight.

Q. The molten metal contains more heat than the match? A. But it does not develop any heat, so you have to balance one against the other. If it is an incandescent piece of metal, the temperature of that would be of the order of 900 to 1,000 degrees centigrade, which is of the order of 1,800 Fahrenheit, which is a factor of 8, 9 to 10 times greater than the temperature required to -

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Q. What is the ignition point of oil of 170 flash point? How much higher is it, roughly? A. I would not like to say.

Q. It would not be 1,000 degrees? A. Some vapours ignite and flash at 170. That is its flash point.

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HIS HONOUR: You were asking this earlier as "fire point".

WITNESS: The fire point would be the temperature for sustained burning under confined experimental conditions, and that would tend to be of the order of say 20 degrees higher than the flash point.

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MR. ASH: Q. While we are dealing with the matter of flash point, you made a particular study of commercial fuel and furnace oils, from time to time? A. Yes.

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10 Q. For the purpose of the matter we are discussing, that is the burning of this oil, once there is a wick effect, is the flash point of much significance? A. I used a number of different types of fuel oils, covering practically the whole of the range of fuel oils available commercially in Australia at the moment, starting with diesel oil which is not, strictly speaking, classified as furnace or fuel oil, and going on to flash points of the order of 160, 170, up to 220 flash point and, to all intents and purposes, for the conditions at which the tests were carried out, the flash point did not have any significant effect on the ease of ignition and so on.

20 Q. I suppose the reason would be that the igniting agent was so much higher in temperature than the flash point that it did not matter? A. Yes.

30 Q. You mentioned the order of 1,000 degrees Fahrenheit, a match. Assuming a piece of metal falling distances of the order of 12 to 15 feet, through normal air space, uninterrupted, would that, falling of its own weight, lose much of its temperature or ignition power? A. It would lose some. But if it is red-hot when it reaches the surface below, it would still be at a considerable temperature.

40 Q. Would you think that a molten piece of metal, falling 12 to 15 feet, or a distance of that order, would get below what you call being red-hot by the time it got to the bottom of that distance? A.No. I have measured distances in our workshop, and under certain conditions you could send out sparks that distance and still have them red-hot bright sparks.

Q. Would that be particularly so if they projected from a running start instead of a standing start? A. It all depends on surrounding temperature.

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HIS HONOUR: What do you mean by "a running start"?  
You mean if some momentum is imported to them, in  
addition to the gravity pull?

MR. ASH: Yes.

Q. If they were thrown out instead of being  
dropped from a stationary point? A. Yes. They  
would tend to remain hotter if bigger. The larger  
the size the less they will spread out and tend to  
fall vertically, and the more they will retain the  
heat.

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Q. I want you to tell us something about vapour  
from furnace oil. In what conditions does that  
become explosive? A. If it is admixed with an  
oxygen-containing gas, like air, in the correct  
proportions to be brought within its limits of  
inflammability, it will propagate flame.

Q. Is that the proper way to say it becomes  
explosive? A. Yes.

Q. Colloquially it means "explode"? A. Yes.

Q. Will that vary according to the area in which  
the oil vapour is, that is to say, the open sea at  
one extremity or a closed tin on the other? Has  
confining anything to do with it? A. It will vary  
to some extent with its environment, yes.

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Q. If you take oil accumulated at low levels, in  
a confined space, does that make any difference to  
its expossibility or propagation of flame? A. It  
makes that difference, that it is easier to achieve  
the rate within which the mixture becomes inflammable.

Q. Does that make it more readily explosive or  
more readily propagated by flame? A. Yes.

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HIS HONOUR: Q. Let us suppose that you have your  
piece of cotton waste or other substance floating  
on water covered with a film of oil? A. Yes.

Q. And that, by some means, you apply enough heat  
to the piece of cotton waste or other material to  
start some combustion in it; whether smouldering  
and then a flame or not does not matter. I suppose  
you could do that, that is, you could start a flame  
in your cotton waste as easily, if it were in an  
open space of water, as if in a confined space.  
Would that be right so far? A. Yes.

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Q. Having started that bit of fire in your cotton waste and if you are then seeking to work out whether adjacent oil is likely to vapourise and itself begin to burn, is it at that point that it makes a difference as to whether you are out in open sea or in a confined space? A. Yes.

Q. Why does that factor make a difference?  
 A. Because once you start the flame burning, by itself it will continue to burn and it will not evaporate any of the surrounding oil unless that flame is deflected or the source of heat generated by the wick is such that a lot of the surrounding oil begins to vapourise. That would still not create any danger if that vapour is taken away as soon as it is produced, because it will take away before the proper mixture of air and combustible vapour is reached which will carry the explosion or the flame propagation.

Q. Could it be put this way, that it will be dissipated before it reaches the build-up required for the oil to burn? A. Yes, or you could put it the other way. The confined space will assist the reaching of the limits of flame propagation more readily than an open space.

MR. ASH: Is that thing (referring to cotton waste) burning? I can smell something.

WITNESS: It is smouldering away.

MR. ASH: Q. Arising out of what His Honour asked you then, does it make any difference whether the oil on which our hypothetical cotton waste is floating, is thin, thick, or thicker, for the purpose of that operation which His Honour was asking you about? A. The thicker the oil the easier it would be to vapourise it. There will be a limit, of course, where however more thickly you lay the oil, it will make no difference. But if you have a layer of that order, of 1/16th or more, the flame will tend to vapourise that quite readily, once the heat from the flame is brought over the oily surface.

Q. If you got up to one-eighth of an inch, would it be a noticeable difference in the sense that it would vaporise considerably more quickly or just slightly more quickly? A. It would tend to vaporise more quickly. How much more quickly I would not be prepared to say.

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Q. And so on. Getting back under this wharf, apart from the oil actually on the water, I think I told you that there was oil on the piles, described by every witness as thick in some way?  
A. Yes.

Q. Assume that the bit of molten metal landed on that instead of on this floating object that we have been postulating? A. Yes.

Q. What would be the effect then? A. It would be very difficult to say. It would probably bounce off and go into the water in some circumstances. In other circumstances, if it gets lodged, it might provide sufficient heat for some of the oil to vaporise.

10

Q. If you had the wood of piles behind you, assuming the wood was not wet, if the molten metal were caught up by the oil itself or by some irregularity in the wooden pile which stopped the metal, would that situation provide wick potentialities? A. The pile itself would be what you may term a stationary wick, but it would be not one which could ignite with as great an ease as a material like cotton waste.

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Q. Would it make any difference if the molten metal fell on a pile say containing one-eighth of an inch of oil or one-quarter of an inch? Would the vapour of the oil burn when the molten metal was sort of embedded in the thickness of the oil against the pile? A. That would probably happen if you dropped molten metal into oil. It will sink in the oil, because it is so much heavier. It will give its heat to the oil but the amount probably will not be enough to start the vapours off burning, but the next piece which comes may.

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HIS HONOUR: Q. But if, instead of dropping onto the oil and through the oil and then on through the water, it happened to land on a step, let us say - A. Yes.

Q. One of the steps of a stairway which, at this time, was above the water level but which had a covering of oil on it, and the metal object stays there, does not bounce off, what then, assuming oil of a thickness of say one-sixteenth of an inch? Would it set that alight? A. It would be very difficult.

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Q. It would be very difficult to set it alight in that way? A. Yes.

MR. ASH: Q. Assume the oil was about one-eighth of an inch -

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HIS HONOUR: Q. I suppose if the piece of metal remained there and it continued for a long enough time to be a high enough temperature to start the wood itself burning - do you follow? A. Yes.

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Examination  
continued

Q. Then could you get a process of ignition of the oil similar to what you have described?

A. Yes. Then you have the wood acting as the igniting source and as the stationary wick.

10

MR. ASH: Q. Is the oil vapour from this furnace oil heavier or lighter than air? A. It is normally considerably heavier.

Q. Take the situation of this ship of 235 feet length, lying against that wharf of which I have shown you the photographs? A. Yes.

Q. If not against, a few feet out but no more.

If oil lay there on that water, cuboid area, although not enclosed, for two or three days, would there be any vaporisation there? A. Yes.

20

There would be a tendency for some of the very light constituents possibly to vaporise. It will depend to a large extent on the volatility and the range of the constituents of the fuel oil in question.

Q. Would it be significant in relation to the disposition of the "Corrimal" that the wharf and the wood piles under it were in that situation?

A. From the pictures we saw, if there is a source of ignition and if vapours accumulate under the wharf, in a confined space, the disposition of the timbers and the piles is such that it would facilitate fairly quick propagation of flame and fire. They are very nicely arranged, with spaces of combustible material and air, the planks and the piles with gaps in between. They are quite nicely arranged for proper circulation of air and retention of heat from one deflected off another, creating conditions which could develop very quickly into a fairly large fire.

30

40

Q. If you had underneath there, around the centre, some floating wick or some wick in the form of a flame, would the condition under that wharf, at the end of two and a half days create, as you say, a nice position for the rapid expansion of that fire? A. Yes, certainly much greater than if it had been in the open sea.



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Examination  
continued

Q. Would it be consistent with such a situation that the circular flame could burn for a few minutes and then, because of this nice situation, to use your phrase, it could suddenly spread the length of that wharf? A. That is just the sort of thing you would expect to happen.

(Further hearing adjourned until 10.30 a.m.  
on Friday, 8th February 1963.)

IN COMMERCIAL CAUSES Nos.3000 & 3001 of 1955.

CORAM: WALSH, J.

10

THE MILLER STEAMSHIP CO. PTY. LIMITED

v.

VACUUM OIL CO. PTY. LIMITED,  
CALTEX OIL (AUST.) PTY. LIMITED, and  
OVERSEAS TANKSHIP ( U.K.) LIMITED.

...

R. W. MILLER & CO. PTY. LIMITED v. SAME

THIRD DAY: FRIDAY, 8th FEBRUARY, 1963.

8th February  
1963

NICHOLAS YORDAN KIROV, Examination continued

MR. ASH: Q. I will read you the last two questions and answers of yesterday:

20

"Q. If you had underneath there, around about that centre, some floating wick or some wick in the form of a flame, would the condition under the wharf, at the end of two and a half days create, as you say, a nice position for the rapid expansion of that fire? A. Yes, certainly much greater than if it had been in the open sea.

Q. Would it be consistent with such a situation that the circular flame could burn for a few minutes and then, because of this nice situation, to use your phrase, it could suddenly spread the length of that wharf? A. That is just the sort of thing you would expect to happen."

30

I did not get from you - provided the floating wick or fire was established as a fact, would one of about six inches in diameter be sufficient for that opinion, provided it was established? A. Yes.

Q. A Floating flame on the water say 6 inches in diameter? A. Yes. The size of the wick is not terribly important. It acts as a wick.

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Q. As long as it is going as a flame? A. Yes.

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Q. I wanted to ask you a little more about this oil under the water. Take the situation generally of this boat. It was 230 ft. long, was moored if not next to the wharf fairly close to it, an average of 12 to 13 ft. high, and the piles at comparatively low tide with a slick of oil on them. First of all, with a large area of furnace oil in that water, in that semi-confined area between the back and the ship's side, what is the position about the accumulation of vapours?

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Examination  
continued

A. The way you described the space it appears to be confined or restricted, and it would tend to contain the vapours rather than dissipate them.

Q. Would there be any retention or lack of dissipation of any warmth or heat because of that situation? A. I think the same thing can be said for the heat as for the vapours. The close proximity of adjacent members would tend to retain the heat or bounce off the one and back to the other and not be completely dissipated; in other words, assist in the spread of fire.

Q. Would the fact of oil being banked up immediately around the piles and shore line or wall line according to the tide accentuate this effect you are speaking of or not? A. Yes.

Q. If there was a draught of air through that space, through the length of it, assuming a wick was on the water somewhere in this area, around about the middle of it, would that have any aggravating effect? A. I think I explained yesterday you need a fanning effect, some action to spread the flame onto the wick and to vaporise the oils around it. Any fanning effect will tend to deflect the flames along the surface of the oil and increase the vaporisation.

Q. And slight movement of the water would have that effect on the flames? A. Yes, it will, and I also mentioned that the oil itself will have a certain amount of damping effect on the water.

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Examination  
continued

Q. (Approaches witness): I point to the Sheerlegs Wharf running very closely east and west, the ferry wharf there, although the ferry wharf is not a solid mass, as appears on it. At this particular time, assuming there was a wind before the fire started for a couple of hours, a north-east wind operating on this bay at a speed of 9, 10, 11 miles an hour, and a boat is moored along the Sheerlegs Wharf, if portion of that breeze got caught up with the corner of the point and a bit of it deflected by the bow of the ship, how would you describe that draught proceeding under the wharf? Would that be suitable for the purpose you have described? A. That would give the same effect.

10

Q. And if there had been a wind coming in from the west and south-west, and later from the north-west, from the other end of the wharf, in that nook up there for some earlier hours, could that have the effect of blowing on the surface, the oil, up towards the side of the wharf?

20

MR. MEARES: I do not know whether, with respect, this witness purports to be an authority - it is a special field, I understand - on the surface effects of oil. He speaks as an expert on combustible properties, but he is in a special field. If he has made tests on movement of oil I could not object, of course.

MR. ASH: Q. Have you directed your mind, during your career, to the effect of a breeze of any sort blowing upon oil already upon water? A. Not in that way, no.

30

Q. I mentioned the factors of the oil on the piles, the oil banking up and the draught, and the semi-confined area. Are those conditions, if you put this floating wick which is already established flame, in the centre of those conditions at that moment, favourable to produce a conflagration? (Objected to.)

Q. There was a floating wick, a floating flame on the water, let us say 6 inches in diameter, burning - an established flame; that it was underneath, between the ship and the back of the retaining wall of the wharf, it was fairly close but underneath the edge of the wharf, floating in the water which had the oil on it. Do you follow? A. Yes, but I do not understand what it meant by "floating flame on the water".

40

Q. Something alight on the water, that gives the appearance of a flame covering on the water, a circular flame, or roughly a circle of 6 inches diameter? A. Yes.

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Q. Do you follow? A. Yes.

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Q. What is in the centre is, for the purposes of the question, unknown, but there is a circle of flame about 6 inches in diameter on the water? A. If you have a flame you would have a heat source. If you have a heat source it will vaporise oil.

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Examination  
continued

10

Q. But if you had such a flame in such a position, with these factors that I went over, would that be favourable or unfavourable to a quick conflagration, within a short time? A. Must I answer that Yes or No, or can I explain? Parts of the question can be answered yes, but a general yes to the whole question cannot be given. A general yes to the whole question is difficult to give but parts of the question can be answered yes.

20

Q. What parts of the question present difficulty? A. The time limit, the adjectives used for the time of start of the conflagration.

HIS HONOUR: Q. You mean you were asked would it promote a speedy conflagration? A. Yes, without qualification. I cannot say yes without a qualification.

30

MR. ASH: Q. Could it promote a conflagration at all in those circumstances? A. Yes.

Q. I will go over the conditions again. I will put it in this form. If you have a wharf and there is a ship tied up to it and it is 230 feet long and it is just out from the wharf or very close to it, and you go 40 feet under the wharf to the back, and the wharf has piers and it is fairly low tide and there is oil on the bottom of the piers and there is oil on the water, banked up a little around the fixed objects, and there is a draught coming along underneath sufficient to blow the flame down towards the water, the expanse of the flame. Are those conditions favourable to the expansion of the flame and an ultimate conflagration? A. Yes.

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Examination  
continued

Q. I will get on to another matter. I did not ask you yesterday as regards certain forms of floating debris - the cotton waste, the hessian and the material, to which I will add a rolled up ball of paper, such as newspaper. Could a lighted cigarette falling on that range of debris, floating on oil on the water, cause those items of debris to ignite? A. With paper and cotton waste it could possibly have.

Q. It would certainly apply to molten metal coming from oxy-acetylene torches and electric welding? A. Yes. 10

Q. Could they also set alight, by smouldering or otherwise, floating wooden debris or a pile, if they happen to lodge in a pile so that they did not bounce off? A. Yes.

Q. Assuming the "Corrimal" had metal sides, the hull of the ship - do you follow? A. Yes.

Q. And assuming she was lying east to west and that it was just past mid-day, 2 o'clock on a fine day, with the sun coming in from a northerly direction, if there were any sun heat striking on the plates of the metal of the boat, from the height of the sun, I take it the heat could be reflected downwards back from it? A. Yes. 20

Q. If, in fact, heat were so reflected and portion were reflected back into the semi-confined area I have been speaking about, would that have any effect on the situation of volatility? A. Any source of heat would tend to warm up the oil and vaporise, under favourable conditions, some of the lighter volatile constituents of the oil. 30

Q. I think you were in Court yesterday when a Mr. Parkin was giving his evidence of an incident during the war, when a welder was welding on the outside of a tanker with a crack in it? A. Yes.

Q. The tanker being full of oil above the level where he was welding. Do you remember that? A. Yes.

Q. And that some of the oil dripped out of a portion of the crack on the outside, and caught fire. You recall that? A. Yes. 40

Q. Is that incident consistent with your experience? (Objected to.)

Q. Is that consistent with your knowledge of the burning of fuel? (Objected to: allowed).

10 A. That is a good example of the principles that we have been discussing. It illustrates quite well the fact that you cannot ignite oil in bulk, if you have it in quantity. You have to have some supporter of combustion, air or oxygen in the air, and that is ignited as you vaporise it and mix it with the air. Dribbling oil on the sides would come out, would be vaporised by the heat of the metal and would ignite. I would not consider that a dangerous position unless the level of the oil fell below the crack so that the flames would go inwards and create an inflammable space above the oil. I think Mr. Parkin very correctly described the processes necessary.

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Examination  
continued

CROSS-EXAMINED:

Cross-  
examination

20 MR. MEARES: Q. Today, in your evidence, you were asked a question about heat from deflection on a ship. Do you suggest that this, in any way, was a contributing cause to the fire which took place on 1st November? A. I did not suggest anything like that, no.

Q. Do you suggest that? A. The clear-cut answer is no. I will stop there.

Q. Do you put yourself forward - I do not put that offensively - as expert on the movement of surface waters and objects on surface waters?

A. No.

30 Q. Or the effect of winds in and upon surface waters that may be, to an extent, protected from the wind? A. I have no recollection of making any statements to imply -

Q. I am not asking you that. I want to ascertain the extent of your expert knowledge.

A. I see. No.

Q. Have you ever been out to the Sheerlegs Wharf? A. Not for the purpose of examining the wharf.

40 Q. Have you ever made a study of the conditions underneath the wharf? A. No, except what I have seen in the photographs.

Q. But you have never visually looked underneath that wharf? A. No.

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Cross-  
examination  
continued

Q. Have you ever made any experiments in your life on the combustibility - if that is the right word - of oil in open waters? A. I have made experiments on the combustibility of oil and of oil upon water; open sea waters, no.

Q. You mentioned, I think, that the vapours under the wharf would be favourable to the creation of a fire by the combustion of oil? A. I would like to say there that -

Q. Did you tell the Court that, by virtue of the construction of this Sheerlegs Wharf, and its relation to the shore, it would probably contain more vapours than in the open? (Objected to; to be rephrased.) 10

Q. Do you think, on this day in question, from what you have been told, that there was a tendency underneath the wharf for there to be more vapour than outside the wharf? A. If the facts given me in the question were correct, the answer is yes.

Q. I suppose the vapour would tend to collect there, would it not, because it was still air? A. It would tend to collect partly because vapours are heavier than water, and, therefore, they will tend to stick to the surface. 20

MR. ASH: Q. Heavier than air? A. Heavier than air, and if you could provide conditions where you could trap these heavier vapours, they will tend to collect.

MR. MEARES: Q. So that the ideal situation to trap them would be still air just where they are rising, would it not? A. The ideal condition - 30

Q. Please do not think I want to pin you down, but if you could answer yes or no, please do so. Will you agree that the ideal condition to stop these vapours from rising from the water, would be stillness of air above them? A. Scientifically I would not agree with a question starting, "the ideal condition being". It would still be one favourable condition for the accumulation of vapour. 40

Q. What would be another? A. A combination of still air with a slight breeze blowing it into the still air trap.

Q. What still air trap? A. You have to have still air when a breeze is blowing -

Q. What still air trap was there under this wharf? A. When you ask a general question, I am not thinking of a wharf.

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Q. Are you suggesting, from what you have heard, that there was a still air trap under this wharf? A. I am in some difficulty in answering. If it is a general question -

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10 Q. From what you have heard of the events of this fire, given to you by Mr. Ash, at the time of the fire do you suggest there was a still air trap under this wharf? A. I have not suggested.

Cross-  
examination  
continued

Q. Well, do you? A. No, not about the wharf at all.

20 Q. And of course, what was necessary for this fire to take place was a sufficient current of air over the surface of the oil to bend the flame down onto the oil, was there not? A. I am sorry. I am still puzzled by the previous question. I answered it no, but the answer -

Q. What was necessary to create this fire, assuming it was by a wick, on the day in question, was a sufficient current of air along the surface of this oil, to produce the effect of the flame going and bending down onto the water or oil. That was necessary, was it not? A. Yes.

Q. And you postulated, of course, that in still air, this thing could never have burnt the oil, this wick, did you not? A. No.

30 Q. That is right. Did not you postulate that if there was a wick burning in still air, the oil could not have caught alight? Did not you put that early yesterday? A. It needs a fanning action, yes.

Q. And without a fanning action you would have no fire? A. From a small floating wick, yes.

40 Q. Or from any other source that you can think of? A. Well, if I am given the job to set fire to the water there, I would be able to do it without a fanning action.

Q. How would you do it? A. I will use a fuel that ignites more readily, which will produce the vapours -

Q. With this fuel oil, how would you light it otherwise? A. I would put several wicks in very close assembly.



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Cross-  
examination  
continued

Q. Other than that, how would you light it?  
A. There are many ways.

Q. Well, tell me. I am asking you. A. I could put some kerosene or diesel oil on it.

Q. Without putting an additive like an inflammable liquid on it? A. I am being asked a general question.

Q. I am asking you a question. If you do not understand it I will repeat it. How else could you light it up? You have some difficulty in thinking? A. Oil on the water?

10

Q. Yes.

HIS HONOUR: Furnace oil.

Q. MR. MEARES: Have you not considered the problem?  
A. Yes. The easiest way is to have several wicks.

HIS HONOUR: Q. You are being asked can you give any instances of other methods. A. Yes. I could put a heater in the water, in the oil, to vaporise it, any heater. I could concentrate the source of heat from glass or mirrors, to evaporate a certain amount of that oil. There are 101 possible ways of providing a heat source to vaporise some of the oil.

20

MR. MEARES: Q. Can you think of any other ways?

HIS HONOUR: He would not be able to think of other ways than that, of providing a heat source.

MR. MEARES: Q. From what you have been told, the conditions that existed that day and the positioning of the oil were ideal conditions for this disaster? A. I have always objected to the word "ideal".

30

Q. Would you answer me? You used the word yourself ten minutes ago. A. I cannot quite follow the question. Would you repeat the question?

Q. I put to you the conditions existing on this day, in regard to the position of the wharf and the wind, the situation of the wharf, were ideal for causing this conflagration - and the existence of the wind? A. I could not answer that by saying yes, no.

40

Q. As good as you can imagine, were they not?  
A. My answer would be that if the facts as presented are correct, the conditions would be favourable.

Q. Could you imagine any better conditions?  
A. Oh yes.

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Evidence

Q. Such as what?

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HIS HONOUR: Q. I suppose a much bigger and hotter source of heat would be one? A. That would be one, an explosive mixture in close proximity to the fire. I could give you a list of many.

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10 MR. MEARES: Q. Have you made any tests of the ability of cigarettes to light vapour or wood in the open air? A. Paper I have, wood I have not.

Cross-  
examination  
continued

Q. You have made no tests with wood at all?  
A. No.

Q. When did you make the tests with paper?  
A. A few days ago, when experimenting with the attempts to light oil.

20 Q. May I take it that any tests that you made since you were presented with the problem in this case, were tests that you made in still air in the laboratory? A. They were tests made in the laboratory and partly in an open space.

Q. What do you mean by that? A. Well, we went to the third and fourth floor of the building and dropped cotton waste into a container, and then ignited it in the open.

Q. That was right up against the building?  
A. Yes.

Q. How many tests did you do of that sort?  
A. Quite a number.

30 Q. Did you make any tests in regard to the ability of hessian or wood to light oil? A. Yes.

Q. You have only spoken of cotton waste tests?  
A. That is because it was a handy example. I did experiments in hessian. I did some wood only a few days ago, a number of other materials about three years ago.

Q. You say you are a Bachelor of Science?  
A. Yes.

HIS HONOUR: Q. Is it not Master of Science?  
A. Both.

40 MR. MEARES: Q. For your Bachelor of Science you did not specialise in the properties of fuel oil, or any specialty in fuel problems, did you? A. You very rarely specialise. I did a basic science and engineering degree.

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Cross-  
examination  
continued

Q. For your Master of Science Degree did you write a thesis? A. Yes.

Q. What was the thesis? A. The thesis was a rather general one on fuel problems under wartime conditions, in which part of the problems were concerned with combustion of solid fuels, part fluid, liquid fuels and tar.

Q. Was part of your paper dealing with the combustion of solid fuels? A. No.

Q. You were dealing, of course, with the combustion of solid fuels from the point of view of producing energy? A. Not in my thesis. 10

Q. Well, what were you dealing with? A. Basically with tar, gas tar, trying to control its properties, trying to control its viscosity.

Q. Your first position after that was as a fuel efficiency engineer, in 1943? A. Yes.

Q. That would have meant you would have been one of many junior efficiency engineers employed by the Government? A. No. I was not, in fact, in that sense, employed by the Government. I worked with my senior lecturer of the fuel department, on a voluntary basis, for the Ministry of Fuel and Power. 20

Q. For the purpose of ascertaining what sort of fuels, fuel being in short supply, could be used economically? A. No, for the purposes of visiting fuel using concerns in the Yorkshire area and advising them on problems relating to fuel utilisation.

Q. That took place mainly in 1943, did it not? A. Yes. 30

Q. And then, in 1944, for a number of years, you were with the British Coal Research Association? A. Yes.

Q. What were you doing with the British Coal Research Association? A. I have answered that question before. I was mainly studying combustion problems.

Q. In relation to boilers and furnaces? A. Yes.

Q. You were not associated to any extent with combustion problems in relation to fuel oil, were you, in the British Coal Utilisation Organisation? A. Well, I was concerned with a study of combustion as a mechanism. 40

Q. But being in the British Coal Utilisation Organisation, you were concerned, I take it, primarily with coal? A. Yes, but a lot of the problems that we used to study are not research carried out actually on coal.

Q. But that was what you were concerned with, combustion properties of coal, and how best to utilise it? A. Yes, but if we want to study the smoking properties of coal, we may do a study on a liquid.

Q. Did you ever do any studies on furnace oil? A. Yes.

Q. What furnace oil? A. Fuel waste oil utilised in connection with small coal.

Q. And you were considering its ability to burn, to produce energy? A. Yes.

Q. Then in 1951 you took up an appointment with the C.S.I.R.O., as Senior Research Officer? Is that right? A. Yes.

Q. And the Division of Fuel Research with which you were concerned was the Coal Research Section? A. Yes.

Q. And again, I suppose, you were concerned primarily with problems relating to the combustion, the creation of energy from coal? A. Yes.

Q. And you continued in that Division until 1958? A. Yes.

Q. And thereafter you became a Lecturer in Fuel Technology? A. Yes, Senior Lecturer.

Q. Have you ever heard of the Panamanian fire? A. Yes.

Q. When did you hear of that? A. I heard about it three years ago but never paid much attention to it.

Q. And you are interested in problems related to fuel? A. Yes.

Q. Liquid fuel as well as solid fuel, and you read a large number of journals and books on the subject, I suppose? A. Yes.

Q. And you read and have read, for many years, very widely? A. Yes.

Q. And you heard of the Panamanian fire three years ago, approximately? A. Yes.

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Cross-  
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continued

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Cross-  
examination  
continued

Q. Had you ever heard of the Morts Dock fire up to a few months ago? A. Yes, three years ago again.

Q. Prior to three years ago you had not heard of it? A. No. It happened in 1951 and -

Q. You had not heard of the Morts Dock fire until about three years ago? A. No.

Q. When was it you came to Sydney? A. In 1952.

Q. Have you been in Sydney ever since? A. Yes. Well, no, that is not right. I have been overseas. 10

Q. But generally in Sydney ever since? A. Yes.

Q. And I suppose since 1952, until now, again you have been reading journals relating to fuel oil and its properties and combustion properties, and on all its other features? A. Well, reading and lecturing on the subject.

Q. Would you agree with this, that the flash point of an oil fuel is the minimum temperature at which a standard open flame will ignite the volatised surface vapours? A. Approximately it is correct, yes. 20

Q. Is it in any way inaccurate? The flash point of an oil fuel is the minimum temperature at which a standard open flame would ignite the volatised surface vapours. Is that correct, too wide, too narrow? A. It is not sufficient.

Q. Well, is it true? A. Well, if it is not sufficient, it is only partly true. It is true as far as it goes. 30

Q. And accurate? A. As far as it goes.

Q. And it is the lowest temperature at which an oil will generate sufficient vapours to form an inflammable mixture with air under the test conditions? A. Yes.

Q. And is that true? A. The question about truth is difficult, but that is correct so far as you technically described it, yes.

Q. And that accurately defines it? A. No. You have to make reference to the progress and the heating rates, and reference to the sample quantity supplied. 40

Q. If I put that the flash point value depends on the type and extent of the apparatus used, and the apparatus must be specified, would that addition satisfy you as being a fair definition or description of "flash point"? A. Flash point is a determination carried out in accordance with a standard specification.

Q. But would that satisfy you? A. It is still not quite full.

10 Q. I am reading out the words you yourself used to define it. You wrote a paper, did not you, in this symposium? A. Yes.

Q. And the paper you wrote was entitled "Properties of Oil Fuels and their Significance in Utilisation"? A. Yes.

20 Q. And under the heading "Flash Point" you used these words, as I read them to you: "The flash point of an oil fuel is the minimum temperature at which a standard open flame will ignite the volatised surface vapours, that is, it is the lowest temperature at which an oil will generate sufficient vapours to form an inflammable mixture with air under the test conditions. Since the flash point value depends on the type and dimensions of the apparatus used, they must be specified." Is that what you said? A. Have not I given a reference to the Institute of Petroleum standard method of carrying out tests in the same paragraph?

30 Q. No. A. May I refresh my memory?

HIS HONOUR: Yes. (Document handed to witness.)

MR. MEARES: Q. In that paragraph you mentioned determination of the flash point as being a safety point? A. Yes.

Q. And the figures? A. Yes.

Q. So that what I read to you would be an accurate definition of a flash point? A. It will be accurate but not full.

40 Q. And of course it is a flash point, is it not, determined by a method conducted under laboratory conditions? A. Yes.

Q. You would agree, would you not, that there would be a difference between the flash point of furnace oil under the proper laboratory conditions prescribed, and the flash point of furnace oil in the open air? A. Yes.

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Cross-  
examination  
continued

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Cross-  
examination  
continued

Q. And you would agree, would you not, that the flash point in the laboratory method of testing would be very much lower than the flash point in the open air? A. No. I do not think I would necessarily agree with that, no.

Q. Have you ever made any tests of that? A. No.

Q. Would you be prepared to deny that the difference between the Pensky-Martin test - which is the flash point test to which you refer, do you not? A. Yes.

10

Q. Would be roughly 20 degrees less, Fahrenheit, than a test made of the flash point in the open air? If you do not know, I do not want to press you. A. How would you do the test in the open air?

Q. Answer the question. A. I cannot answer it unless I know what I am comparing with what.

Q. A flash point test? A. In a flash point apparatus? Yes, there is a difference of that order, of 20 to 30 degrees, between an open and closed cup test.

20

Q. But could you determine the flash point of oil in the open air? In other words, if you get it in the laboratory, you can flash it at 170 degrees. Do you understand that? A. In the standard apparatus, yes.

Q. At what temperature could you flash it in the open air? Would you need more heat, less heat, or the same? A. The Pensky-Martin test is carried out with an open cup and the closed cup. If the open cup is what you refer to as open air, that would ignite at a temperature of about 20 odd degrees higher.

30

Q. You would agree also, would you not, that the fire point of inflammable liquid, in the laboratory, would be approximately 60 degrees less than the fire point of furnace oil 170 Pensky-Martin flash point in the open air? A. I think the figure is about 30 degrees. It will vary with different fuels.

40

Q. Have you made any tests with this particular fuel? A. No. We have not been given a sample of this particular fuel.

Q. So may I take it that you have simply used fuel of a flash point of 170 degrees, in your tests? A. Yes.

Q. Did you use it in conjunction with salt water? A. No.

HIS HONOUR: Q. Do you mean some oil taken from the same tank at Vacuum, from which this oil came, or oil which has been ascertained by analysis to be of exactly the same chemical constitution as the oil was as came from the Vacuum tank, or what? I do not understand what is being said? A. Yes.

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10 MR. MEARES: Q. You would agree with me, of course, that oils with an identical flash point possess very many different varying characteristics? A. I do.

Q. As to efficiency, as to viscosity?  
A. Yes. There is diesel oil, which is 170, in the same way as you have a furnace oil.

20 Q. And you could have oil of a flash point of 170 that flowed easily, and you could have oil of a flash point of 170 that it was necessary to heat before it would flow? A. Yes.

Q. So the viscosity of the oil is not dependent upon its flash point? A. No.

Q. And the experiments you conducted were with an oil of 170 degrees flash point, but whether its viscosity was comparable with the oil that was burnt on this occasion, you simply would be unable to say? A. I have not a clue what the oil on this occasion is.

30 Q. Prior to your tests, conducted in connection with this case, had you ever endeavoured to ignite fuel on open water? A. No.

Q. Had you ever considered the problem? A. In a general scientific sort of way, but not as an object of study.

Q. Had you ever heard of any example of the ignition of fuel oil on open water, prior to 1951? A. I have read on the ignitions of oil in bulk, not in open water.

40 Q. And until you were asked, had you ever read or heard of a happening in which fuel oil had been ignited on open water, prior to three years ago? A. Well, I have read, yes, certainly.

Q. Prior to three years ago? A. Yes.

Q. When? A. I have read of oil discharged on surface water and being ignited in one way or the other.



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Q. I am talking about furnace oil? A. No, I have not made a special reading of that matter.

Q. But had you ever read of it? A. I have come across it.

Q. Are you prepared to swear that, until three years ago, you had ever read of any incident of furnace oil being ignited on surface waters?

A. It depends on what you mean by "read". I have come across an article which I have put aside without necessarily studying. 10

Q. Can you refer me to that article? A. Well, I read all abstracts and technical papers and I come across a lot of articles, but a particular article -

HIS HONOUR: I think there is some degree of cross purpose here.

Q. You are not now being asked about reading theoretical observations about the possibilities of igniting furnace oil in open waters. As I understand it, you are being asked whether you had read of any particular incident in which that had, in fact, happened. Do you follow me? A. Yes. I have no clear recollection that I have, but I may. 20

MR. MEARES: Q. May I take it when you understood your researches in this matter, in connection with this case, with your experience that we have dealt with, in coal organisations, in the University and so on, that this was the first time you had ever really scientifically considered the problem? A. No, you may not take it. 30

Q. When had you? A. I do not quite understand what the problem is. The problem is of igniting furnace oil, as I understand it. If that is the problem, I have considered the ignition and combustion of furnace oil.

MR. MEARES: Q. No, it is not the problem. The problem I suggest to you is the problem of igniting furnace oil on open water? A. I had not considered it prior to three years ago.

Q. And three years ago did you consider it? A. Yes. 40

Q. In what connection? A. I think I was asked at the time by Mr. Murray in this case to express an opinion on this case, and I then considered the matter.

Q. So that prior to considering the problem in connection with this case you have never considered it before? A. Not the problem of igniting oil on water, no.

Q. And I suppose you were told by the solicitors, or somebody on their behalf, of the Panamanian Case? A. At the time -

Q. No. Were you told by the solicitors?  
A. If the name was mentioned it did not register. I did not read any report on it.

Q. Did anyone tell you about it? A. Looking back on it if someone mentioned the Panamanian it may have been Timbuktu.

Q. So that you still do not know what I mean by the Panamanian? A. I do now because in the last two or three weeks I have seen it from a perusal of an article.

Q. And where did you see that article?  
A. Mr. Murray, the solicitor, showed it to me.

Q. And are you aware that there has been any scientific consideration of the effect of oil pollution on waters done in Great Britain?  
A. Oh yes, yes - the Fire Research Board.

Q. Are you aware of any work done in 1953?  
A. Well, work is going on all the time.

Q. But are you not aware of any governmental report on this subject published in the United Kingdom in 1953? A. Well, I know of the existence of the book.

Q. Do you, and what is the book to which you refer? A. I have not made a study of it.

Q. Who considered the matter? Do you know that? A. The Fire Research Board. It is work carried out by the Fire Research Board.

Q. I want to refer you on the other hand to a report by a Committee on the question of the pollution of the sea by oil, published by the Ministry of Transport in 1953, and it was a report in Great Britain to the Ministry of Transport by a committee consisting, I think, of some 18 or 20 members. Do you mind if I show you very briefly the constitution of the committee? A. Yes.

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Q. It consists of Sir Colin Anderson and representatives - (Objected to - pressed - ).

HIS HONOUR: I think you had better let the witness have a look at it and see who composed it and compiled it and so forth.

MR. MEARES: Q. Do you see the constitution of that committee? (document shown to witness)

A. Yes.

Q. And would you agree, without necessarily knowing all the names, that it is indeed representative of various organizations - scientific bodies - concerned with the problem? A. Yes.

10

Q. Including the Government Chemist, the Ministry of Fuel - ? (Objected to - question withdrawn.)

Q. Now I want to read you out this statement at p.3, para.(e) - "Risk of fires in harbours and other enclosed waters. We have had no evidence that the risk of fire from floating oil is serious". Would you agree that in 1953 it would have been impossible to have produced any evidence - you would not have known of any evidence to the contrary? A. Well, the same evidence that can be produced now could have been produced in 1953. The statement as it stands is correct - as far as it goes it is correct.

20

Q. I suppose you would agree, as a scientific man, that it is always very difficult to dissociate one's mind, in explaining a scientific phenomenon, from the hindsight of information that you have? A. If a scientist is correctly trained he should be able to review all information sufficiently critically to make up his mind.

30

Q. But would you agree that it is difficult?

A. It is difficult to train a scientist properly?

Q. No - to be able to divorce your mind properly - ? A. To be able to examine evidence critically.

Q. Yes. A. I thought I answered that question.

Q. And, insofar as a wick is concerned, the conditions precedent for success in lighting oil I take it are as follows - the wick must be light enough to float? A. Yes.

40

Q. That it must be of such a constituent or constituents that it can be ignited - I think that that is axiomatic? A. Yes.

Q. That it must be so situated that it is not wet with water but either dry or impregnated with some substance which encourages lighting? A. Yes.

10 Q. And that even postulating all those conditions, it must be lit - ? A. I thought that your second condition implied that.

Q. And the lighting of it in the circumstances with regard to which we are dealing - the lighting of it could only be by some involuntary act which took place above it? A. When I was lighting my wicks it was a very voluntary act.

20 Q. But you were not on the water; you were in your laboratory. I am talking about this position under the wharf or between the "Corrimal" and the wharf. The only way it could have been lit would have been by something having been thrown on it? A. I cannot say "Yes" or "No" to that question, because I do not know what happened to it, but it could be lit by voluntary or involuntary action.

30 Q. But so far as sparks from slag or molten metal were concerned, the wick would have to be so positioned, of course, in relation to the slag or molten metal, that a piece of this molten metal would fall on to it? A. Yes.

Q. And then it would be necessary for sufficient wind to fan it on to the water? A. Yes.

40 Q. And of course it postulates the other condition, does it not, that the wick should not have sunk - that it should be still floating? A. Yes; the movement required is relatively small. It could be imparted by movement of water not necessarily by movement of wind above it.

Q. Would you yourself have been prepared to weld with an electric holder the ship with the oil leaking that Mr. Parkin explained. (Objected to - pressed).

Q. To save time I will put it in another way.

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HIS HONOUR: Generally speaking, you are entitled to ask it but not quite in that way.

MR. MEARES: Q. Would you consider it safe to weld on the side of that ship with the oil leaking out of it as described? A. If I had satisfied myself that the oil was not leaking out in excessive quantity, and if the oil surface was well above the leak, and if it was expedient enough to have to do it, I would have authorised it had I been in charge, yes. - provided I was not contravening any regulations. 10

Q. Would you be able to refer me to any paper appearing in any journal available in this country, published prior to November 1951, relating to the dangers of furnace oil - the dangers from fire of furnace oil on open waters? A. Written by anybody?

Q. Yes. A. Not offhand, but I am sure that I could possibly look at the literature and advise you accordingly.

Q. But you found nothing in your researches or work done on this problem up-to-date? A. I have not looked. 20

HIS HONOUR: Your question, Mr. Meares, was directed to work published in this country, was it not?

MR. MEARES: Q. Might I add "published or available in this country"? A. Would I be able to refer you to a paper, was the question?

Q. Yes. A. I probably would if you gave me sufficient time. 30

Q. But you do not know of such a paper now? A. I have not made a study of the subject -

Q. You have not made a study - ? A. A search of the subject, no.

Q. Well, might I put it in a more practical way to you? Supposing somebody had said to you in 1957, "I want to get a quick answer from you as to the effect of oil on open waters and in relation to problems of inflammability," what book, if any, would you have gone to? (objected to). 40

MR. MEARES: I think I should use "harbour waters".

HIS HONOUR: Yes, quite.

MR. MEARES: Q. On harbour waters. Could you have gone to any text books which dealt with the thing - ? A. I do not think in the text books, but specialist literature.

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Q. Can you refer me to any book or literature which would deal with it? A. Well, if you know how to use a library you could look it up.

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10

Q. My question is, could you refer me now to any such book? A. Yes; I could look at the number of publications of the Fire Research Board -

Q. Which Fire Research Board? A. Of Britain.

Q. You are not talking about the N.F.P.A.? A. I do not know how you abbreviate it. There are a number of papers written by them.

20

Q. Do you suggest that any of those publications deal with the problem at all? I want you to think? A. The problem of igniting liquid fuel is not very different from the problem of igniting liquid fuel on water.

Q. Could you refer me to any publication which deals with the problem of igniting liquid fuel on harbour waters or open waters? A. I could, but not offhand.

Q. Well, do you suggest that there is anything written on it in the Fire Research Board publications in England? Now I want you to think? A. Well, I believe that there might be.

Q. You believe that there might be? A. Yes.

30

Q. Now dealing with flashpoint just for the moment, and to relate it to something that some know more about - some article on a liquid that some know more about than fuel oil - what would the flashpoint of whisky be? A. What concentration?

Q. Well, the ordinary percentage that some people drink? A. Well, it certainly would be lower than that of furnace oil.

40

Q. It would be about 70, would it not? A. It may be that or less. Scientifically speaking I would not be able to give you an answer to that, because I have not done those measurements.

Q. And that of wine would vary between 70 and 120 roughly, would it not? A. Well, wine consists largely of water. It depends on the spirit content of it.

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Q. Whisky 87 and wine between 60 and 120?  
A. If you say they are right I will accept them.

Q. And the boiling point of this oil, of course, would be between 350 and 360 degrees centigrade? (Objected to).

MR. MEARES: I will prove it in another way.

Q. Do you know the boiling point of this oil?  
A. No.

Q. No idea of it? A. I know the range of boiling points for furnace oils, but I do not know -

10

Q. What is the range of boiling points of furnace oil? A. Different constituents would make for different temperatures. It depends on the condition of the oil, but most of them will not boil off at all; they will decompose before they boil off; they will "crack".

Q. Prior to three years ago had you ever spoken to anybody who had ever heard or seen of oil being ignited on a harbour - furnace oil - prior to three years ago? (Objected to - pressed - admitted).

20

Q. What is your answer? A. Would you mind repeating the question?

Q. Prior to 1957 had you ever spoken to any man or person who said he had seen furnace oil ignited on a harbour or open waters or who told you that - ? A. No, I have not spoken to any man who has told me those things.

Q. At p.107 of your evidence you said that you have been mostly concerned with the combustion of hydro-carbon fuels, is that right? A. Yes.

30

Q. Coal is not a hydro-carbon fuel, is it?  
A. I would say so, yes.

Q. What? A. I would say, yes.

Q. You would describe coal as a hydro-carbon fuel? A. Yes.

Q. Would you think that a scientific description of it - coal? A. Yes.

Q. A hydro-carbon fuel? A. Yes; all fossil fuel consists of hydro-carbon constituents.

40

Q. Have you ever in your life, made any tests of the spreading of fuel oil in a harbour or in enclosed waters? A. I have carried out no tests in harbour water of any description.

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Q. You described tests, did you not, of oil of one sixteenth of an inch thick on water - is that so? A. I described some tests of that thickness.

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10 Q. You said that you had never made any tests that you have described of oil of any greater thickness of one sixteenth? A. I was referring then to the tests in the last few days when I was more concerned with the thinness of the film than with the thickness of the film.

Cross-  
examination  
continued

Q. Would you tell me how you determined the thickness of a film of oil? A. Yes.

Q. Well, you tell me? A. Well, I calculated the surface area of the water exposed -

20 Q. First of all, what was the surface area of the water exposed, in your tests - very roughly? Was it the size of a tumbler or this Court room or what? A. Well, for the most ignition tests it was about that size (indicating).

Q. What - about two feet long? A. No; about that size (indicating).

Q. Just give us the dimensions? A. Just over a foot long.

HIS HONOUR: Circular.

MR. MEARES: Q. A foot in diameter? A. Yes.

30 Q. How did you determine the surface thickness of the oil? A. I calculated the surface area of that water and then volumetrically measured the volume of oil that would give me the thickness of that oil when uniformly spread on that surface.

Q. But did you consider the meniscus effect of the oil in a circular container of that nature? Did you consider that at all? A. No; it was most irrelevant for the purposes of the test to consider it.

40 Q. We have heard about oil piling up against piles and things? A. Yes.

Q. Well now, if you put oil in a vessel of that size and shape, do you suggest that you will necessarily get an even thickness throughout the vessel? A. No; I would not like to suggest that.



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Q. It might be thicker at one part than another?  
A. It could well be. If I recollect the evidence the other day, Mr. Parkin suggested a specialised build-up at the edges. I could not express an opinion as to the oil on the water.

Q. And you would not suggest how Mr. Parkin's story of build-up could occur? A. I could try.

Q. Have you given it any thought? A. No, I have not.

Q. Is it the first time you have ever heard of such a phenomenon? A. It may be. 10

Q. So that in this vessel the only method you had of testing the thickness of the oil was simply by calculating the quantity that would be necessary to provide a thickness of one sixteenth of an inch in a certain area? A. Uniformly, yes.

Q. What? A. Uniformly.

Q. And of course I put this to you, that in such a vessel the oil would certainly differ in thickness from one part of the area to another? A. In a small vessel? 20

Q. Yes - would certainly differ, I put to you?  
A. It depends on what precautions you take to ensure uniform distribution, but scientifically speaking you cannot swear that it will be the same throughout unless you make actual measurements.

Q. But in the tests you made it would certainly have varied in thickness throughout the surface area? A. It tended to vary as soon as the wick was ignited - 30

Q. No; before the wick was ignited? A. As soon as the wick was dropped in the oil.

Q. No; before the wick was dropped? A. There might have been slight variations. I would not like to say that there were not.

Q. And what did you measure? You measured an amount of oil, did you, representing the amount you needed to cover a surface of one foot in diameter one sixteenth of an inch in thickness - is that right? A. Various thicknesses - one sixteenth; less than one sixteenth in previous tests - 40

Q. And having measured it and calculated the amount, did you put that in a beaker or cylinder of some sort? A. Yes.

Q. And then you poured it into the water?  
A. Poured it uniformly over the area of the water and watched how it reached the water and how it dispersed itself.

Q. Did you put it in the corner or in the centre? A. All over the place.

10 Q. Might I suggest just as you would put cream over a large plate of porridge, sort of thing?  
A. Yes.

Q. That sort of thing? A. Yes.

Q. Now what about your cylinder? Did you get all the oil out of the cylinder that you were pouring, or did you leave any in? A. Well, there might have been a fraction of a cc. left in the cylinder. I did not watch that with any particularity.

20 Q. This oil is pretty thick stuff is it not?  
A. Yes. I would not say that what I did was strictly a perfect example of how a scientific test should be conducted.

Q. Did you allow this oil to weather at all or to stay for any period of time out in the open? A. The oil was not exposed previously in the open air.

Q. And after you have poured it out was it exposed in the open air for any period of time?  
A. For a very small period of time.

30 Q. But not long enough to observe whether in any way it changed its characteristics? A. No.

Q. Would you agree with me that if oil is put on the surface of a harbour or other salt water area, after a period of time it will tend to emulsify with the salt water, and for its flashpoint to be increased? A. If it does emulsify the flashpoint will probably increase.

40 Q. Would you agree with me that its tendency would be, if mixed with salt water, and on a harbour subject to wind, - that it would tend to emulsify? (Objected to - pressed).

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HIS HONOUR: Q. I think that the question that is being put is that if you assume oil in contact with water in a harbour, does it tend to emulsify? Can you answer that? A. I cannot. I have not conducted experiments in the harbour, really.

MR. MEARES: Q. Well, you would not deny the probability of such a condition? A. It could be possible if conditions are favourable. It could be done in the laboratory perhaps with proper agitation. 10

Q. Of course, if that had happened after a matter of two and a half days, then, of course, you would find that this oil would be even more difficult to ignite than when it was first put out? A. As an oil in the liquid form its vapours would be no more difficult to ignite.

Q. It is the oil that ignites, is it not? The oil has to vaporise before it ignites, is that correct? A. Yes.

Q. And it can only be vaporised by heat - is that so? A. That is one way of vaporising, by heat, yes. 20

Q. Well now, would you agree with this - asphaltic oils - and is this an asphaltic fuel oil? A. I would not be able to say.

Q. Don't you even know the properties of the oil? A. No - not the oil in the wharf case.

Q. Well, is not that important? A. To me, it is not.

Q. Is not that important? A. To whom? 30

Q. To you? A. No.

Q. Well, supposing I told you this, that asphaltic fuel oils, when agitated with salt water, form emulsions consisting of oil, water and air. These emulsions are very viscous and adhesive and resemble a heavy grease much more than the original oils. Some change takes place in the physical characteristics of the oils during agitation with salt water which causes an increase in gravity, flash-point and viscosity? A. Yes. 40

Q. Would you deny the probability of that proposition, and I am reading from the same book, at p.6? Would you deny the probability of that proposition? A. I would not be prepared to deny

it, but I would like to satisfy myself from the evidence that that is so.

Q. Now I am putting to you that all fuel oils used in tank ships are asphaltic oils - do you know? All fuel oils used in tank ships are asphaltic oils? A. Would you define "asphaltic oils" for me, please?

10 Q. You did not boggle at that word before. You said that some oils were not asphaltic. You do not need me to define that? Would you answer my question, and it is that all fuel oils used in tankers are asphaltic oils?  
A. I certainly would not be able to answer that question.

Q. You just do not know? A. I would not know, no.

20 Q. Do you still say that you are an expert in the properties of fuel oils? Do you still say that you are an expert in the properties of fuel oils? A. I am not denying it.

Q. But you cannot tell me whether fuel oils used in tankers are all asphaltic or not? You just do not know? A. I know what furnace and fuel oils are.

Q. Well, are they all asphaltic, are they?  
A. Well, I have argued with myself for hours. I would not be prepared to give the definition to know what you mean by that.

30 Q. When I refer to this report and read, "asphaltic fuel oils, when agitated with salt water," you do not know what the expression "asphaltic fuel oils" means? A. I have a general idea, but I would not be prepared to say exactly what it means in the context there.

Q. You would not be able to hazard a guess as to the extent to which, in a harbour, fuel oil could build up in an unconfined area in the sense of it being our Harbour, if you like - ?  
A. Yes.

40 Q. Above the surface of the water, or to what extent it could be, if I could put it another way, alternatively, displacing the water? You just would not be able to hazard a guess, would you?  
A. I would not like to guess on a matter like that. It is simple scientific deduction that oil will not displace water.

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Q. Well then, if it does not displace water, what does it do? A. It floats.

Q. The term "asphalt base" - would that be the same as a description of asphaltic oils? A. May I refer you to my paper - ?

Q. No, please. A. In my paper -

Q. No.

HIS HONOUR: Please answer the question.

MR. MEARES: Q. If I said "a fuel oil with an asphaltic base," would that be the same as using the expression "an asphaltic fuel oil"? A. It could be if you used it in the sense to mean the same, yes. 10

Q. It could be. Well, let us see what you said about this matter. At p.2 of this same paper you have got a heading "oil fuels defined"? (document shown to witness). A. Yes.

Q. If you want me to read it I will, but I do not think we need to worry about that? A. No.

Q. Then you go on. "There are three main types of petroleum crudes"? A. Yes. 20

Q. Paraffin base or wax base, asphalt base or mixed base"? A. Yes.

Q. Is that a correct description of the three types of crude oils? A. It is correct as far as it goes. Some will define them in seven groups.

Q. Well then, I will put this to you.

MR. ASH: Q. Would you please read that out again?

MR. MEARES: Q. "There are three main types of petroleum crudes". I suggest to you now that the only one of those types used in tankers is a petroleum crude with an asphalt base. (Objected to). 30

Q. Used for firing tankers - firing ships - oils? A. I see no obvious reasons why mixed base fuels should not be used in tankers.

Q. Are they? A. I can see no reason why they should not.

Q. But you do not know whether they are not? A. No. 40

Q. You say that oil does not displace the water - it floats on top of it? A. Yes.

Q. And it tends, does it not, when it is put on water, to spread? A. Yes.

Q. So that one could imagine, if you had a sufficient force of a quantity of oil going deep down into the water - would that be correct - initially? A. Yes; if you poured it out from a big container.

10 Q. And then, rising as a result of gravity forces - would that be correct - there would be spreading? A. On the water, yes.

Q. And the oil will tend to spread to a consistent height or to the extent of a consistent height above the water? A. A consistent height? I could not say "Yes" to that expression. I would not know.

Q. You would not know? A. We have had evidence by people who have actually seen it, and it was not consistent; so that I would not be able to say that it is consistent.

20 Q. The fuel oil that you poured out - fuel oil of a 170 - dissipated throughout the whole of this foot surface? A. With my assistance, it did.

Q. What assistance did you give it? A. I spread it out uniformly over the area and I agitated it and blew it and generally tried to ensure that it was uniformly distributed.

30 Q. Well, may I take it that if you dropped it out of a container into a harbour, that oil would tend to spread until it was over the surface of the water where it was, and it would be of a consistent equal depth throughout? A. I do not think that would be right - throughout.

Q. Well, where do you think it would be thickest, the oil? A. Where conditions are such as will enable it to concentrate.

40 Q. Yes, but leave out the concentration or dropping of it. I will come to that. If you simply put it in the harbour and it was not trapped in the sense of before it got to the shores - a large area of harbour - you would expect the oil, would you not, throughout, to be of a consistent thickness? A. No; I would not necessarily expect that because the surface of the water will affect it spreading - whether it is contaminated or not.

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Cross-  
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Cross-  
examination  
continued

HIS HONOUR: Q. Forget water for the moment.  
If I had a perfectly flat, smooth surface - let  
us say glass? A. Yes.

Q. And I poured some of this fuel oil into the  
centre of us? A. Yes.

Q. It would start to spread, would it not? A. Yes.

Q. At any given point of its spread it would not  
be of a uniform depth throughout the oil, would it?  
I would have thought obviously not? A. If the  
surface is smooth and there are not other effects 10  
acting, it will tend to level itself out and  
spread itself smoothly except for end effects.

Q. It will tend to spread itself out uniformly?  
A. Given sufficient time, yes.

Q. But if you take a point of time in which it  
is still in the process of spreading and you still  
have an edge to it, would it not be less deep at  
the edge than further in? A. But you would not  
be able to say that it is uniform.

Q. MR. MEARES: But all around the edges you would 20  
get to a stage, would you not, where there was  
only a slick of oil? A. You could produce  
conditions where you would get that, yes.

Q. But would not that be the ordinary conditions  
in which you find oil on water - that it would  
peter out at the edges? A. Yes.

HIS HONOUR: I do not know whether you are agreeing  
with my theory or not. You are not bound to, but I  
thought you were pressing for a completely  
opposite view, Mr. Meares, 30

MR. MEARES: Q. I understood the witness to say  
that assuming that it was a smooth surface the  
oil would spread evenly. That is what I thought  
the witness said, contrary to Your Honour's view.

HIS HONOUR: I did not understand what was contrary  
to my view at all.

(At this stage His Honour directed the  
following questions and answers to be read  
from the shorthand notes:

"Q. Forget water for the moment. If I had 40  
a perfectly flat, smooth surface - let  
us say glass? A. Yes.

Q. And I poured some of this fuel oil  
into the centre of it? A. Yes.

- Q. It would start to spread, would it not? A. Yes.
- Q. At any given point of spread it would not be of a uniform depth throughout the oil, would it? I would have thought obviously not? A. If the surface is smooth and there are not other effects acting, it will tend to level itself out and spread itself smoothly except for end effects.
- Q. It will tend to spread itself out uniformly? A. Given sufficient time, yes.
- Q. But if you take a point of time in which it is still in the process of spreading and you still have an edge to it, would it not be less deep at the edge than further in? A. But you would not be able to say that it is uniform." ).

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Cross-  
examination  
continued

10

20

MR. MEARES: Q. What other things could operate in the harbour to cause a variation in thickness of this oil spillage? A. I do not think that that is in my competence to answer.

HIS HONOUR: Q. Well, instead of my hypothetical smooth flat surface, you have a surface which, to a degree, is moving and is itself not smooth? A. Yes.

30

Q. And that could have, I suppose, at least temporary effects from point to point throughout your spread of oil? A. Yes.

Q. As to its depths? A. You have static conditions and you have dynamic conditions, so that it would not be uniform.

MR. MEARES: Q. So that from one particular point to another particular point you might have a variations in thickness? A. Yes, quite.

40

Q. And you do not know what those variations would be? A. No; I have made no tests in harbour waters.

Q. Or in the laboratory? A. I have made visual observations in the laboratory.

Q. And what were those visual observations? A. When the wick starts to have an effect there is a thinning effect in the vicinity of the wick and you get concentric circles of varying thickness - that is from visual observation.



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Q. And that was after a wick had been operating in a lighted condition? A. I made observations at the time of the pouring and spreading of the oil but only in the laboratory.

Q. Assuming that the surface of the water is contaminated will the oil tend to build up thicker there or thinner? A. I would expect it to build up thicker if it is contaminated.

Q. Why? A. Because these surface effects would tend to make the oil climb, as it were, upon itself. 10

Q. By "contamination", do you mean objects in the water? A. No.

Q. What do you mean by "contamination"? A. Such contaminants as detergents and solvents; effects that I produce by adding impurities which are bound to exist in a confined wharf type of water.

Q. Such things as detergents and solvents? A. Anything that would find its way into it; in other words, not the water one would find in the open sea. 20

Q. Why would that be?

HIS HONOUR: Q. Why would it be?

MR. MEARES: Q. With contaminating substances of the sort you describe in ordinary salt water, the oil would tend to climb? A. That would explain the ordinary chemical effects.

Q. Well, would you explain it to me? A. Well, I am not a specialist in those matters.

Q. Well then, you do not know, as an expert, one way or the other? (Objected to - pressed). 30

Q. As an expert do you know that or not?

A. As a scientist I have taken the results of other scientists who have observed it, as correct, and have satisfied myself that that is so.

Q. Well, is this in your sphere of scientific knowledge - that is all I want to know? A. Physical chemistry is, yes.

HIS HONOUR: When you asked, in the context of the previous questions was it within the sphere of his knowledge, I think there was danger of some confusion. He has just said that it is something that he knows derivatively so to speak. 40

MR. MEARES: Q. You cannot speak of that matter on your own expert knowledge? A. I can speak on my own knowledge but not on my own experimental observations.

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Q. Well, I am going to suggest to you now that that conclusion is completely wrong. What would you say to that? A. Well, given sufficient time and if you had sufficient background I think I would be able to convince, -

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Cross-  
examination  
continued

10 Q. No. If I said to you now that that conclusion is completely wrong, what would you say? A. I would say that you did not know what you were talking about.

HIS HONOUR: Q. Well, you disagree? A. Yes.

MR. MEARES: Q. Would you detail the contaminants to me that would have this effect, since you are so certain in your views? Detail the contaminants that would have this effect, please? A. I would not be prepared to do that. If given sufficient time  
20 I will do it.

Q. Can you think of any at this moment? A. No; I do not carry all my reasons -

Q. Would you be able to suggest any contaminant? A. Given sufficient time, yes.

Q. But you have expressed a view, have you not? A. When I have looked at that problem I have satisfied myself that that is the view that I would accept scientifically. The reasons why I have satisfied myself, I have not carried them  
30 in my head sufficiently to produce them now.

Q. How did you satisfy yourself? A. By my readings of scientific information.

Q. Of what? A. Of science.

Q. But what books? A. Many scientific books.

Q. You referred me a moment ago, did you not, to contaminants such as solvents or detergents, and when I asked you to mention any contaminants you said you could not. Do you still say that solvents or detergents in the water of the harbour would cause build-up of the oil? Is that what  
40 you postulate now? A. No, I do not say that.

Q. Well, didn't you? A. No. I wanted to refer to surface effects which could be controlled by solvents and contaminants. It is likely that

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continued

these will have an opposite effect. They modify the surface properties in the matter.

Q. Well, the solvents and detergents would not cause any build-up of the oil, assuming that they were in the harbour, would they? A. I would not be prepared to say " Yes" or "No" to that question.

Q. Well, why did you mention them to me as being a cause of oil build-up? A. I mentioned them as a possibility of surface effects.

10

Q. Well, do you suggest the possibility of solvents or detergents in the harbour waters? A. I am not denying it, but I am not suggesting that they are the ones that are responsible for the build-up of the oil.

Q. You expressed this view at p.108 of the transcript. You said, "Normally if the surface of the water is contaminated the oil will tend to build up in a thicker layer?" A. Yes.

Q. Now I am asking you what contaminants could bring that about? A. As I have not had notice of that question I could not answer it.

20

Q. But you expressed that view yesterday?  
A. Yes.

Q. What form of contaminants could bring that about? Solvents would have the opposite effect and detergents would have the opposite effect you now say? Could you give me one contaminant in the harbour in certain circumstances which would cause oil to build up - just one?  
A. I could not say offhand.

30

Q. You cannot give me one? (Objected to.)

Q. You understand what I mean by "contaminants"; that is the word you used? A. Yes; contaminants are impurities. They mean the same thing in that sense.

(At this stage further hearing adjourned until Monday, 11th February, 1963 at 10.00 a.m.)

IN COMMERCIAL CAUSES Nos.3000 & 3001 of 1955  
CORAM: WALSH J.

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THE MILLER STEAMSHIP CO. PTY. LIMITED

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v.  
VACUUM OIL CO. PTY. LIMITED,  
CALTEX OIL (AUST.) PTY. LIMITED and  
OVERSEAS TANKSHIP (U.K.) LIMITED

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R. W. MILLER & CO. PTY. LIMITED v. SAME

Cross-  
examination  
continued

FOURTH DAY: MONDAY, 11TH FEBRUARY 1963

10 (Piece of cotton waste used by witness in  
experiments referred to at p.127, tendered;  
admitted and marked Exhibit E).

MR. ASH: I should have told Your Honour earlier  
that my friend and I had agreed to have experts  
in Court. Professor Kirov was in Court during  
Mr. Parkin's evidence or a large portion of it,  
and Professor Hunter, for the defendant, was in  
Court for a portion of it and during Professor  
Kirov's evidence.

20 (Mr. Mears asked that the figure 360 in the  
2nd question on p.172 be altered to 650; no  
decision at this stage.

The answer to the 1st question on p.183  
was amended to read: "I can speak of my own  
knowledge but not on my own experimental  
observations.")

30 MR. MEARES: In relation to the experiments  
detailed in the transcript p.127 it is stated, in  
brackets, "At this stage the witness lit the  
cotton waste and fanned it by blowing. The waste  
was lit three times in all." Could it be noted  
that three matches were applied in the course of  
lighting it?

40 MR. ASH: Three matches were applied but I have a  
clear recollection of it igniting each time but  
going out the first two times - not immediately  
but pretty soon.

HIS HONOUR: I think that is right.

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Cross-  
examination  
continued

MR. ASH: I have it noted that, where it refers at p.131 to the cotton waste burning, the witness referred to the cotton waste which still had an inverted tumbler over it.

MR. MEARES: I agree with that.

HIS HONOUR: That statement refers to the cotton waste with an inverted tumbler over it.

NICHOLAS YORDAN KIROV, Cross-examination continued:

MR. MEARES: Q. You may recall to Mr. Ash pointing out that you had a substantial experience in regard to coal research and that coal was a hydro-carbon fuel. Do you remember that? A. Yes.

10

Q. Of course, fuel oil is a hydro-carbon fuel?  
A. Yes.

Q. As a scientist I ask you once again, do you still maintain that coal is correctly described as a hydro-carbon fuel? A. Yes.

Q. You went on to say that all fossil fuel consists of hydro-carbon constituents, did you not? A. All fossil fuels consist of hydro-carbon constituents, yes.

20

Q. Did you say that? A. Yes.

Q. In point of fact, there are fossil fuels which consist of constituents other than hydro-carbon constituents? A. Could I have the question again? You mean there are constituents in these fossil fuels which will not burn?

Q. In some, which are not hydro-carbon constituents? A. That is the non-combustible material.

Q. What about lignite? A. Yes.

30

Q. Lignite consists, does it not, of hydro-carbon constituents and many others? A. Such as?

HIS HONOUR: Q. Does it have other constituents?  
A. Well, it has mineral impurities, like all fuels, to a degree, and water.

MR. MEARES: Q. And a great percentage of oxygen?  
A. Indeed it has.

Q. And of course coal has constituents other than constituents of hydrogen and carbon?  
A. Coal is basically the same elementary constituents as fuel oil.

40

Q. Did you hear my question? A. Yes.

Q. Would you answer it? A. I think it is wrongly framed.

HIS HONOUR: Q. Coal has hydrogen and carbon in it, in combination? A. It has hydrogen and carbon in it, in combination.

Q. The question is, has it other things in it? A. Certainly.

10 MR. MEARES: Q. And of course, the distinction between it and fuel oil is that fuel oil has nothing in it other than hydrogen and carbon, subject to minor impurities such as sulphur? A. You are very wrong.

HIS HONOUR: Q. Would you say it has oxygen? I do not mean free oxygen. A. It has oxygen, hydrogen, sulphur and practically every constituent you can think of as an elementary constituent, in very small proportions, associated either with the hydro-carbons or with the mineral impurities.

20 MR. MEARES: Q. You indicated the ability, by test, to cause the cotton waste which you produced, to smoulder if you blew on it. Do you recall that? A. Yes.

Q. Have you ever given any thought to the velocity that you were introducing on to the cotton waste by blowing? A. You mean have I measured it?

Q. Yes. A. No, I have not.

30 Q. Would you be prepared to say that, in the fashion in which you blew it, you would be blowing on to the waste at a minimum of 25 miles an hour? A. I think the type of experiments I carried out ranged in the velocity, from a very very tiny whiff to a bit more blowing until such time, in some cases, as I put the fire out on a small wick, by blowing very hard at it.

40 Q. I am suggesting to you that the type of blowing you introduced on to the cotton waste in Court, would have been in the vicinity of 25 miles an hour or more. Would you agree with that? A. I would not agree or disagree, because I would not know.

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continued

Q. I appreciate that, but a suggestion that it would be a minimum of 25 miles an hour would not scientifically insult you? A. No. It seems to me rather excessive.

Q. I was asking you, I think on Friday, as to your reading of the journals dealing with your specialty? A. Yes.

Q. You told me that you had never read in those journals of any oil on water incident and I think you suggested, did you not, that you might be able to find some examples of such matter having been discussed scientifically. (Objected to).

10

Q. Have you indulged in any research during the weekend, to see whether you could find any articles dealing with the occurrence of fire caused through fuel oil on water? A. No.

Q. When I ask have you done any research, may I take it since I cross-examined you on Friday you have not looked at any books? A. No. I have looked at a lot of books. I have carried out additional experiments.

20

Q. Have you looked at a lot of books with regard to seeing whether you could find any example of fire occurrence of fuel oil on water? A. I was not looking for that specific information.

Q. Did you search the index for such? A. No.

Q. Well, what were you looking at the books for? A. I was looking for a lot of additional information relevant to the point I was asked here in Court on Friday.

30

Q. What relevant information or irrelevant information were you searching for? A. I wanted to satisfy myself that some of the off-the-cuff answers I gave in Court had a sound scientific basis.

Q. What were those off-the-cuff answers? A. I am at a complete disadvantage in not having the transcript. You asked me about the residual oil in the cylinder. I satisfied myself on that. You asked me whether I observed a meniscus. I satisfied myself that was a completely insignificant point to ask me. You asked me did I visit the area. I visited the area, obtained four or five gallons of water from that area. You asked

40

me had I carried out experiments on salt water and I said fresh water, but since then I have repeated them on salt water.

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HIS HONOUR: Q. With any significant difference?  
A. No.

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MR. MEARES: Q. On what depths of salt water did you repeat them? A. Six inches or more.

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Q. Salt water mixed with sodium chloride?  
A. No, salt water from the Morts Dock area.

Cross-  
examination  
continued

10 HIS HONOUR: Q. Salt water from the harbour?  
A. Yes. I have a sample here.

MR. MEARES: Q. Go on. What else? A. You asked me about the building up of oil. I satisfied myself on the scientific soundness of contaminants on the surface of water and the possibility of oil build-up in thickness. I have scientific evidence which, if you wish, I can introduce. You asked me further on the question of formation of emulsion and I have a lot to say on that. You also asked me if all  
20 bunker oils are produced from asphaltic base crudes. I replied that I could not accept your assertion on that, but I am prepared to argue about it now. It is all a long assumption.

Q. Will you agree with me now that all fuel oils used in tankers or other ships, for the purpose of moving the ship, are either asphaltic or a mixture of asphaltic with other elements? A. I would not even agree with that.

30 Q. Would you agree that the majority by far, of fuel oils, used for bunkering, are asphaltic?  
A. It is quite probable. In the eastern States the refineries are processing crude, either paraffinic base or mixed base.

Q. You are not suggesting that you would use paraffin-based oil for bunkering, are you? A. I am not suggesting that the paraffin-based crude would be excluded simply because it is a paraffin-based crude.

Q. You are not suggesting that - A. No.

40 Q. Let me finish the question. You are not suggesting that paraffin-based oils are used for bunkering in this State, are you? A. Yes. I would go so far as to suggest that.



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continued

Q. What, paraffin base simpliciter - a pure paraffin base with no asphalt is being used for bunkering? A. What is a pure paraffin base?

Q. Well, with no asphalt in it. Are you suggesting that paraffin-based oils are used for bunkering? A. I am not suggesting that you would have any oil that is a pure paraffin-based oil.

Q. Are you suggesting that any paraffin-based oil without asphalt, is used for bunkering? A. I am suggesting that in the classification that you read to me on Friday, of what you classified as a paraffin-based crude, I am suggesting that the residual oil from that group could be used as a bunker fuel oil. 10

Q. Would you answer my question? A. I thought I answered it.

Q. No. Are you suggesting that any paraffin-based oils are used for bunkering in this State? A. Yes.

Q. Who sells them? A. Kurnell Refinery refines paraffin-based crude and they sell bunker oil. 20

Q. But they also refine mixed base fuel, do they not? A. Not much, to my knowledge.

Q. Where did you get that information from? A. Am I entitled to disclose all my sources of information?

HIS HONOUR: Q. Have you some difficulty about having got some confidential information? A. I have in a way, yes. I am prepared to stand by those statements. 30

HIS HONOUR: You want to know where he got the information about this oil?

MR. MEARES: Yes.

HIS HONOUR: Perhaps he could write it down.

WITNESS: I have discussed it with the fuel oil engineer employed by one of the oil companies.

MR. MEARES: Q. So your information, your knowledge about these things which you have been relating, is based on information you have received from some fuel engineer? A. Not entirely. I did a study of the subject some time ago, in preparation for my earlier papers. I have tabulated in that very report you quoted to me on Friday, a list of the characteristics of the various fuel oils, and I did a lot of research on oils from all companies. 40

Q. Are you still prepared to maintain that paraffin-based oil - A. We are referring to the crude?

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Q. Of course we are - that paraffin-based oil is used as a fuel oil in bunkering, in this State? A. I think paraffin-based crude in this State - (Objected to).

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10 Q. I will leave the question in that form. Could you answer it? (Question read). A. May I explain?

Cross-  
examination  
continued

HIS HONOUR: I think you can answer directly.

WITNESS: No, because we have never agreed on what is a paraffin-base. There is a certain amount of difference, even between scientists.

HIS HONOUR: Q. Your answer, as I understand it now, is that you cannot answer the question for lack of sufficient definition of the terms in which it is asked. Is that right? A. Yes.

20 MR. MEARES: Q. Tell me what a fair definition of paraffin-based oil is? A. It is one which will contain predominantly, paraffin constituents, and possibly waxy type constituents.

Q. But no asphalt? A. It will have a certain amount of asphalt.

Q. If it has a certain amount of asphalt it is fairly described, as you described it in your paper, as mixed fuel? A. All fuels are mixed.

Q. Is that correct or not?

30 HIS HONOUR: That is correct, but he also says it would be correct to say that of any fuel.

MR. MEARES: Q. You described fuels as asphalt, paraffin or mixed? A. Yes, but that does not mean that the asphalt ones do not have paraffin or vice versa. It is the predominant mixture in which they are classified.

Q. You did some research at the weekend and did some on contaminants. Is that correct? A. Yes.

40 Q. What research did you do?  
A. Possibly not very relevant to -

Q. What research did you do? A. I did research mainly on the function of active agents on surface and colloidal chemistry, on physical aspects of

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Cross-  
examination  
continued

modifying surface effects by various shapes and sizes of different molecules.

Q. May I suggest to you that this is outside your field? A. You may not. Science is not divided into boxes.

Q. What research did you do? A. I studied the physical chemistry effects on the production of emulsions, froth flotation, active agents in modifying the surface interfacial effect between liquid and solid, oil liquid and water.

10

Q. And you learnt something that you did not know before. A. We always do that.

Q. What did you read? A. Books. You mean what books did I read?

Q. Yes. A. I read a book, or glanced at a book. I glanced through a book by Ridal & David on interfacial chemistry. I have two books here.. Without notes it is possible to slip up on a name. I looked up a book on petroleum refining, by Nelson. I looked up the so-called Bible of the chemical engineer, the Handbook of the Chemical Engineer by Perry. I looked up the so-called Bible of the physical chemist, a book by Gladstone.

20

Q. What is that called? A. It is The Chemical Engineering Handbook. Gladstone is a book on physical chemistry.

Q. I suppose you have brought the best ones along? A. I have brought a couple here, yes. I have a couple of books here which are more on the fundamental aspects. This one is on the physical chemistry of surfaces.

30

Q. The first one is called Physical Chemistry of Surfaces, by Adamson? A. Yes.

Q. And the second one Principles of Flotation, by Sutherland & Wark, 1955? A. Yes.

Q. And that, I think, is an Australian book? A. That was published by a couple of Australian authors, Dr. Wark, who was the Chief of Division of Physical Chemistry, C.S.I.R.O., and Dr. Sutherland who was the Assistant Chief, now Director of Research at the C.S.I.R.O.

40

Q. Would you like to refer to the page or pages which you describe to us - what the authors think about this problem? A. I would not. They do not think about this problem at all, because they have not studied it.

Q. Well, they are not worth much to us. A. They are worth it to me. They give me the basic facts on which I base my deductions.

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Q. Could you refer to any deductions which they have made on this question, which would support the view you expressed that contaminants would cause a buildup? A. Yes.

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10 Q. Would you please turn to the page? May I take it you cannot refer me to anything in Sutherland & Wark's Principles of Flotation? A. Not at this moment.

Cross-  
examination  
continued

Q. Why did you bring them in? A. I have a lot of books which I left in the car, which might have been more helpful.

Q. Why did you bring The Principles of Flotation in? A. Because I borrowed it from a colleague and I wanted to return it on my way back to the University. He happens to want it back.

20 Q. Let us come to the other book, The Physical Chemistry of Surfaces. A. That is not to imply that there are not useful bits of information which I could produce later on in Court, if the question is asked.

Q. (Book returned to witness). A. I think this book deals basically with the theory of formation of films and it shows, in not very easy language for laymen to understand, that when oil is spilt on the surface -

30 Q. Do not summarise it. Turn to the page or pages. A. Would it be possible for me to go through my notes, where I have marked the actual page?

HIS HONOUR: Yes.

WITNESS: I draw attention to the general summarising sentence on p.110. I think it is put in fairly lay terms.

MR. MEARES: Q. Do you mean under (b) "Some Further Observations"? A. No, "To Summarise" - that particular sentence.

40 Q. "To summarise, in the case of organic liquids on water" - what is an organic liquid? A. Well, hydro-carbon.

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Cross-  
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continued

Q. "The initial spreading coefficient may be positive or negative." Does that mean that it may tend, having been put on the water, to decrease or to increase? A. Well, that is positive and negative.

Q. "But the final state appears always to be one of mono-molecular film in equilibrium with excess liquid in the form of a lens." Does that suggest or support in any way at all, that the end mixture of the organic substance with contaminants in the water, will cause it to build up? 10

A. It does so. It is suggested that the initial oil will spread and that it itself will act as a self contaminant to allow the buildup. It is a fair summary of the -

Q. I will read it again. "To summarise, in the case of organic liquids on water, the initial spreading coefficient may be positive or negative, but the final state appears always to be one of a mono-molecular film in equilibrium with excess liquid (if any) in the form of a lens." Does that suggest to you, as a scientist, that contaminants will cause a building up? A. It suggests to me that the oil itself is acting as a contaminant and that would help to build up; yes. 20

Q. That the oil itself is a contaminant? A.Yes..

Q. You put it quite unequivocally, did you not-  
A. Yes.

Q. That the existence of contaminants other than the oil would cause a building up of the oil. Is not that what you postulated on Friday? 30  
A. Yes.

Q. Has this passage anything to do with the solution of that problem - anything? (No answer.)

Q. What is the answer? A. "Other than oil" is inserted in a statement with which I did not agree, and therefore it makes it difficult to give an answer. You are adding, in parenthesis, "other than the oil," which makes the question not a very easy one to answer. 40

Q. Did not you postulate on Friday, that the existence of contaminants in the water, would cause the oil to build up? That is what you postulated? A. Yes.

Q. I put it to you again. Does this statement on which you rely, in any way assist in establishing that thesis? A. That statement assists in establishing the thesis that the oil itself can be the contaminant which adds to thickness.

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Cross-  
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continued

10 Q. What you said at p.108 was, "If you pour diesel oil the diesel oil being very much lighter tends to spread out in a much thinner film over a wider area than the thick film which tends to build up. It also seems to have an effect of contaminating the water surface." You were using it in the sense in which you are using it now? A. Yes.

Q. I stand corrected in regard to that. "Did you say the less it will tend to go into a very thin film?" A. It is a self contaminant.

20 Q. "Q. In a harbour, or a bay of a harbour that has been described as dirty or somewhat dirty, does the oil do anything different or behave any different? A. Well, I would not be very much familiar with the exact circumstances existing in that particular case, but normally if the surface of the water is contaminated the oil will tend to build up in a thicker layer."

Do you remember saying that? A. That is right.

Q. You went on later on, to speak of the effects of solvents or detergents? A. Yes.

30 Q. When you speak about contaminants in that sense, what are you thinking of? A. I am thinking of a physical contaminant such as dust in the harbour, anything floating on the surface, anything that is going to modify the surface tension effect of the water.

40 Q. May I take it, for instance, if I put a piece of board in water of a size of five acres, on which oil was, we shall say, one-thirtysecond of an inch thick or take one-sixteenth of an inch or take one-quarter of an inch - what would the effect of the oil be if you put a piece of plank in the water? A. You mean stop it from spreading or erecting a barrier?

Q. No, I am putting it in an area of water of five acres, in the middle of it. What would be the effect of the piece of plank over the five acres or

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Cross-  
examination  
continued

over part of it or actually at the point of the plank? A. It is very difficult to give you a precise summary of all the effects that may take place. Do you mean will it displace some of the oil?

Q. Well, I have the plank in the water. It must displace the oil? A. Yes. It will partly get submerged or rather, if the oil is not sufficiently thick - it depends on the weight of the material. 10

Q. Take any example that you like of a plank, in any thickness of oil, any size of plank which you say would have the effect anywhere, of building up the oil in the harbour waters. A. You are trying to draw a parallel. May I explain that? When talking about molecular layers, you are talking about something you cannot see.

HIS HONOUR: Q. I know, but would you think the putting of the plank in, to which Mr. Meares has referred, would tend to cause a building-up of the thickness of the oil? A. It could well do, but the question is irrelevant to the argument. 20

Q. Whether irrelevant or not, do you think it would? A. I do not know.

MR. MEARES: Q. I just want to add this. Could you produce any other extract that you have dealing with the problem that we have been discussing, which would assist, in your opinion, in reaching a conclusion on this question of contaminants in oil, other than the oil? A. I think most of the passages there - 30

Q. Can you say Yes or NO? A. Yes, but it is very difficult to say, in one sentence, something which will make sense to this Court.

HIS HONOUR: Q. You mean you might get an impression from reading a whole chapter, which would not be crystallised in any one sentence or paragraph? A. Possibly not until I have read a chapter on certain fringe matters in another book. But if you look at p.107, it gives you a picture easy to see, how they visualise the initial mono-molecular layer as a contaminant, and then the building-up to a lens. 40

MR. MEARES: Q. That is the passage I read out to you? A. That is one sentence. The whole thing is documented. It is not just a vague statement.

Q. When you say that contaminant can cause a building up of the oil, do you mean in an infinitesimal or molecular sense, a thickness of three molecules or something of that order?

A. No. I think the mechanism is that you initially spread out the oil very thinly, in a molecular layer -

10 Q. What do you mean by "if you spread the oil out"? A. If you do not, it spreads itself. If you pour oil on the water, that is what happens. It spreads and forms a very thin, practically invisible layer, and any additional oil as it comes in, tends to build upon -

Q. Additional oil as it comes in? A. The very mechanism of building up film on water forms that principle.

Q. I want you to assume a conclusion of the spillage of the oil. A. Yes.

20 Q. The spillage is concluded and then the oil proceeds to spread, does it not? A. In answering these questions, am I answering general questions or -

Q. You have heard the oil was spilt out of the "Wagon Mound"? A. Yes.

Q. In substantial quantities? A. Yes.

Q. The oil will tend to spread? A. That will depend on viscosity and the temperature and other conditions.

30 Q. And then it spreads into a lens? A. The fact that it spreads into a lens shows that this molecular layer is not infinite but is finite, and enables it to spread into a lens and build up to the thickness of the lens.

Q. Having spread into a lens, how long would you imagine it would take the lens to form, to be completed, from the time of the spillage? A. The lens is building up all the time. It is there at the beginning and it is there at the end.

40 Q. It is not there at the beginning. A. The moment you start pouring it in it forms the lens.

Q. When could you postulate that this lens should reach its greatest area? A. That depends on so many environmental conditions it is difficult to postulate.

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Q. When, from the time it was poured out, if you were pouring a substantial volume, would it tend, in its life in and around the area, to thicken, if at all? A. You have wave motion, wind velocity. That would tend to thicken it, and thin it in different places. It is a dynamic condition. You cannot answer a question based on static conditions.

Cross-  
examination  
continued

Q. Wave motion you ascribe to it, and wind velocity? A. Yes, cooling effect of the water.

10

Q. We have heard evidence that, from Tuesday to Thursday there was a change, and some witnesses say it tended to thin. Would you agree that there would be the probability? A. That is quite possible. I would not be prepared to challenge the evidence of witnesses. There were probably the right conditions for thinning.

Q. Would you say that that would be more probable than not, under the conditions you have heard of, that the oil would tend not to thicken but to thin? A. It is a matter of the local conditions.

20

(Short adjournment).

Re-examination

RE-EXAMINED:

(In Absence of Witness)

MR. ASH: It would considerably shorten my re-examination if the question of the emulsification of the oil in the water could be dealt with in reply.

MR. MEARES: I will be maintaining, I should imagine that oil on water, for periods of time in the harbour, will emulsify and its flashpoint will increase. I get that from cross-examination.

30

HIS HONOUR: I do not know why that point rather than any other point.

MR. ASH: It can be argued both ways. Perhaps I had better re-examine him on that.

HIS HONOUR: I think so.

MR. ASH: Q. There are a number of isolated points I want to ask you questions about, arising out of the cross-examination, so if I jump from one to the other you will know that is the reason.

40

A. Yes.

Q. I think, first of all, you were asked some questions about a hypothetical situation, of a flame on water in a condition of completely still air. Do you recall that? A. Yes.

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Re-examination  
continued

10 Q. You pointed out about the concentric circle thinning. I want to ask you two questions arising out of that. If the oil as a whole, with the water, where this hypothetical flame is, is thick, beyond a mere film, does anything else accompany the concentric circle effect? You said the flame draws the oil immediately around to it. If the farther out surrounding oil is also thick, what is the effect?

MR. MEARES: If this is put on the risk of fire from a wick in still air, I object, because the professor in chief said it could not happen.

HIS HONOUR: I will allow the question.

20 MR. ASH: Q. Do you follow my question? A. Yes. I think in the context of the question, when I made a statement, it was an observation which I used to back my answer, namely when you put the wick in, immediately the oil is soaked up and you have a thinning of the surrounding oil, but oil from the surrounding area is used, and that continues until all the oil is used.

30 Q. Although the air is completely still, would any other movement tend to move the flame?  
A. Again, you have not got static conditions. The oil is moving all the time, by various molecular and other forces. The flame itself is in continuous motion, and that is causing air currents. You have temperature differences, and it is a continuous circulation in movement. You have not got static conditions under combustion conditions.

40 Q. Would the movement or non-movement of the water make any difference? A. Yes. If you begin to move the water, it would deflect the flames, yes.

Q. On another matter entirely, you were referred to a paper which you wrote defining flashpoint. Do you recall that? A. Yes.

Q. You answered to Mr. Meares, "Did not I give some figures for a test in that paragraph?"  
A. Yes.

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Re-examination  
continued

Q. He showed you the article? A. Yes.

Q. Were those figures to which you were referring, in the article? A. Yes.

Q. Where were they? A. In the following page.

Q. As regards asphaltic oils and oils with an asphaltic base, is the classification into asphaltic oils uniform among scientists, or does it vary? A. It is difficult to pinpoint clear lines of demarcation between the various groups of these oils.

10

Q. But do all scientists adopt the same line of demarcation, or do they vary one from the other? A. They do vary but there is an attempt to standardise things so that you know what you are talking about.

Q. I think you said you came here in 1952? A. Yes.

Q. What month? A. March.

Q. I think you answered His Honour almost on this point this morning, when His Honour asked you a question. You conducted certain tests on fresh water? A. Yes.

20

Q. If you conducted the same tests on salt water, in the light of your knowledge, would that have any differential effect on the results you have given us here?

MR. MEARES: Do you mean uncontaminated salt water or ordinary salt water?

MR. ASH: Q. Take uncontaminated salt water. You gave certain tests about cotton waste dropping, cotton waste preferential wetting and other matters doing the same thing, in varying degrees, down to wood? A. Yes.

30

Q. Would they have any material effect, one way or the other? A. I took a sample from the Morts Dock area, of water, and conducted additional tests on that. I did not repeat all the tests, but I have repeated a few key tests and I could not observe any significant difference with those results, obtained from fresh water.

40

Q. Assuming the salt water was dirtier than the specimen you took, apparently at the weekend? A. Yes.

Q. Out of the Morts Dock, as it stands at present - assume the salt water is slightly dirtier than that, would that affect the position one way or the other and if so, how?  
A. Under the conditions of my tests, I do not think it would have affected it.

10 Q. You were asked a number of questions about the varying flashpoint of fuel oil and, in particular, you were asked whether you had had a specimen of the oil which was under Sheerlegs Wharf on the day the fire occurred?  
A. Yes.

20 Q. For the purpose of your opinions expressed here, as to the mode of igniting and the expansion of a flame already ignited, is the flashpoint, whether between 150 or say 300, material? A. Well, the experiments I conducted covered a flashpoint up to 220 degrees, and I did not find any significant difference in the ignition and behaviour of the oil, compared with an oil say of 170.

Q. You said up to 220. What was the starting point? A. The lower limit is minus so many degrees.

HIS HONOUR: Q. But the lowest one you used on your own tests. Do you know what that was?  
A. Yes. That is what I am replying to. I even used motor spirit, which has a minus flashpoint.

30 MR. ASH: Q. Bearing in mind the temperature of a flame or of molten metal, is the flashpoint of the particular oil under the Sheerlegs Wharf that day, in your view material at all?

MR. MEARES: I never cross-examined on this. I just never dealt with this, and Mr. Ash never dealt with it in chief. I certainly do not recollect dealing with it in cross-examination.

40 MR. ASH: I think my friend cross-examined on the basis that a flashpoint might become higher than -

MR. MEARES: Yes. I suggested that the flashpoint would be greater in open water, of oil of 170 Pensky-Martin flashpoint. That was the extent, and that the fire point would be greater too.

MR. ASH: If it is limited to that, I misunderstood it.

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continued

Q. Dealing with that point, you were asked questions about the flashpoint being different in open water, to under the Sheerlegs Wharf. Do you remember that? A. Yes.

Q. Is the flashpoint of the oil or the vapour, or both, relevant to the matter asked? (Objected to).

Q. You were asked about the changing of a flashpoint with oil, on water, under different circumstances. Do you recall being asked that? A. Yes.

10

Q. What is the nature of the change? Is there any difference in the nature of the change between open water, say in the middle of the harbour, to the same oil under the Sheerlegs Wharf for two or three days, in the circumstances which you dealt with in chief? A. I cannot answer that question because I objected to the way I was asked that particular thing when Mr. Meares asked me. The flashpoint is a thing you carry out in the laboratory. You cannot talk about the flashpoint in the open sea. You have to get a sample and take it to the laboratory, and have the particular appliance.

20

Q. I think you were asked about the tendency - the flashpoint of oil left on the harbour, without any confinement. Does that tend to increase or decrease? A. If you take a sample after it has been left standing a considerable time and determine its flashpoint in the laboratory, under the usual conditions, the tendency will be for the oil to have a higher flashpoint.

30

Q. If you transfer the oil from the open water to under the Sheerlegs Wharf, what is the position about the flashpoint of the oil itself being likely to alter, and the flashpoint of anything else being likely to alter? A. There you are producing conditions confining possibly the vapours, and it is the vapours which will give a concentration of the lighter constituents. We are concerned not so much with what the liquid fuel behaves like. We are more concerned with the vapours and the ease of producing them. It is not easy to ignite a liquid, but it is easy to ignite a vapour.

40

Q. Could you give any opinion as to the tendency of the liquid itself and secondly, of the vapours themselves, whether there is any increase or

decrease of flashpoint in either of them, in those circumstances under the wharf? A. If you took the latter circumstances, the flashpoint will tend to increase and you will tend to concentrate the lighter constituents. They will tend to cling to the surface of the water if they are not dispersed.

10 Q. What have you to say then about the tendency of the flashpoint when they have left the water, under the wharf? A. That is the point I have made, that they are in bulk, of much lighter constituents, and tend to flash at a lower temperature than the bulk of the oil.

Q. You dealt with the meniscus effect this morning. You say to obtain a thickness of oil in some sort of beaker, you do it by calculation before you pour it in? A. Yes.

Q. If there was any banking-up around the sides of the beaker - A. Yes.

20 Q. - would that tend to lower or higher, fractionally, the film over the body of the beaker? A. It would tend to lower it.

Q. If there was a meniscus and there was a material variation in the depth of the film, it would be less than one-sixteenth of an inch? A. It is a wall effect which is always existent in containers.

30 Q. You were asked a question by way of a quote from an article here when it was said, as I recollect it, that some committee reported that there was no evidence of a serious fire risk of oil on open water. Taking that situation, is that at all, in your view, comparable to the Sheerlegs position, of the oil on that day in that semi-confined area? A. Having examined the area this weekend, I think the conditions are very different from those of the open sea.

40 MR. MEARES: I read to him a statement under the heading "Risk of Fire in Harbours and Other Enclosed Waters" - not in open waters. It was not put qua open water.

HIS HONOUR: I thought the expression used was "in the open sea," or some similar expression. We had better find it in the transcript. As read at p.150, I am wrong. But there was some quotation which used some such expression as "the open sea" or "open water".

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MR. ASH: What was read was: "I want to read to you this statement - 'Risk of Fires in Harbours and Other Enclosed Waters. We have had no evidence that the risk of fire from floating oil is serious.' Is it relevant in what portion of a harbour the floating oil is, that is to say, is it comparable in the open middle of a harbour, as against the conditions under the Sheerlegs Wharf? A. I would not say the two conditions are precisely comparable. In the case of the Sheerlegs Wharf, you have a lot of combustible timber-type material, as well as conditions where you could have pockets of concentration of combustible vapours, under certain conditions.

10

Q. You will recall that Mr. Meares put to you a number of events that must happen before a flame in the nature of a wick comes on the water under the wharf? A. Yes.

Q. That is to say, dropping something on to something and combusting and so on. Do those series of questions related to the flame on the water itself, cut out the chance of the ignition from a pile, which you referred to in chief, or does the ignitability of the pile, provided something is caught there -

20

MR. MEARES: I think that is clear from the evidence.

MR. ASH: Q. Would it be possible for a piece of molten metal to hit a piece of debris or a pile, or could it light up the fire in any other way? A. If a piece of metal landed on a piece of debris which was ignitable, that will start a wick, but that is not the only way, as far as I can see, that such conditions could be created. In my experiments I did not form a wick and provide an igniting source. I, as I sometimes did in the experiments with fresh water, used a match to ignite slightly a piece of material or hessian or cotton shirt material, and then I threw it on the oil film on the water, and that immediately - not quite immediately, there was a measurable amount of time - sunk into the oil and continued to burn in part above the oil and formed a wick gradually, so it is possible for someone voluntarily or involuntarily to kick or throw a smouldering piece of cotton waste into the oil and start off a wick burning that way. It is not necessary to have a piece of cotton waste in which precisely at the particular time, the certain amount of molten material should fall.

30

40

Q. Could the vapours themselves ignite in any other way, from the facts of this case? A. I explained this question of inflammability limits. If you have a vapour in concentration with air, within the limits of inflammability you could ignite as a vapour and propagate flame, by using a hot source, and certainly you could ignite it using a source as hot as molten metal. (Objected to).

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Re-examination  
continued

10 Q. You were asked by my friend about assessing the speed of a blow from your mouth, upon a flame? A. Yes.

Q. In the tests that you conducted before coming to Court, did you have a varying or constant wind effect on the flame, to bend it over? A. I varied the conditions. I did not measure them but I varied them.

20 Q. How would you estimate the limits of the variation in speed? A. I did not attempt to. It was from a very tiny wisp to a blow which would put out the fire. It depended also on the state of the wick. If it had advanced in time, a well developed wick burning, then a very slight flame was strong enough to provide the heat to produce the combustible vapours and produce combustion.

30 Q. A Slight flame or wind? A slight wind. I carried out my experiments on a verandah, and I did not have to blow there. Conditions were sufficient to spread the flame.

Q. I want to ask you questions on the matter of emulsification, which was raised here in some of the questions. A. Yes.

Q. This may be a redundant question, but emulsification is the mixing of the water and oil? A. It is a physical mixing of oil and water with which we are all familiar. Milk is an emulsion - butter or salad dressing.

40 Q. You have, first of all, had evidence of the water under the Sheerlegs Wharf and you have seen the precise locus since. Does emulsification depend on movement to any extent? A. Yes. You have to shake things up.

Q. What degree of shaking is necessary? A. Fairly vigorous. The two liquids tend to separate themselves unless you have some sort of a stabiliser, a third body.



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Re-examination  
continued

Q. In your view would any degree, and if so what degree of emulsification be reached under a wharf with the movement that has been described to you here, in the rather deadend part of Morts Bay? A. I only saw it on one day, so I cannot speak for all conditions, but it seemed a very quiet and secluded area and there were not terribly shaky or wavy conditions; possibly a little lashing against the piles or along the rocks and pebbles on the shore. But the oil itself, as I explained earlier in answer to Mr. Meares, would tend to have this damping, quietening effect on the waters. That could readily be proved, if necessary. It is a well-established fact.

10

Q. Would that stilling effect increase with the thickness of the oil? A. Yes.

Q. And even if some emulsification took place peripherally on the oil, would the oil going out with the tide and coming in again - a substantial quantity of oil - have any effect on any small emulsification that had taken place? A. I would expect that fresh oil added to the emulsion, depending on the emulsion, in this case if you had some oil emulsified you would tend to build the fresh oil above it without emulsifying that additional oil.

20

Q. You mentioned shaking. Getting away from any artificial test of a shake, in a container, and having seen that bay and the water coming into it, would you get a stable or unstable emulsification? A. To have an emulsion stable you must have something in that emulsion to stabilise it. I cannot imagine offhand, what would act as a stabilising agent for the emulsion that could be formed under the conditions there. I could not imagine, at this stage, what particular substance would act as a stabiliser in the formation of such emulsion.

30

HIS HONOUR: Q. Does this mean that if, by some shaking as you have described it - A. Yes.

40

Q. Some oil got mixed with some water, that oil would tend to separate itself out from the water and come to the top again unless there was something to prevent it from doing that? A. That is what I mean by an unstable emulsion. It will tend to break down and separate.

MR. ASH: Q. Is what His Honour put to you the broad position? A. Yes.

Q. And even if there were some degree of emulsification under that wharf, would it be all over the place, or local or what? A. I should expect it to be rather localised within the areas where you have this violent shaking. These emulsions are very unstable and heat, of course, will break them down immediately. The application of heat would tend to break down the emulsion.

Q. Even if you get a good emulsion from what you describe as a heavy or violent shaking, do you still get a percentage of oil there?

MR. MEARES: There is no dispute.

MR. ASH: Q. Is it a large percentage of oil, or a small percentage of oil, or what? A. An emulsion means the mixing of two things.

Q. But are there any probable percentages of oil in an emulsion? A. It depends on the type of emulsion. Theoretically, if you form an oil in water emulsion and if you have a very large volume of water and a small volume of oil, you tend to form an oil in water emulsion. That means the oil is dispersed in little spheres and the water is a continuous phase. Under such conditions, theoretically it is possible to have a packing of these spheres of oil, representing about 74, I think in some cases 74.6% of the total volume.

Q. Of oil or water? A. Of oil.

Q. And that is when you do all this shaking? A. Well, under conditions of the limiting case of oil in water emulsion, or for that matter of the dispersed phase in the continuous phase.

(Witness retired)

No.12

Evidence of J. E. Hodgkiss

JOHN EDWARD HODGKISS Sworn and examined:-

MR. ASH: Q. Do you live at 7 Laird Street, Fivedock? A. 7 Liege St.

Q. And you are a boilermaker? A. Yes.

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continued

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J.E.Hodgkiss

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Examination

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J.E.Hodgkiss  
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Examination  
continued

Q. Are you retired now? A. Yes.

Q. I think you spent about 50 years in Morts Dock? A. Close to it, within 12 months.

Q. Do you remember the fire on the 1st November 1951? A. I do.

Q. I think you, on that day, were in charge of all the boilermakers of Morts Dock? A. Quite so.

Q. And some of them were on the wharf and some on the ship - ? A. That is right.

Q. "Corrimal", that was being repaired? A. Yes. 10

Q. Morts Dock had the Corrimal there doing repairs on it? A. Yes.

Q. Do you remember coming to work on the Tuesday, prior to the fire? A. Yes.

Q. And seeing some furnace oil on the water? A. Yes.

Q. Did you go along the shore side, and as you got to the Corrimal the smell of the oil fumes was very heavy? A. Quite so.

Q. Was it black? A. Yes, it was black. 20

Q. And did it extend from right along the oil works - ? A. Yes.

Q. And under the sheerlegs wharf? A. Yes.

HIS HONOUR: You used the expression "oil works", in your question. Can you identify what place is referred to there?

MR. ASH: Yes.

Q. When I said to you "Did it come from the oil works?" what was meant by "oil works"? A. Well, the oil works is where they store the oil. 30

Q. Whereabouts is that? A. That is Manevia.

Q. Manevia? A. That is Manevia Point. That is the oil works there.

Q. Whose oil works? A. Well, that is something I could not tell you.

Q. Which point do you call Manevia Point? A. It is the for'ard end of the "Corrimal" - for'ard of the ferry wharf.

Q. Past the Yeend St. ferry wharf? A. Yes. 40

Q. And was the oil on the water up against the "Corrimal"? A. Yes.

Q. And it looked like very dark oil? A. Yes.

Q. Well then, the Corrimal was moored to the wharf, was it? A. Yes.

Q. And there was a little fender down below? A. Yes, about 12 inches.

Q. About 12 inches? - A. Yes, something like that.

10 Q. That was the width of the fender? A. Yes.

Q. Between the Corrimal and the edge of the wharf? A. Yes.

Q. And that was for the men to stand up on? A. To keep it off the wharf.

Q. And when you saw the oil round there I think there were some electric welders and men using oxy acetylene torches, working for you, and they were on the wharf the day before the fire and the day previous to that? A. Yes.

20 Q. When you saw the oil did you tell the burners and the welders not to do any more burning and welding until you looked into it? A. Quite so.

Q. And did you see Mr. Parkin who is well known to you, the works manager? A. Yes.

Q. And later on in the morning, about an hour or so later, after seeing him, did you tell your men to carry on? A. I did.

30 Q. Did you carry on work on the Tuesday, Wednesday and Thursday? A. Yes.

Q. And you put the time of the fire at about a quarter to two - ? A. Half-past-one or a quarter-to-two.

Q. On the Thursday? A. Yes.

Q. And you were on the sheers wharf when it broke out? A. No; I was in the engine room when it broke out.

40 Q. When the fire broke out all the burners were working there on the wharf - is that right? A. Quite so.

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continued

Q. "I had just left a burner, and I" - I am sorry. You went aboard and walked down the port side to the engine room, is that right? A. Yes.

Q. To see one of your welders working in the engine room or down in that area? A. Yes.

Q. And someone called out to you, "Come up, she's afire"? A. Yes.

Q. I do not think you took much notice the first time, but you came up pretty smartly the second time? A. My word I did!

10

Q. And when you came up you say you could see nothing but flames? A. Quite so.

Q. "Racing along the alleyway of the deck of the Corrimal?" A. That is right.

Q. And you could not get out? A. No; I could not get out on the port side.

Q. And you went back and over the other side of the Corrimal? A. Yes.

Q. You saw the flames racing along the port side of the Corrimal and you came back? A. Yes.

20

Q. And you went back through the engine room and over the side? A. Yes.

Q. And you saw some oil alight on the starboard side, and the "Audrey-D", a lighter, was close alongside, and you got on to that? A. Yes, that is right.

HIS HONOUR: Q. Did he say on the starboard side of the Corrimal that he saw a fire.

MR. ASH: Q. What did you see burning, if anything, on the starboard side of the Corrimal? A. What did I see burning?

30

Q. On the starboard side, yes. A. When I went to go out on the port side, the flames were racing along the port side, making its way around the stern, and when I could not get through I doubled back. I had to go over the side or the flames would have caught me. I did not look to see what was burning.

Q. Were there any flames on the starboard side? A. I think myself - practically - yes, there was a little - not much.

40

Q. Not much on the starboard side? A. No, not much.

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Q. Do you know where they were coming from - the flames on the starboard side? A. Well, when she got a light, and the after-cabins were alight, the flames looked like to me that they were coming out of the cabins.

                      
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Q. At that stage? A. Yes.

Examination  
continued

10 Q. And you think that some other men got on the Audrey-D, but you have forgotten who they were? The Audry-D caught alight, and they cut her lines and let her drift.

Q. The Corrimal was burning at that stage from the bridge to right aft? A. Yes.

Q. The bridge being about midships of the Corrimal? A. Yes; close to midships.

20 MR. ASH: I think it is proper to say that there is another witness on fact sitting outside the Court, and I would think that he could obviously hear me. Perhaps it might be better to shut the door of the Court?

HIS HONOUR: Yes. (At this stage His Honour directed the door of the Court to be closed.)

MR. ASH: I do not think that there is anything in conflict up to the moment.

Q. Now, going back a bit that day, when you walked along the wharf to go on to the ship - ?

MR. MEARES: The Thursday.

30 MR. ASH: Q. The Thursday, the day of the fire - when you walked on to go aboard the ship, there was a boilermaker operating an acetylene boiler on the wharf? A. Yes.

Q. What was he doing? A. He was cutting the heads of some bolts - shipwrights.

Q. Did he have anyone with him? A. Yes; he had a man there.

40 Q. What is that burning-off procedure - could you just describe it to His Honour - burning the heads off bolts, I think you said? A. You know exactly what a bolt is, don't you?

HIS HONOUR: Yes.

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continued

WITNESS: I think that they might have been three inches or four inches long. I would not like to say for sure. They were cutting the heads of the bolts - the head part, not the screw part - over a drum of water, that is, the oxy-cutter. That was when I was passing to go on board.

HIS HONOUR: How big was the drum of water?

MR. ASH: Q. How big was the drum of water? A. Five-gallon drum, most likely.

Q. Did the oxy-cutter have any things underneath? 10  
A. What do you mean - anything underneath the drum of water?

Q. No. I was really meaning when he was oxy-cutting, was there anything else underneath?  
A. Underneath, from the sparks?

Q. Yes. A. Yes, he had a couple of sheets of iron, or something like that. That is the usual procedure when there is an oxy-cutter there, to prevent any danger.

Q. Whereabouts on the wharf was this burner in relation to the Corrimal - was he for'ard, aft or amidships? A. He was just aft of the bridge. 20

Q. Aft of the bridge? A. Yes, most likely; about three or four feet in from the edge of the wharf, something like that.

Q. And is the bridge set about midships? A. Yes, the bridge is about midships.

Q. Was there someone else using an electric welder on the wharf? A. Yes.

HIS HONOUR: Q. Ask him where that man was. 30

MR. ASH: Q. Where was that man - an electric welder - working, that you spoke of? A. Well, there was more than one electric welder - either working on the crosstrees or the doubling plates on the mast.

Q. What is a doubling plate? A. Well, the doubling plate - if there is a weakness at all on the mast they put another plate over the top of it. It might run 6-feet or it might run 8-feet, and half way round. 40

Q. Where was the mast itself? A. The mast itself most likely ran from about midships of the Corrimal to aft.

Q. It was along the wharf? A. Yes, along the wharf.

Q. Whereabouts were one or more of these welders working? Were they working up the midships end of the mast, or aft? A. They were working practically up the midships end of the mast or aft.

Q. There was more than one of them? A. Yes.

10 Q. In addition to that, did you have some welding men or oxy men that were under you, that were on the Corrimal? A. Yes.

Q. And do you know where some of those men - the welders or oxy men - that were on the Corrimal - do you know whereabouts on the Corrimal they were? A. Yes; they were working most likely round about the engine room - aft. (The words "most likely" objected to)

HIS HONOUR: Get him to try to say whether he saw them and where were they.

20 MR. ASH: Q. It is a long time ago, but are you able to say, to the best of your recollection where they were - not where they might be. Take your time - tell us where one or more of those welders on the ship would be? A. Well, one was working in the engine room, and I think there was another one working down the coal patch aft, and I think myself there was another one working on the hatch division.

30 Q. Whereabouts would that be? A. That would be aft of the bridge.

Q. On the deck or below? A. He would be about level with the deck.

Q. Was it a steel or wooden deck? A. A steel deck.

40 Q. Was any man working down at the crew's quarters, aft of the ship? A. There were other trades, I would think, that were working there. That does not matter. However, there was a fair bit of welding and oxy work - ? (Objected to).

HIS HONOUR: You had better put it in another form.

MR. ASH: Q. Did you see the Corrimal after the fire had died down a bit? A. My word I did.

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Q. What was the side like? The side that had been near the wharf? A. Well, it was just corrugated right along the ship.

Q. What do you mean by "corrugated"? A. Well, do you know what a sheet of corrugated iron is?

Q. Yes. A. The flanges of the ship, it did not seem to affect them much, but the plates in between, they just waved in and out.

HIS HONOUR: Did that go right along the side of the ship or only part of it? 10

MR. ASH: Q. His Honour wants to know did that go right along the side of the ship, or only part of it? A. It went midships to aft.

Q. Did you see any smoke after you first saw the flames? You said you saw a lot of flames earlier. Did you see any smoke either then or later? A. After?

Q. Well, about the same time or straight after or - ?

MR. MEARES: You can lead him on smoke. 20

MR. ASH: Q. When you saw the fire there was also a deep black smoke? A. My word, yes.

Q. Now I want to ask you some further questions. When you saw this oil, you saw that it was thick and black? A. Yes.

Q. Do you remember throwing anything over, yourself? A. I remember picking up a bit of concrete, most likely a bit smaller than that. (Indicating). I just threw it over the side.

Q. What happened when you threw it over the side? A. When it hit the oil, it was just like seeing it go into sloppy cement; it just like bubbled a bit, and I knew that was very thick. That was what made me go up to Mr. Parkin. 30

MR. ASH: The witness points to an old door handle which is in the inkwell hole of the witness box.

Q. We were just identifying what you had said? A. Yes.

Q. Before the fire what was the position about the planks of the wharf? Were they all close up, or what? A. No; that sheer wharf, most likely, a couple of years before the fire - it might be more - was all new timber - green timber - and as 40

she dried out she shrank and left spaces most likely half-an-inch or most likely  $\frac{3}{4}$ -inch.

Q. You have seen oil on water before, during your 50 years? A. Yes.

Q. Have you ever seen oil as thick as that? A. No, never in my life.

Q. After 50 years at Morts, I would like you to tell me something about the way operations went on, particularly round about that time.

10 When a ship was being repaired, was there any debris about the harbour there, under the wharf - do you remember? Waste stuff floating, I mean.

A. Well, Morts Dock Bay - you see the tide running in and out and you see timber and so forth floating backwards and forwards, and if there are men working there there might be a bit of waste, or a bit of bagging thrown away - they might clean their hands off, or something like that.

20 Q. Have you seen that being done -- waste thrown over the side? A. I have seen it.

Q. And as regards the oxy welders and the electric welders - I only want you to tell me what you have seen there - do the mats underneath catch all the sparks, or do some go past? A. Oh, some get past, you know. You cannot catch them all -- you cannot catch them all.

30 Q. As regards these mats, are they always, every minute, under the oxy welders, or are there times when they move? or are called away or anything like that, when they might weld without them? (Objected to; pressed; argument ensued.)

HIS HONOUR: I think I should allow it. I have doubts as to whether ultimately it will prove relevant to the case. I think I should admit it.

40 MR. ASH: Q. The question I was asking you is this. His Honour was discussing some general matters - the question I asked you was, - Do the men, and I am speaking of the time round about and before this fire in 1961, - your knowledge of the general way of conduct at that stage - do the burners and the welders - the burners - do the oxy-men always have the mat or iron under them when they are working,

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or do occasions arise when they move without them or are called away and in fact come back and work without them - on occasions? A. I have seen it happen.

HIS HONOUR: Q. Would you say that you saw it happen often?

MR. ASH: Q. His Honour says would you say you saw that happen often? A. I would not say "often", but I have seen it happen. I would not say "often".

Q. And what has it been due to when you have seen it, or perhaps you do not know? Is it because the man is not there, or something has happened? Have you seen why that it came about that they work without their mats? A. Well, with workmen that are working burning the heads off those bolts - well, someone might want something done; it might be a piece of plate, 12 inches wide or something like that, cut through, and he would just walk along with his cutter and cut that through.

10

Q. Walk along to the place where the other man was and then come back? A. Yes.

20

Q. You have seen that happen? A. Yes.

Q. But have you ever seen men not called away - just for 5 minutes or 10 minutes - have you seen men working without mats underneath them?

A. They only put them underneath them where they think there is any danger. It all depends what is underneath them. When they are working on a wooden wharf they are supposed to have something underneath them.

30

Q. They are supposed to, but do they sometimes work without mats underneath? A. It might be a small job and they might just have a tin of water there.

Q. Not the mat? A. Yes; I have seen it in small jobs; I have seen that.

Q. I do not know whether you told me - I got on to another subject about this debris - you mentioned cotton waste and bits of wood, I think you mentioned those two? A. Yes.

40

Q. Have you seen other bits - type of debris - paper, cloth? A. What do you mean? Have I seen anything like that floating around on the water?

Q. Yes. A. Yes; I have seen - I have looked over the side at times and seen bits of wood and a bit of waste might be floating on it, or a bit of bag or something like that.

Q. That has been your experience throughout your time? A. Yes.

CROSS-EXAMINED:

MR. HOLLAND: Q. Can you hear me? A. I beg your pardon?

10 Q. Can you hear me now? A. Yes.

Q. I just want to ask you a few questions about the evidence you have given. Do you understand? A. Yes.

Q. You say that you have seen bits of wood floating about in Morts Bay? A. Yes, I have seen many floating around Morts Bay.

20 Q. And you have even seen bits of waste floating around on top of bits of wood? A. Yes; I have seen a bit of waste floating around on top of a bit of wood.

Q. And you have remembered that? A. I have seen it.

Q. Very often? A. Not every bit of wood that you see floating around has a bit of waste, but you see a bit of wood floating around, and somebody might throw a bit of waste over the side like that, and it might land on a piece of wood.

Q. It could? A. Yes.

30 Q. And you have seen it? A. Yes.

Q. Have you heard how it was suggested that this fire started, that damaged Morts Dock and the Corrimal? A. How it started?

Q. Are you interested in how it started? A. Yes.

Q. Did you hear how it was suggested that it was started - by a piece of burning cotton waste, floating on a piece of wood? A. Yes.

40 Q. Did anyone suggest that to you as the cause of the fire? A. Yes.

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Cross-  
examination  
continued

Q. Who was it? A. I cannot think of the name; it is such a long while ago. He passed a remark to me that he happened to look down and he saw some waste? (Objected to: objection withdrawn).

Q. You have heard about the evidence that was given in the case apart from your own evidence, on the last occasion, did you not? A. Will you explain that again to me?

Q. You heard of the evidence that was given in the last case to explain this fire? A. No. 10

Q. You did not? A. No.

Q. At all events, before you gave your evidence today, did you believe that this fire started by a piece of waste, floating on a raft some time? A. I never see it myself, but most likely it could happen.

Q. I know it is a long time, but you never gave any evidence on the last occasion, did you, about debris consisting of pieces of waste, floating on rafts? A. I do not think I mentioned that, the last time I was in Court - about pieces of wood and pieces of waste floating around. 20

Q. And I put it to you that until you heard about a piece of waste on a raft being alleged to be the cause of the fire, it never occurred to you that such a thing occurred? A. I never see it. I have only gone on hearsay. - by hearsay.

Q. And are you not assuming that because it happened once, that sort of thing happened frequently? A. Frequently? 30

Q. Yes; it is an assumption that you are making, is it not? A. I could not say that it happened frequently.

Q. Do you swear that you ever seen a piece of waste floating on a piece of wood in Morts Dock? A. Yes, I have; and I have seen it alight.

Q. You have seen it alight? A. I have seen a bit of waste alight on a piece of wood.

Q. You have? A. Yes.

Q. When did you see that? A. Through the long number of years I have been in Morts Dock. I could not say what month and what year and so forth; but I have seen it. 40

Q. You have. A. I have seen it.

Q. Why did you not tell that to Mr. Ash?  
A. I was not asked. If Mr. Ash had asked me about that, I would have told him.

Q. You have seen solicitors, I suppose, who asked you what you had seen on this day - on a number of occasions - have you not? A. Do you mean this case now, or before?

10 Q. Both cases? A. I would not like to say for sure. I would not like to say for sure that I mentioned it in the last case, and it was not mentioned to me this time at all.

Q. And do you say that they were not interested in what sort of debris came around or what, in your experience, you had seen? A. What was that again?

20 Q. You knew that they were interested in what kind of debris was in Morts Bay? You knew that? A. I did not know until they just asked me had I ever seen anything floating - bits of wood and so forth - and I would say "Yes; over the years I have seen many a piece of wood".

Q. On more than one occasion? A. On dozens of occasions -

30 Q. On more than one occasion you have been asked to describe the kind of debris you have seen in Morts Bay? I will put it again. Before you gave your evidence today, you have been asked on more than one occasion about the kind of debris you have seen in Morts Bay, have you not? A. In the last case.

Q. In any case. A. This case or before?

Q. Both. You have been asked? A. I am not going to say I was asked the last case; but this case I have been asked.

Q. And I take it you told them everything you could think of? A. Yes, I answered everything anybody asked.

40 Q. But you did not tell them that you had seen burning waste on a raft, did you? A. No, I do not think I did.

Q. And you thought that would be very significant, I suppose? A. It all depended on what they asked me. If they asked me before had I seen it,

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Cross-  
examination  
continued

I would have told them that I had seen it in the number of years I had been there.

Q. But they did not ask you that? A. They did not ask me that.

Q. What about this stone or piece of concrete that you say you threw in the water? A. Yes, a piece of concrete.

Q. Would you hold up that door knob (indicating).  
A. Yes. (Witness holds up doorknob).

Q. Would it be about that size? A. It would be about that size - it would be close to it. 10

Q. You remember it being about that size?  
A. Something like that. It would be no bigger.

Q. There is a large surface - namely, the handle you would turn - and there is a smaller surface, that I am showing you - the part that would be attached to the door.

Q. Now which surface are you talking about as to size? A. Well, I would say that piece (indicating) 20

Q. You are talking about the larger of the two surfaces? A. Yes.

Q. This piece that you put your hand around to open the door? A. Yes.

Q. You have a clear recollection of doing this, have you? A. Yes.

Q. Where were you standing when you threw this piece of concrete - A. Most likely -

Q. Never mind about "most likely". Do you remember or not? A. Of course I remember; 12 inches from the edge of the wharf. 30

Q. 12 inches in from the edge of the sheer legs wharf? A. Yes.

Q. And whereabouts on the wharf in relation to the Yeend St. end - A. It would be on the after-end of the bridge of the Corrimal.

Q. You mean on the wharf opposite the after-end of the bridge of the Corrimal? A. Yes, there is a fender along the wharf and the Corrimal; and I just threw it down like that (indicating), between the Corrimal and the fender. 40

Q. And where was this piece of concrete before you threw it down? A. It was lying on the sheerlegs wharf.

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Q. And you have no doubt that it was a piece of concrete? A. Yes, it was a piece of concrete I would say it was concrete, anyhow.

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Q. Do you remember? A. Yes. It was a bit of concrete, something out of a galley floor, most likely.

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10 Q. Just a piece lying on the wharf? A. Yes, a piece that had been lying on the wharf.

Cross-  
examination  
continued

Q. And did it feel heavy in your hand? A. It would not be as heavy as that - that is heavy - it would not be as heavy as that.

Q. And how was the tide at the time - was it in or out?

MR. ASH: When?

MR. HOLLAND: Q. When you threw it in? A. The tide?

20 Q. Yes. A. That is something I could not tell you.

Q. Well, what time of the day was it? A. Somewhere about half past 8, most likely.

Q. In the morning? A. Yes, close to half past eight on Tuesday morning.

Q. Do you remember, on the occasion of the first case - the Morts Dock case - against the owners of the "Wagon Mound"? Do you remember the last case in which you gave evidence? A. Yes.

30 Q. You made a statement then, did you, for the solicitors who were acting for Morts Dock? A. I made a statement? What was the statement I made?

Q. I am asking you did you make one? A. No more than what I made here today.

Q. You made no statement in writing? A. No; I made nothing in writing.

Q. Did you interview those solicitors? A. Yes, I did.

40 Q. And I suppose you saw the barrister engaged in the case, did you? A. I saw the barrister before the case.



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Cross-  
examination  
continued

Q. Just tell me if this is right - "On the Tuesday after leaving the boilermakers' shop I went across to the sheerlegs' wharf, where the Corrimal was under repair"? Is that right?

A. That is quite so.

Q. "and I could smell a strong smell which was very similar to petrol"? A. Yes.

Q. Does that sound to you like what you told the solicitors and the barrister in the last case?

A. Yes.

10

Q. Did you go on and say this - "I then looked at the water and saw a very thick black coat of oil all round the sheerlegs wharf"? A. Yes.

Q. And that oil was very dark, was it not?  
A. Yes; that is what made me, when I saw that oil and the fumes -

Q. Did you go on and say this - "I picked up a small stone and threw it into the water"? A. I never said "stone". I said "a piece of concrete".

Q. "A piece of concrete"? A. "A piece of concrete".<sup>20</sup>  
You can say "stone" if you wish to.

Q. I want to know what you said. A. Well, we will say "A piece of concrete".

Q. You will stick to "a piece of concrete"?  
A. Yes.

Q. Do you think you might have said you picked up a small stone? A. No, I do not remember "a small stone" - "a piece of concrete".

Q. However, you did tell the people whom you saw about this case, about this incident?  
A. Did I tell anybody?

30

Q. You did tell them about throwing this into the water? A. The only man I spoke to about it was Mr. Parkin.

Q. But you have just told me that you did see the solicitors and you did see the barrister engaged in the case? A. Yes; most likely I have told them - I may have.

Q. And did you say this, "The stone remained on the top of the oil momentarily, and then gradually sunk through the oil into the water"? Is that what you said? A. The oil was that thick on the top of the water -  
40

Q. Is that what you said? A. The oil was that thick on top of the water -

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Q. Will you answer my question - is that what you told them. "The stone remained on top of the oil momentarily, and then gradually sunk through the oil into the water"? A. Momentarily?

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Q. Yes. A. Most likely it hit the water -

Q. Just consider the question you are being asked. I am asking you is that what you said?

10 A. I am not going to say that it stopped there any length of time at all. The oil was that thick that as soon as it landed on the oil, the oil just raised itself most likely about two or three inches. I saw the way it raised; it was thick oil.

Cross-  
examination  
continued

Q. Is there any reason why you cannot answer my question? Why cannot you answer my question?

A. Well, it was no time at all - just a second, you see. Would that be near enough for you?

20 HIS HONOUR: The witness keeps speaking about the facts, not about the statement he made.

MR. HOLLAND: Q. One more thing - did you say this-? "The stone was slightly bigger than an ordinary marble"? A. An ordinary marble?

Q. Yes. A. I told you.

Q. Just a minute. Did you say this to the solicitors and the barrister who saw you before you gave evidence in the last case? A. No.

30 Q. Will you swear you did not? A. I am not going to take my oath that way because it is a number of years ago. I don't not think I mentioned anything about marbles.

Q. You do not? A. I do not think so.

Q. Do you remember being asked to compare the size of this thing with something? A. I am not going to say for sure.

40 Q. Do you think now that it may have been a stone or a piece of concrete slightly bigger than the ordinary marble? A. It was bigger than an ordinary marble. It would have been that size (indicating).

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Cross-  
Examination  
continued

Q. That is what you have told us today. Back in 1958 before you gave evidence -- you said some thing different. That is what I am putting to you. A. I cannot say that I mentioned a piece as big as a marble. I am not going to say that.

Q. You won't swear you said that? A. I won't swear I said that.

Q. Will you swear you did not say it? A. I think I would swear that I did not say it, but it is a long time ago. It is 12 years. 10

Q. But you are not sure, are you? A. I am not too sure on that.

(Luncheon adjournment).

AT 2 P.M.

MR. HOLLAND: Q. I want to ask you about the men who were working on the sheerlegs wharf on the Thursday, the day of the fire - do you understand? A. You have gone back now some - you have gone back 12 years now.

Q. Just a moment. You were asked about this in the first "Wagon Mound" case, were you not? A. I beg your pardon again? 20

Q. You were asked about this in the first "Wagon Mound" case? A. I may have been.

Q. Do you recall giving evidence about where these men were? A. I may have.

Q. First of all, where were you when the fire broke out? Were you on the wharf or in the ship? A. I was in the engine room.

Q. In the engine room of the ship? A. Yes. 30

Q. And the first you knew about a fire was when somebody called out - ? A. Yes.

Q. "There's a fire"? A. I think McKinnon, if I am not mistaken - just called out to me.

Q. I think you were asked this question on the previous occasion. "I want you to come back, if you will, to that day when you walked along down the wharf to go on to the ship"? A. Yes.

Q. "You said you saw the acetylene burner?" and your answer was, "Yes, there was a boilermaker operating the burner"? A. Yes. 40

Q. "He was burning the heads off bolts for the shipwright"? A. Yes.

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Q. "And he had an assistant holding the bolt"?  
A. Yes.

            
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Q. "He was burning them off into a four or five gallon tin of water"? A. Yes, something like that - four or five gallons.

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Q. What was that man's name, do you remember?  
A. The burner?

Cross-  
examination  
continued

10 Q. Yes. A. Godfrey.

Q. Mr. Godfrey? A. Yes.

Q. And you said that he had a couple of sheets of galvanised iron, and wet bags and a tin of water? A. Yes.

Q. And you said "We always take precautions"?  
A. Take all precautions yes.

Q. And that is correct, is it? A. Yes; they take all the precautions when they think there is any danger.

20 Q. Just a moment. This is what you were asked. "Did you notice what he had there"? and was your answer "Yes, he had - we always take precautions. He had a couple of sheets of galvanised iron"? Is that what you said? A. I believe that is what I did say, too.

Q. And that is the truth? A. Yes.

30 Q. So that it is true to say that you always take these precautions of the galvanised iron and the bags and the water when there is burning-off or welding? A. Yes; that is their work, yes.

Q. You agree? A. Yes. (Objected to; pressed; argument ensued.)

40 Q. Would the welder, who was just welding and not burning - would he have a tin of water with him? A. The welder, no. He very seldom carries a tin of water, a welder, but if there is any danger at all anywhere, if there is any slag coming from the welder, most likely they would put something down - whenever they think there is any danger of anything. An electric welder and a burner - oxy - are two different -

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Cross-  
examination  
continued

Q. I think we appreciate the difference. But these precautions are taken in the welder's own interest? A. Yes, but they do get a little bit careless, most likely, at times.

Q. But not very often? A. Not very often, no.

Q. You said that on a very small job, they might go away from where these precautions are taken, when they consider there is no element of danger? A. Yes, but this was different altogether.

Q. You were asked was anybody using the electric welding on the wharf, as you recollect, as you went down past there to go on the ship that day, and your answer was "Yes, a boilermaker, a Mr. Kennett"? A. Mr. Kennett, yes. 10

Q. Was that correct? A. That was quite so.

Q. Where was he working? A. I had an idea he was welding one of the doubling plates on the mast.

Q. You were asked where he was welding - ?  
A. I won't say whether it was one of the doubling plates or the cross-trees, but he was welding on the mast at the time. 20

Q. But did you say this, when you were asked where he was welding - you said - "Most likely he would be down here", and you indicated, and you were asked "On the after-end of the ship?" and you said "Yes"? A. I said that he was welding on the after-end of the ship?

Q. Yes; that is what I was putting to you, that you said, "On the after-end of the ship, yes"?

A. On the after-end of the ship - ? 30

Q. Did you mean that he was welding on the wharf towards the after-end of the ship? A. That is correct.

Q. Would that be correct? A. Yes.

Q. And were you asked this, "Were there any other welders working on the wharf when you came along to go on to the ship?" and did you say "There was one welder and one burner". The welder was working on the slip end of the wharf and the burner was working about midships on the wharf"?  
A. And Kennett was working on the mast, to recollection. I cannot recollect any more. 40

Q. And that evidence was correct, was it?  
A. You are taking me back 12 years -

Q. I appreciate that, but I am putting to you that this is what you said? A. I do not want to turn around to you and say "Yes" -

Q. I am putting to you that this is what you said when you gave evidence in the first place? A. Well, we will let it go at that.

10 Q. So that there will be no mistake about it, you were asked, "There was one welder and one burner. The welder was working on the slip end of the wharf and the burner was working about midships on the wharf"? A. We will let it go at that.

Q. Would you agree that that is correct? A. I would not like to say that is correct. It is over 12 years, you see -

Q. Just a moment. Will you agree that the evidence you gave on the last occasion was the truth? A. I would say so.

HIS HONOUR: What is mean by the "slip end"?

20 MR. HOLLAND: Q. His Honour asked what is meant by the "slip end" of the wharf? A. The slip end of the wharf - there are two slipways for taking boats up for repairs.

Q. Is that the opposite end of the wharf to the Yeend St. end? A. The opposite end of the wharf from Yeend St.

HIS HONOUR: I thought that that was what he meant, but I thought it better to make sure.

30 MR. HOLLAND: Q. And you were asked what was going on along the port side of the Corrimal - what were the Morts Dock men doing, and did you say "The burner was doing hatch beams"? A. Yes.

Q. Was that correct? A. Yes.

Q. That was the man on the vessel. The burner was using the oxy-acetylene torch? A. Yes.

Q. And you were asked where he was operating, and did you say that he was operating on the after-end of the bridge, did you say that?

40 A. He was operating on the after-end of the bridge.

Q. And his name was Stuart? A. Stuart.

Q. That is correct, is it? A. Yes, Stuart.

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continued

Q. That is quite correct, is it? A. Yes.

Q. And you were asked whether there was anybody else using any welding or burning gear on the upper end of the ship before you went down below, and you said "A welder named Taylor"? A. Taylor is a welder, yes.

Q. And he was working also on the upper deck of the ship? A. Yes.

Q. And did you say "I think he was walking round about the crews' quarters, aft"? A. That is what I think. 10

Q. "I would not say for sure, but I think that was where he was, towards the crews' quarters, aft"? A. Yes.

Q. And then were you asked later on "Was there anybody else apart from Taylor and Stuart using any burning gear on the deck"? and your answer was "No, not at that time"? A. Yes.

Q. Was that correct? A. Yes.

Q. Now you were also asked about what happened to the plates of the Corrimal? A. Yes. 20

Q. And you said that they were buckled, I think? A. Yes; they were all buckled.

Q. And that was down at the - ? A. From the bridge, aft.

Q. From the bridge, aft? A. From the bridge, aft.

Q. And you were asked how that would happen? A. Yes.

Q. And did you say "It is the sudden heat and then water being put on it"? A. Yes. Firemen were playing water on to the fire and on to the plates; well, that caused the plates to buckle. That was my opinion. 30

Q. You were, I think, the leading hand in charge of these men? A. Yes, I was in charge of the job - the boilermaker part.

Q. You have told us today that you have observed, on occasions, pieces of waste being thrown overboard into the water? A. Over a number of years, I have seen it, yes. 40

Q. But there are provided bins, are there not, for the men to put their waste in - is not that true? A. Did I say that there are bins there for us to put it in? Is that what you mean?

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Q. I am not asking you whether you said it. I am asking you whether that is the fact? A. I would not like to say that, no.

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Q. Have you seen it? A. I would not like to say that there are bins to throw any waste in.

Cross-  
examination  
continued

10 Q. No receptacles provided? A. No, I do not know.

Q. You do not know one way or the other?  
A. No; I have never been on a repair job where there are special bins to place waste in or anything like that - not a big job like the Corrimal.

Q. And I suppose if you saw any of the burners or welders walking away with any waste you would not approve of it? A. No.

20 Q. And you would not approve of them either, would you, throwing cotton waste overboard?  
A. If they threw a piece of cotton waste over - there might be a bit of cotton waste lying on the deck - and if there are sparks it might catch alight, and a man is just likely to pick it up and throw it over.

Q. You would approve of that, would you?  
A. You would just close your eyes to it.

30 Q. You would just close your eyes to it?  
A. You would just close your eyes to it.  
There are a terrible lot of things -

Q. You would just close your eyes to it, but you would not approve of it, would you? A. No, you would not approve of it - certainly you would not.

RE-EXAMINED:

Re-examination

MR. ASH: Q. You were saying this to Mr. Holland, that there are a terrible lot of things that the boilermakers - and he interrupted you. What were you going to say? (Objected to).

40 HIS HONOUR: I do not know that you could have that.



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Examination

MR. ASH: Q. There is just one other thing. The four men you mentioned, Taylor, Kennett, Stuart and Godfrey, were they all boilermakers? A. Yes.

Q. Your men? A. Yes.

(Witness retired).

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Evidence of T. Houghey

THOMAS HOUGHEY Sworn and examined:-

MR. ASH: Q. Can you hear me? A. Yes.

Q. Where do you live? A. 12 Booth Street, Balmain. 10

Q. And have you been a boilermaker nearly all your life? A. Yes, I will say yes.

Q. Where did you start? A. Where did I start?

Q. Yes. A. The North British Locomotive Combine, Glasgow.

Q. At Glasgow on the Clyde? A. On the Clyde, yes.

Q. And you came to Australia 1927? A. May 1927.

Q. And you went to Morts Dock for a couple of years then? A. That was my first job in Australia. 20

Q. And then I think you were a foreman in the Gas Light Co.? A. The North Shore.

Q. And then you went back to Morts for five or six years? A. Around the waterfront, yes.

Q. And then you went to various other places? A. Yes; on the waterfront all the time.

Q. You went to Cockatoo Dock for a while? A. Yes.

Q. About how long? A. The first time?

Q. You went more than once to Cockatoo? A. Yes. 30

Q. And you were back with Morts Dock for about two years before the fire on the 21st November 1951? A. Yes, back about two years before the fire.

Q. And were you working there on the wharf the day of the fire? A. I was.

Q. You were what they call a marker? A. A marker-off, yes.

Q. What does a marker-off do? A. Well, it is all shop work, and you lay the job out for the boilermaker to come along and pick it up and go along and do it.

Q. Do you remember seeing before the fire started and beforehand - did you see any oil on the water underneath? A. Oh yes, you could smell it. You did not need to see it.

Q. What did it look like? What colour was it, and was it thick? A. It was thick all right. Like a rainbow colour with big black snakes through it.

Q. What colour was it? A. The colour?

HIS HONOUR: He said a rainbow colour.

MR. ASH: Q. Yes. A. If you were looking at it straight on it was a sort of rainbow colour. If you looked at the water where it left the tracks on the piles it was black and it stank - it was on the nose.

Q. Did it go up and down with the tide or not? A. My word! That was what we were watching.

Q. The Corrimal was tied up to the side with a little fender in between - is that right? A. Yes.

Q. Were you working on the wharf when the fire started? A. Well, I got the first flame, I think.

Q. What was the first you saw of the fire? A. Well, that spark coming down on the water there. Just a little drop. It went round and round and came to the pile and went 'shsh', and the flames ran up the pile.

Q. Did you see anything on the water? A. All the debris there.

Q. Yes, but did you see any flame at any stage? A. No; that was the first I saw.

Q. What? A. The one that I told you about.

Q. I want to know about that one. Did you see anything on the water? A. Oh well, on the water there was nothing there but - well, I would say the oil and the gas.

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Examination  
continued

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Examination  
continued

Q. Did you see any flame - any burning on the water at any stage? A. No, not till such time as that little thing happened. It was a flame.

Q. I do not mean before the fire started - but did you - ? A. No.

Q. Later on did you see something on the water - a flame? Did you see anything near a pile? (Objected to). A. Oh well - (Objected to). I will tell you, as far as that was concerned, what I saw. I thought it was a spark that came down from above. That is what I saw, and it hit the water, and my mate was cleaning my job. Well, I was standing there, and that little spark went like that (indicating). It just increased and increased, and it was coming towards the pile, and when it came to the pile then I saw a flame - then I saw a flame - is that what you mean? 10

Q. Well, I do not know. I want you to tell us. It came towards the pile and then you saw a flame? A. Yes. 20

Q. What happened when you saw the flame on the pile? A. Well, I said to my mate, "Jack, what have we come into?" Well, I could not run into the shop because the flame was coming up that way (indicating).

Q. You saw the flame on the pile? A. Yes.

Q. What happened to the flame on the pile? A. It came up like that (indicating), and I was working here (indicating).

Q. Where is "here"? A. On the wharf. 30

Q. Whereabouts were you working? A. Midships of the Corrimal - say midships or very nearly.

Q. On the wharf? A. Yes.

Q. Whereabouts on the wharf were you in relation to that pile you spoke of? A. Oh well I would not be two feet off the edge of the wharf.

Q. Two feet from the edge of the wharf? A. Yes, and then I had my bench there (indicating), and that would take up about 5 or 6 ft. from the edge of the wharf, and my job was on top of that. 40

Q. How far was the pile you were talking about from where you were standing? A. Well, the pile would be about 12 inches wide - 12 inches deep - and I was standing there (indicating) - about a shoe's length or something like that.

Q. About a shoe's length away from the pile?  
A. Yes.

Q. And did you look down into the water? Did you look over? A. My oath I did!

Q. How did the flame come up the pile? A. It must have come up the pile - (objected to).

Q. Did you see the flame on the pile at all?  
A. No, I never saw the flame on the pile. I saw the fire there (indicating).

10 Q. The fire? A. The fire.

Q. When was the fire when you first saw it?  
A. It came up against the pile.

Q. From where? Where was the fire? A. From the water - from the oil.

Q. And was the fire moving then when you first saw it? A. It was spreading.

Q. Did you see it come up against the pile?  
A. It did, it came to the pile.

20 Q. Did you see that? A. Yes, I saw it. The flame was a little - it was not a flame; it was burning - a burning substance - you understand what I mean?

Q. Yes. How far from the pile was this burning substance? A. It was a little burning substance between the pile and the Corrimal.

Q. How far was the burning substance from the pile when you first saw it? A. Well, the fire was actually on the edge of the wharf, and from there I would say about that much (indicating).

30 MR. ASH: Would you agree about 18 inches?

WITNESS: That is what I saw when I saw the spark from above.

MR. ASH: Q. And how was it burning when you first saw it? A. Well, have you seen a match?

Q. Yes. A. A little flame?

Q. Yes. A. It was just like that, but I could see it was alight.

Q. You could see it was alight? A. Yes.

40 Q. How did it spread? A. Round about that way (indicating).

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Examination  
continued

Q. Increased the circle? A. Yes, you can say that - increased the circle.

Q. Then it came up next to the pile? A. Yes.

HIS HONOUR: What happened next?

MR. ASH: Q. What happened next after this flame had reached the pile? A. Well, I got the shock of my life. On the wharf were about 10-inch planks and there were about two inch spaces between the planks, and I was standing there. (Indicating). My bench would be about there (indicating), and this was the wharf. It went up between that first pile - 'shsh' -

10

Q. What? A. The flames.

Q. What happened then? A. Well, I said to Jack "We will have to do it now." I could not go that way because the flame was going that way - (indicating).

Q. Where was that? A. Towards the shop.

Q. But where was that? A. The slipway end of the wharf. I could not run that way, and if I ran that way -

20

Q. The Yeend St. end? A. Yes.

Q. Why couldn't you run that way? A. That was where the oil was coming from.

Q. Why do you say that? A. That was the oil company.

Q. Well, which way did you run? A. Well, I said to Jack "What will we do?" (Objected to).

Q. Well, what did you do? A. I could not go that way (indicating) and I could not go that way (indicating), so I went over a fence.

30

Q. At the back of the wharf? A. Yes, correct.

Q. Did you see what was happening on the wharf and the ship? A. When the fire brigade came down we stood up on the fence and watched them, and then the fire floats came up and then we walked right round.

Q. But what did you see when you were waiting for the Fire Brigade? A. I never saw flames like them.

40

Q. Were they big flames? A. No; up in the air - 'shsh' (indicating).

Q. High flames? A. Yes; what I would say was the gas, because I know - (objected to).

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HIS HONOUR: Do not worry about that.

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MR. ASH: Q. You watched the flames then? A. Yes.

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Q. Later on the Fire Brigade came? A. The Fire Brigade came down right away; they came in the back gate.

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Q. During your time at Morts Dock - ? A. Yes. I worked several times there.

Examination  
continued

10 Q. All the times you were there, take the two years before the fire that you were there? A. Yes.

Q. You mentioned, earlier, do you remember - did you ever see any debris under Morts Wharf - the sheerlegs wharf? A. All the time. All the time.

Q. What type of debris? A. Well, every kind of debris. I would say joiners' shavings, black paper that we used for making watertight jobs.

20 Q. What sort of black paper was that? A. Tar. Oil waste -

Q. What sort of waste? A. Oil waste - what I clean my hands with - and we shot it overboard.

Q. Did you ever throw, or see any man throw, cotton waste overboard? A. I have done it myself.

Q. During the years you were at Morts Dock, was that done sometimes, often, or what? (Objected to; admitted). A. All the time.

30 Q. And during the time you were at Morts Dock, what was the position about the debris that you have described. Was it there sometimes, often or all the time or what? A. It was there all the time. Even the kids used to come up with the little boats and pick up the floating wood, and take it away in the little boats, for firewood.

Q. Under the wharf? A. Yes.

40 Q. The sheerlegs wharf? A. Yes, and they did a little bit of fishing while they were at it; every day - after school hours.

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Examination  
continued

Q. And what sort of wood did you see there?  
You mentioned wood among the debris. What sort  
of wood did you see? A. Well, I do not think I  
could define that as far as wood, but there would  
be plenty of carpenters' shavings and such like.

Q. What sort of wood did the children take away?  
A. Nothing but the longest parts - they left the  
little parts there and took the long parts.

Q. You have seen oxy welding and oxy torch  
cutting - have you see that operation? A. Yes, 10  
many, many times.

Q. Have you seen that done on wharves? A. Yes,  
I have seen it done on wharves.

Q. And have you seen it done on ships? A. Yes.

Q. Did you ever go on at Morts Dock during the  
year or two that you were there and see it done  
on the wharf? A. Yes; always. It is easy to do  
it on the wharf than cart it away over to the shop.

Q. And did the men have mats or iron or anything  
underneath them - the oxy burners? A. Well, they 20  
were supposed to put sheets down, but I would not  
say it was carried out all the time. Do you see  
what I mean?

Q. Yes. A. I am not condemning any burner for  
doing that.

Q. And what about the sparks from the oxy torches  
and the electric welders - where did they go?  
A. Well, they were working on a wharf - there was  
a two inch space between the planks, I would say.  
Well, the sparks would go through, wouldn't they? 30

Q. Yes, whatever you say. A. But there was  
nothing on the wharf bar me.

Q. And did you see any welders near the ship -  
electric welders? A. On the ship.

Q. Where was that? A. That was right up at the  
top of the deck house.

Q. Of the Corrimal? A. Of the Corrimal, yes.  
They were making an alteration in the deck house,  
to fetch in with the conditions - it was going to  
be a collier then, and they were altering it and 40  
doing everything like that, and there were a lot  
of alterations on the deckhouse then, and it was  
on that top corner towards the wharf - well, I  
could not tell you whether the ship was looking

forward or aft. I could not tell you that. I could not say whether it was port side or starboard side.

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Q. Do you know the man's name? A. The welder?

Q. Yes. A. I think his name was Bill Taylor. I am almost sure of it.

Q. He was one of your workmates, was he?  
A. Yes, a mate of mine. As a matter of fact he has been at Cockatoo with me lately.

Examination  
continued

10 Q. Was there a mast on the wharf? A. There was a mast there. They had been working days previous to the fire. A gentleman was working on that mast.

Q. What was his name? A. Jack Mitchell - old Jack Mitchell - an elderly gentleman. He had done all the furnace work before, and they took him back from the wharf to do the furnace. He would be about a week on the furnace to do the job.

Q. You say that you were on the Clyde River at Glasgow, in your early days? A. The River Clyde?

20 Q. Yes. A. Yes.

Q. And you have mentioned about debris in Morts Dock? Did you see any debris in the River Clyde when you were working on the docks? (Objected to; pressed; admitted).

Q. When you were on the Clyde there - (Objected to: admitted.)

HIS HONOUR: I will allow an obvious thing to be proved in this instance.

30 MR. ASH: Q. Were you engaged in ship repair work and that type of work on the Clyde? A. Oh yes, yes.

Q. And were oxy torches and electric welders used? A. Yes, but not so much as what they are used today.

Q. Well, were they used? They were used?  
A. Oh yes, oh yes, yes.

Q. And were they used near the waterfront?  
A. Always on the waterfront.

Q. On wharves? A. Yes.

40 Q. And on ships? A. Yes, just the same as here today. They experimented on land before they went aboard. These things are only coming in now? Do you understand what I mean?



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Examination  
continued

Q. Yes. A. But it was just the same.

Q. Both oxy burning and electrical welding, on shore and on ship? A. Yes, definitely so.

MR. ASH: I will not ask the witness whether the Clyde is a big shipbuilding area.

WITNESS: There were dozens of ships down the line one after another, on the Clyde.

Q. Being repaired? A. Yes. It was not a case of one boat and a wharf.

HIS HONOUR: Q. Where you were on the Clyde - can you hear me? 10

MR. ASH: Q. Can you hear His Honour. His Honour is asking a question. A. No, I can hear him speaking, but I cannot hear his words.

HIS HONOUR: Q. I want to know, where he was on the Clyde - ?

MR. ASH: Q. His Honour wants to know whereabouts you were on the Clyde?

HIS HONOUR: No; I had not finished. At the place where he was on the Clyde, was there a wide expanse of water near where this work was going on, or was it in a sort of a nook of water or what? What was the position so far as adjacent water was concerned? 20

MR. ASH: Q. Where you were working on the Clyde was it a wide expanse of water, where you were, or was it rather in a nook of water, where you were? What was the position with regard to the water where you worked? A. The water where I worked was - there was Clydebank and there was Fairfield, and there was the shipyard there (indicating), and when they were launching a big boat, on account of the width of the river, they had to be very very careful to launch it that way (indicating) because that was the width of the River Clyde. Would that be satisfactory? 30

HIS HONOUR: Yes, it gives me an idea.

MR. ASH: Q. Were there any nooks or bays or inlets in the river? A. No - a straight river.

Q. About the width of a large ship? A. More than that; more than that. 40

Q. The river was about as wide as a large ship was long? A. No; it was wider than that, because there were ships running up and down, and they had to pass one another. You had to tie a ship like that (indicating), so that it did not get to the other side of the river, and every now and then on the River Clyde there was a ferry.

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Examination  
continued

10 Q. And were there ships passing up and down the Clyde there? A. Yes; when there was a big launching -

HIS HONOUR: If there was a ferry, that might account for some debris, if there was debris on the water.

CROSS-EXAMINED:

Cross-  
examination

MR. MEARES: Q. Did you see any dead animals under the sheerlegs? A. You are not pulling my leg, are you?

Q. You answer my question, will you?  
A. Dead animals?

20 Q. Yes. A. I never saw any dead animals.

Q. Did the amount of debris - ? A. The amount of debris - ?

Q. Yes - under the sheerlegs wharf - vary with the wind and the tide? A. Well, when it came high tide it all came there and hit the bank, and then when it went low tide it went out.- the debris went with the tide. Do you see what I mean? Is that satisfactory?

30 Q. The high tide would bring it up on to the shore? A. Yes.

Q. And the next high tide would take it out again? A. No; the next high tide would fetch it back again. The low tide took it out.

Q. At high tide the debris is on to the shore line? A. Up against the wharf, yes.

Q. And then, when the next high tide comes up, it floats it again and brings it back? A. Back the other way.

Q. Have you been out there recently? A. Where?

40 Q. To Morts Bay? A. I pretty often get the ferry down.

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Cross-  
examination  
continued

Q. And do you see all this debris under the wharf there now? A. Well, not under the wharf, but I see it on the water. I do not look under the wharf when I am passing on a ferry - excuse me, Your Honour.

Q. How would you describe that bay now, that there is a lot of debris in the bay now? A. Well, as far as I am concerned, it is just the same, but there are three or four ships using the wharf for tying up; ships are out of work, there have been two or three there the last time I passed down. 10

Q. If you went to the opposite side of the sheer legs wharf you would still see a lot of debris there, would you not? A. How could I see the opposite side?

Q. I mean the side of the bay opposite to the sheer legs wharf - where the Adelaide Steamship Co. is? A. Yes, down there.

Q. There is a lot of debris there too? A. Yes, much the same, and down where the Sydney Ferries yard is - you get it down there and you still get the kids going down there getting the timber. 20

Q. Do you really remember what happened on this day of the fire, or is your recollection a little hazy? A. Well, I would not say I could tell you any more than what I have told. I was at my job, and outside of my job I could not tell you any more about that, mister.

Q. Immediately before this fire - ? A. Yes.

Q. Did you see - I am not suggesting that you did - but did you see some timber floating? A. I would not say I saw timber. The first thing that drew my attention to the fire you are talking about was a little spark came down and set it alight. 30

Q. Do you remember making a statement to the Police about this matter? A. To the police?

Q. Yes. A. Never was interfered with.

"I did not ask you that. I asked you did you not make a statement to the Police - ? A. No. 40

Q. Concerning how this accident happened? A. Me-how the accident happened?

Q. Or how the fire started? A. They came and asked me my opinion. I was the man on the job, and I told them - the first thing -

Q. Please. A. All right.

Q. Now is this what you said? Before I put that to you, you do not ever remember seeing a piece of timber down there just immediately before this trouble? A. Definitely not.

Q. And the statement you made to the police you made within a day or two of the trouble, did you not? A. I do not remember the Police speaking to me.

10 Q. You said that the Police asked your opinion of it, is that right? A. Me?

Q. Yes. A. I never said that.

Q. Well, did they not come and ask you what happened? A. All round the yard?

Q. Yes. A. Yes.

Q. And that was within a day or two after the happening? A. Yes; it would be a couple of days-something like that.

20 Q. Was this what you said - "I walked to the edge of the wharf and looked down and saw - "? A. That would be correct.

Q. Saw a piece of dry timber? A. No; no; I never said that.

Q. Would it have been correct? A. How could I have said "Dry timber" lying on top of the water?

Q. Would that have been correct? A. No, it would not have been correct.

30 Q. "There was a circle of about 15 inches of flame - " is that what you told them? A. That was when we "shipped through".

Q. Is that what you first saw when you looked down? A. No, not when I first saw. I saw the little bit, but that bit about the dry timber I never said that. Who could say they saw dry timber lying on top of water. Will you tell me that Constable's name?

Q. No. A. That is all right.

40 Q. So that you never said anything about seeing a piece of timber? A. I never saw a piece of timber, I tell you.

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Cross-  
examination  
continued

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Cross-  
examination  
continued

Q. You never said that you walked to the edge of the water and, looking down - ? A. Yes; I said that.

Q. Saw a piece of timber? A. No.

Q. Or dry timber? A. No, not me.

Q. Did you not form the view - ? A. I beg your pardon?

Q. Did you not form the opinion, at the time of the accident - at the time of the fire or within a day or two, that the fire could have been caused by a spark from one of the electric welders, which may have fallen on some dry timber that was saturated with oil? A. I never said "dry timber" right through, but I will stick to that, that that spark came down - dry timber nothing - 10

Q. Did you not say this, and I want you to think "In my opinion the fire could have been caused by a spark from one of the electric welders which may have fallen on some dry timber which was saturated with oil" - is that what you told the police? A. Well - 20

Q. Is that what you told the police? A. If I told the Police it was dry timber how could it be saturated with oil?

Q. Now please. A. It might have landed on a piece of timber, if that is what you are meaning.

Q. Did you express the opinion that the fire could have been caused by a spark from one of the welders, which may have fallen on some timber - leave out "dry" or "wet" which was saturated with oil? A. Well, where the spark hit might have been some timber, but where he picked me up, I said, "Timber piles", I said "timber piles", if that is what you mean. 30

Q. "It could have been caused by a spark from one of the electric welders, which may have fallen on some dry timber which was saturated with oil", is that not what you said? A. Well, there might have been a bit of timber there, where the spark landed, but I never said that. The only thing I said about timber was the piles where the fire came along and hit the piles, but I never said about a piece of dry timber. 40

Q. Do you remember telling Mr. Sharp, the industrial manager - A. The industrial officer.

Q. As to what you observed? A. Yes; I spoke to Mr. Sharp, I remember him well.

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Q. There was nobody burning on the wharf, was there - ? A. No.

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Q. At the time of this fire? A. Correct.

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Q. Are you quite certain of that? A. I am sure of that.

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Q. Did you tell Mr. Sharp this, that you were working on some hatch beams? A. Hatch beams, correct.

Cross-  
examination  
continued

10

Q. Lying on a trestle some feet from a burner? A. No.

Q. Didn't you? A. No.

Q. So that that would have been quite incorrect? A. Definitely incorrect.

Q. And you are prepared to swear positively? A. Lance Sharp will tell you that, because Lance -

Q. You are prepared to swear positively, are you not? A. Yes, definitely there was no burning on the wharf.

20

Q. Immediately before this fire? A. That is correct.

Q. And you are quite certain of that? A. I am sure of that.

Q. No burners or no welders? A. No, not on the wharf, there were welders on the ship.

Q. And you and your mate were the only two on the wharf? A. Yes.

30

Q. And nobody else was on the wharf? A. That is right.

Q. What were the other 150 doing? A. Aboard the ship.

Q. And only the two of you were on the wharf? A. Yes.

Q. Do you still say that you have a very clear recollection of the events of this day? Do you still say you have a very clear recollection of the events of this day? A. Yes; only two of us went over the fence; the rest were aboard the ship.

40

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Cross-  
examination  
continued

Q. And did you say this to Mr. Sharp, that you went to look over the wharf. I am sorry - did you say to him that you noticed some smoke rising between the vessel and the wharf? A. Smoke?

Q. Yes. A. Well, that would be the smoke coming from the little bit that was alight -

Q. The smoke from what? A. The little bit that went alight.

Q. The little bit of what? A. On the water on top of the oil. 10

Q. The little bit of what? A. Well, the first thing I saw was about that size (indicating).

Q. And what was it the size of your hand that you saw? A. A little flame.

Q. You told him that you saw some smoke rising between the vessel and the wharf? A. Well, that is where it started - between the vessel and the wharf.

Q. Is that what you first saw? A. Yes, that is right. As far as the fire is concerned, that is correct. 20

Q. Then did you say this, that you went to look over the wharf to see what it was coming from - (Objected to).

Q. Did you say that you went to look over the wharf to see what it - ? A. Yes.

Q. The smoke, was coming from? A. Yes.

Q. But a burst of flame, which appeared to come up from the inside of the pile, prevented you? A. That is right. That is after this went along. 30

Q. So that here we have the smoke coming up? A. The smoke coming up.

Q. And you went over to look to see what was happening? A. That is right; that is when it was smoke.

Q. And a burst of flame prevented you from seeing? A. No; you get me wrong.

Q. I will read it again. You went to look over the wharf to see what it - that is, the smoke - was coming from, but a burst of flame, which appeared to come up from the inside of the pile, prevented you, and at that time fierce flames burst up from between the decking planks immediately beneath you? A. That is right. 40

Q. And you saw Mr. Sharp, did you not - Mr. Sharp asked you some questions about this, within a day or two of the fire? A. Yes. He never saw nothing, and he was taking, from Tom, Dick and Harry - what you say and what you say and what the next one says, but I was the man that was there when the flame came up.

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Cross-  
examination  
continued

Q. Would you be so kind as to answer my questions? A. Yes.

10 Q. Then did you go along and see me? A. What?

Q. Did you go along and see me? A. I had to go and see you.

Q. You had to? A. Yes, that is correct. I remember you.

Q. Did you tell me this - "The Corrimal was about the width of a fender away from the wharf"? A. Correct.

20 Q. "I think she was towards the aft end of the wharf" - that is, the Corrimal? A. I could not exactly tell you no more than I could tell you what was port and starboard to the wharf.

30 Q. How far were you from the edge of the wharf - how far were you from the edge of the wharf at the time you were working - when you saw this smoke? How far were you from the edge of the wharf? A. Well, His Honour asked me to give a little distance - something like that (indicating), and then there were two trestles (indicating) and my job was sitting on the two trestles.

Q. And then did you tell him that you were about five feet from the edge of the wharf? A. Yes, that would be correct - five-feet from the edge of the wharf.

Q. And then did you go on to say that immediately across from you there was a person on a stage welding the upper structure of the vessel - A. Correct.

40 Q. In the vicinity of the corner of the deck house, about midships? A. Correct. I told you his name, didn't I?

Q. I have a note that I am not clear about. I do not think I had better put it. Then did you say "The wharf consisted of planks which had a gap of an inch to an inch and a half between each plank"? A. Correct.



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Cross-  
examination  
continued

Q. And the first you knew of the fire was then the flame came right up the gaps in the planks?  
A. Hit my back.

Q. And the place where the flame first appeared was directly below where the welder had been working? A. That is like fore and aft - that is not that way (indicating). That is fore and aft - do you understand what I mean?

Q. Yes, and the stage which the welder was on was about five feet by five feet? A. No, I never said that. I could not tell you what was said - I could not even tell you whether the stage was slung over or rigged. I could not even tell you that. You perhaps asked me what was the general condition of the stage down at the dock and I would say "You must have four or five feet - "

10

Q. It would be five feet? A. Yes; I would say that. That was the regulations down at the dock. That would be the regulations.

Q. And this man was working on a stage? A. Yes; I would say he was working on a stage.

20

Q. Now we can imagine that you were working at the time of this incident, were you? A. No; my mate was scrubbing my bar - cleaning it with a stone.

Q. Scrubbing your bar? A. The beam - so that it could be plait and everything when it was handed over to the man who was going to proceed with it.

Q. Were you looking over towards your mate when he was doing that? A. That was when I saw the little bit of light.

30

Q. Can we assume that the edge of the Bar Table nearest to His Honour - I want you to assume that the edge of that table along there (indicating) is the wharf? A. Yes.

Q. And towards His Honour is the Corrimal lying along it? A. Yes, that is correct.

Q. Now I want to go over to the Bar Table, and will you turn me round and tell me which way your mate was facing? A. Which way my mate was looking?

40

Q. Yes. A. That way (indicating), away from the wharf. He was looking towards the engineers' shop. You are looking towards the wharf now, do you understand?

Q. He was looking - ? A. I was at the edge of the wharf. I was looking down while he was scrubbing the bar. He was standing there, looking towards the engineers' shop, scrubbing the bar. (Witness indicates).

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Cross-  
examination  
continued

HIS HONOUR: The witness claims not to be able to hear me at all, but if you like to get him down there, to get the two of you about in the relevant positions, I will allow that.

10 (At this stage, the witness stepped from the witness box on to the floor of the Court, near the Bar Table.)

MR. MEARES: Q. This (indicating) is the edge of the wharf? A. Yes.

Q. This (indicating) is the water down here? A. Yes.

20 Q. Now where was your mate? A. Well, there were a couple of trestles, and my job was on that, and there was this little space for walking along (indicating) and he was looking towards the engineers' shop scrubbing that bar. He was standing there (indicating) and I came over here (indicating) and looked over the water and I saw that little bit of flame.

Q. Just before you saw the little bit of flame were you facing your mate? A. No.

30 Q. What were you doing? A. I was having a look at the water - the oil. I was watching that because I had nothing to do on the bar, ready for me. Do you understand me?

Q. Yes. So that we get this position, that you were actually watching the water? At the minute-while my mate was doing his little chore - he had his chore, and when he finishes I do my bit.

Q. At that time, before you were looking at the water, you never saw any smoke, did you? A. Smoke?

Q. Yes. A. Well, there was definitely no smoke, no.

40 Q. So that it would be quite incorrect to say that you noticed smoke coming out of the water, and you then walked to the edge of the wharf. That would be quite untrue? A. No.

Q. Wouldn't it? A. No; you have got me wrong. The first time I saw smoke was coming off the pile.

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Cross-  
examination  
continued

Q. Coming off the pile? A. The pile, and then that became flame. Is that the smoke you are talking about?

Q. Did you see the smoke before you looked at the water? A. No, not before I looked at the water. The first thing I saw when I looked at the water was the little bit there (indicating) and then I went over -

Q. Please - did you not tell the police this, "I was working on the wharf. I noticed smoke coming out of the water. It was dirty black smoke. I walked to the edge of the wharf and looked down saw a piece of dry timber"? A. No; all wrong; all wrong. I would be telling a lie if I said "yes", to that. Do you know that? I would be telling a lie. I came up here and took the oath. I never saw smoke until such time as the flame got near the pile, and then I said to my mate, "Jack - " 10

Q. No, please. When you looked down, how long were you looking at the water before you saw anything unusual? A. Oh well - between looking at the water and taking a squint up at Bill - 20

Q. Who is "Bill"?

HIS HONOUR: Taylor, I suppose,

WITNESS: Mr. Taylor.

MR. MEARES: Q. How long were you looking at the water? A. I suppose I was standing there a couple of minutes - three minutes - while my mate was working. I am not a task master.

Q. Was there anything to interest you down there? A. I was looking at the oil. I was wondering when it was going to cease. - I mean that stench, do you understand that? 30

Q. What did you first see on the water? A. I never saw nothing at the beginning. The second time - I walked backwards and forwards, and then when I went over again I saw this little flame about the size of your hand.

Q. You first of all went to the water and then you did not see anything? A. That is correct. 40

Q. And then you walked back to your mate? A. Yes.

" . And then you did not see anything? A. No; I cracked a little joke, or something like that.

Q. And then you went back to the water then?  
A. Yes; just backwards and forwards that little space.

Q. How many times did you go backwards and forwards? A. Are you aware it is 11 years ago since this happened?

Q. I am. A. How could you remember that - how many times you walked backwards and forwards?

10 Q. The second time you went to look down - ?  
A. Yes.

Q. What did you see? A. I saw a little - about the size of your hand - what I would take was a light - a flame.

Q. What you would take was a flame? A. Yes.

Q. So that you never saw any spark? A. I never saw the spark falling, no - not at the spot - but that is the only thing I know. It was right above me where the welder was working.

20 Q. Having seen that little flame - ? A. Yes.

Q. Did you not form the opinion that the fire could have been caused by a spark from one of the welders? A. Isn't that what I told you before - that I went over and told my mate -

Q. Please. And did you not form the opinion, that the spark might have fallen on some timber saturated with oil? A. No.

Q. For how long did you watch it? A. Watch it?

30 Q. Yes. A. Oh well, I had a look at it, and I saw it. I went over to my mate and I said, "Have a look at this, Jack. What have we gone into? How far is that going to go?"

Q. First of all you saw it - first of all you saw the flame, did you? A. A little flame, yes.

Q. And then you went back to your mate?  
A. When I saw the little light.

40 Q. And you never went back to the edge of the wharf again? A. Yes; I went back and I brought him over. I said "Have a look at that". I brought him over to have a look at it.

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Cross-  
examination  
continued

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Cross-  
examination  
continued

Re-examination

Q. So that the two of you were having a look at it? A. Yes, and I said "What are we going to do?"

Q. And how long were the two of you looking? A. Just as long as to make our mind up what we were going to do.

Q. Well, how long? A. Well, how long does it take you to make your mind up on a thing like that?

RE-EXAMINED:

10

MR. ASH: Q. And when you looked the second time, was that when it was spreading? A. That was when it was coming up the pile, when I said to Jack Regan, "What are we going to do; look at that flaming up the pile".

Q. Was it bigger the second time you saw it than the first time? A. It was spreading coming along.

Q. Spreading the way you said? A. It started there (indicating) and that was the pile there (indicating). It was travelling like that, as quick as that (witness demonstrates).

20

Q. Apart from making towards the pile, was it getting bigger by spreading? A. Yes, and the flame was getting bigger too.

Q. Higher? A. Yes - more like a light.

Q. Do you remember Mr. Meares asking you about a statement you made to the Police? A. Yes.

Q. And did you also, after the bit he read out to you - ? A. Yes.

30

Q. Say, that there was a circle of some 15 inches of flame? A. No. Oh well, that might have been when we were getting ready to shoot through - (objected to; pressed; objection withdrawn).

Q. At one stage, did you tell the Police that there was a circle of 15 inches of flame? A. No, definitely not. I would like to have the constable's name, too.

Q. In what circumstances did the police officer come and see you and the other men after the fire? A. It was not after the fire; it was not even that day.

40

Q. Well, later some time after the fire - ?  
 A. With that gentleman over there and that gentleman over there and that one there (indicating).

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Q. Where were you standing when they saw you?  
 A. I think as a matter of fact I was in the boilershop. I had been sent for.

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Q. Were you sitting at a table when you were asked about it? A. That I could not tell you.

Re-examination  
 continued

10 MR. ASH: Q. Did you write anything, or did they just ask you questions? A. They asked me questions. The only thing I wrote was the money for my loss, my personal property.

Q. And did the policeman see a lot of you together on the same day? (Objected to).

Q. Did the policeman see you alone one day, and another man the next or what? A. It would be that way.

20 Q. It would be which way, one by one? A. Yes, it would be that way.

Q. Did he see you on the same day as other men, or different days? (Objected to; allowed).

Q. When did Mr. Sharp see you? A. He sent over for me.

Q. Did he ask you questions? A. Well, he just asked what my personal damages were and suchlike.

(Witness retired)

No.14

Evidence of O. F. McMahon

No.14

O. F. McMahon

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30 OTTO FRANCIS McMAHON, Sworn, examined as under:

MR. ASH: Q. What is your full name? A. Otto Francis McMahon.

Examination

Q. You reside where? A. In Sydney.

Q. What is your present position? A. Executive Officer of the National Electrical Manufacturers Association of Australia.

Q. I think you served in the Royal Australian Navy from 1st January 1914 until the end of November 1946? A. That is so.

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Examination  
continued

Q. And you have membership of certain Institutes. Which are they? A. I am a Member of the Institution of Engineers, Australia; a Member of the Institution of Marine Engineers, England; and also a Member of the local branch of the Institute of Marine Engineers, Australia.

Q. I think you are a retired Engineer Commander? A. Retired from the R.A.N.

Q. And you were awarded the Order of the British Empire for your services? A. Yes. 10

Q. Since you retired, have you held offices apart from your present executive office? A. Yes. I was managing director of the Australian Aluminium Company, up to the end of 1962.

Q. During your 34 years' service - A. Could I correct that? I was joint managing director at that date.

Q. Did you, during your 34 years' service - A. 32.

Q. - serve in many ships in the Royal Australian Navy and in Navy establishments? A. Yes. 20

Q. From 1936 to 1942, did you serve in turn, in the Australia and Canberra, H.M.A.S. Australia - A. As Engineer Officer of those two ships, yes.

Q. And as such, you were in charge of machinery, boilers, auxiliary machinery and that type of thing? A. Yes.

Q. What responsibilities did that include in regard to fuel bunker oil? A. Directly responsible, under the Captain, for all fuel arrangements, the correct burning of all oil and the correct stowage of oil and all precautions necessary to safeguard the ship from fire. By "burning" I mean burning in the furnaces and by "stowage" I mean stowage in the tanks. 30

Q. Does that include the operation of bunkering? A. Yes. That is bunkering.

Q. You were responsible, as Engineer Commander, for all precautions in the use of bunker oils, in these matters? A. Yes. Could I correct a statement there? Instead of being called Engineer Commander, I was known as Commander (E) of the ship, a specialist in engineering. 40

Q. You had the full rank of Commander? A. Yes.

Q. You held a position comparable to Chief Engineer in a citizen ship? A. In a Merchant Navy ship, yes.

Q. The Engineer Officer you said is responsible to the Captain -

HIS HONOUR: Responsible under the Captain, for these various things.

10 MR. ASH: Q. What are your obligations concerning the training and supervision of any men in the ship? A. By rules and regulations of the Service, the Engineer Officer of the ship - (Objected to). I was responsible for training in the ship, for precautions against fire and so forth.

Q. And generally the use and control of bunker oil? A. Yes. (Objected to; rejected).

Q. What are your duties as regards the control of personnel and the training of personnel in the ship? A. As Commander (E) of the ship?

20 Q. Yes. A. I was directly responsible for the training of all engine room personnel in the ship, in all matters pertaining to the engine room department of the ship.

Q. Does that include the bunkering of oil? A. That does include bunkering of oil.

Q. And the care and precautions attached to it? A. Yes.

30 Q. During the 33 years of your service or whatever it was, did you serve in other types of ship? A. Yes, many times.

Q. What range of types? A. From battleships down to destroyers and small minesweeping ships.

Q. Did you have experience of furnace oil? A. Yes, in many ships.

Q. Did you have experience of furnace oil in ships where it was the only means of propulsion? A. Yes.

Q. In many or few or some? A. In many.

40 Q. Did you also, early in your career, serve in coal burners? A. Yes.

Q. With what arm or body did you receive your training? A. In the Royal Navy.

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O.F.McMahon  
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Examination  
continued



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Examination  
continued

Q. Which later led to you becoming an Engineer  
Commander? A. Yes.

Q. In the engineering field? A. Yes.

Q. During your years experience, have you  
visited many ports in various parts of the world?  
A. Yes. I could not say how many, but quite a  
number.

Q. And have you visited them in the capacity of  
a ship's officer? A. Yes.

Q. Have you, during that experience, come into  
contact with the precautions that are observed or  
not observed, laid down I should say, in the  
ports? (Objected to).

10

Q. Have you acquired knowledge of the precautions  
observed in the ports which you have entered, in  
regard to bunkering of oil? A. Yes.

Q. Have you been into ports in all parts of  
the world, where docking operations involve the  
repair of ships? A. Not in all parts of the  
world, but in some parts.

20

Q. In some parts of the world? A. Yes.

Q. Do they include ports of roughly the size  
of Sydney Harbour, or some larger, some smaller?  
A. Mainly -

HIS HONOUR: Do you mean volume of shipping?

MR. ASH: Yes.

WITNESS: It would be difficult to answer, but I  
should say the answer would be many and various  
ports in the world, and some would be comparable  
with Sydney.

30

MR. ASH: Q. In size or numbers of ships or both?  
A. In the amount of traffic going in and out,  
would be the fairest way to judge it, I think.

Q. Have you, during your experience, come into  
contact with other officers of ships? A. I have  
come into contact with officers of the Merchant  
Navy and officers of other ships of the Royal  
Navy and R.A.N.

Q. Was that contact and coming into contact  
with them casual or more or less continual, during  
those years? A. It would be casual in the case of  
the Merchant Service officers, but would be  
continuous in the case of the Royal Australian Navy.

40

Q. Have you spoken and mixed with the officers of the Merchant Navy with whom you have come into contact, freely, on a discussion of mercantile matters? A. In a general way, yes.

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Q. Would you, when I am asking you these questions, bear in mind that His Honour is interested and concerned in this case, with a time up to the middle of 1951? A. Yes.

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10 Q. In answering any question, if there is any qualification which comes across any view, say since November 1951, draw attention to it.  
A. Yes.

Examination  
continued

20 Q. When entering port as a ship's officer on the ship, in which there is a considerable amount of ship traffic comparable to Sydney, what would you expect in the field of debris lying around the foreshores of the harbour? (Objected to; allowed). A. Could I ask whether you are referring to type of debris or quantity of debris?

Q. I will take both before you are finished. Take quantity on the foreshores of the harbour first. A. One cannot judge the quantity but one would always expect to find some debris. As regards quantity, it depends on the state of the tide and the various aspects of the harbour. But one cannot be very definite on a thing like that.

30 Q. Would you now go into a bay, such as Mort Bay, of that order. I take it you are familiar with Mort Bay? A. I know where it is.

Q. You know its location; you have been there? A. Yes.

Q. What would be the expectancy, with a bay of that type? (Objected to; withdrawn).

Q. You gave me a general answer in regard to debris in harbours? A. Yes.

40 Q. I will now ask you to be more particular. In relation to a bay, whether in Sydney or elsewhere, having the general configuration and general location of a bay such as Mort Bay? (Allowed). A. What was the first part of the question?

Q. You said, I think, first of all, you would expect debris in the harbour? A. Yes.

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Examination  
continued

Q. Would you expect more or less debris or more or less concentration in such a bay as that?

A. In a bay such as you have mentioned, one would expect more debris to accumulate.

Q. Could you now tell me what type of debris you, as a ship's officer coming into port on a ship, would expect to accumulate in such a bay? (Objected to; allowed conditionally).

(Further hearing adjourned until 10 a.m. on Tuesday, 12th February, 1963).

10

12th February  
1963

IN COMMERCIAL CAUSES

Nos.3000 & 3001 of 1955

CORAM: WALSH, J.

THE MILLER STEAMSHIP CO.PTY. LIMITED

v.

VACUUM OIL CO. PTY. LIMITED

CALTEX OIL (AUST.) PTY. LIMITED and  
OVERSEAS TANKSHIP (U.K.) LIMITED.

R.W.MILLER & CO. PTY. LIMITED v. SAME

20

FIFTH DAY: TUESDAY, 12th FEBRUARY 1963

MR. MEARES: Might I ask my friend when he is going to let us have the amended particulars of claim? We are proceeding on an issue which might be outside the pleadings?

30

MR. ASH: My friend is entitled to ask that. I told the Court it was a matter of re-drafting the description of the case and the matter would be fought on the substantial issues. My junior is drafting it. It is a matter of time. I will endeavour to get it done.

OTTO FRANCIS McMAHON, Examination continued:

MR. ASH: Q. I had put one or two questions to you on the basis of what a ship(s officer could expect. I will put a general prefacing remark to all the questions I will ask along those lines.

40

The last one I asked yesterday afternoon, you answered that in a bay such as Mort Bay, in a port of harbour such as Sydney Harbour, in amount of traffic, you would expect more debris to accumulate. We had got to that point? A. Yes.

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Examination  
continued

10

Q. I will preface the question again. When visiting a port or, indeed, being in a port, comparable in traffic to Sydney Harbour, what would a ship's officer on the ship expect, as to whether or not industrial operations would be carried on on parts of the foreshore of such a port or harbour? (Objected to; allowed).  
A. I would expect to find a fair extent of industrialisation around the foreshores.

20

Q. And what would such an officer on the ship, in such circumstances - and I will not repeat it each time - expect as to whether or not docking operations would be carried on there? (Objected to; allowed).  
A. In ports of any size, comparable with Sydney, one would expect docking facilities to be available.

Q. In normal circumstances, would one expect docking operations to be carried on? A. Yes, they would be.

30

Q. What would such an officer, in such circumstances, expect if there were such a dock in the harbour, as to whether or not ship repairing operations would be likely to be carried on at the time? (Objected to; allowed).  
A. Did you refer to the amount of debris?

Q. No. I am temporarily off the debris. You said, first of all, industrial operations? A. Yes. I said one would expect docking facilities to be available.

40

Q. If there was a dock and if there were dock operations likely to be carried on, would you expect among those, would a ship's officer expect among those docking operations, that ship repairing work would be likely to be one of them? A. Yes, naturally. In any dockyard in any port of any size in the world, one would expect that operation to be part of the day's work.

Q. And if ship repairing operations were going on, would such an officer expect the use by the operators, of oxy burning torches and electric welders, in connection with such ship repairing? A. Yes. (Objected to; allowed).

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Examination  
continued

Q. I think you did answer yes? A. I did say Yes.

Q. And if there were such oxy-torch burning and electrical operations being carried on in and about the wharf and the ship, what would be expected by such a person as to whether sparks, molten metal and slag might be projected - (Objected to; rejected).

Q. Getting back to the debris position, if I may take you back to that, to recall the last answer you gave on that, you said that in a Bay such as of the configuration and location of Mort Bay, you would expect more debris to accumulate. That is the last answer you gave yesterday. Getting back to our ship's officer on this ship in port, in October 1951, what would be expected by such a person as to whether or not the quantity of debris would increase above the ordinary amount around a ship in that area, where it was being repaired when tied up to a wharf? (Objected to; allowed). A. You asked me what I would expect in the way of debris -

Q. What such an officer would expect? A. Around a ship?

Q. Being repaired at a wharf, and perhaps I should add that it had been there for two or three months before, in that position? A. One would expect, depending on the configuration of the harbour where this wharf is situated, to find a certain amount of debris, such debris consisting of garbage, bags, old clothing, pieces of paper, all the flotsam and jetsam that gets in a harbour which is not washed out to sea by tides. Further up the harbour you go, the worse the conditions would prevail. One would expect that.

Q. Would there be any special increase or change when men are working at a wharf, or on the side of a ship, where a ship is being repaired, having regard to what they use? A. Yes - (Objected to; allowed). Yes, in those conditions, where men are working nearby, one would expect a piece of timber perhaps and junk thrown overboard by the men, to be accumulated in greater degree than you would find where there is not such work going on.

Q. You mentioned junk thrown overboard. Could you be more specific on the type of thing you have in mind? A. Yes. I am thinking now of ships

refitting alongside, where loose ends of timber sometimes find their way overboard, or pieces of sacking or cotton waste and stuff like that, used for cleaning down, instead of taking them ashore to be burned in an incinerator, they would be just dumped overboard against the rules and regulations of the Harbour Trust.

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Examination  
continued

10 Q. Getting back to bunker oil, of which I think you said you had extensive knowledge, if a substantial quantity of bunker oil were spilled over the decks and scuppers of a ship into a harbour, first of all does that oil tend to spread? A. It does tend to spread, yes.

Q. And does it tend to be carried - I do not think there is any dispute on this - with the tide? A. Yes, naturally.

Q. And the wind? A. Yes.

Q. Does it tend to be carried to the foreshores? A. Yes, it will show up on the foreshores.

20 Q. And if in quantity, to coat objects in and about the foreshores, piers and other things? A. One only has to read the papers. Almost every day someone is complaining of docks in Sydney Harbour being coated with oil.

Q. Would those matters be such as would be expected by this hypothetical officer, in the event of a spill of furnace oil? A. Certainly he would expect - (Objected to; pressed).

30 Q. When I speak of the hypothetical officer, I speak of an ordinarily competent and experienced ship's officer. A. Yes.

Q. You say you have had contact with them, observations, conversations with them, over your years' experience in various parts of the world. That is correct, is not it? A. That is so.

Q. In the light of that experience I ask you would an ordinarily competent ship's officer expect such a situation? (Objected to).

40 HIS HONOUR: Of course he would expect it to spread. Just where it would spread and what effects that might have is another question, of course.

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Examination  
continued

MR. ASH: Q. Is it the duty of the ship's officers to prevent a spillage of bunkering oil over the side of the ship? (Objected to; rejected).

Q. In your experience as an officer, was it your duty as an officer, to prevent, if circumstances arose, the spillage of bunker oil over the sides of the ship into the harbour? A. One would take every precaution to prevent that. It is definitely laid down in regulations - (Objected to). 10

HIS HONOUR: You had better refrain from making any reference to regulations. We get into technical difficulties of admissibility of evidence; unless you are later on asked something about regulations, and then I will rule on it, if it is objected to. But do not volunteer anything about regulations.

WITNESS: I was going to finish my answer, but I think I have answered it.

MR. ASH: Yes, you have. You say that was your duty. In your experience whilst at sea, did that apply to a chief engineer and any other engineer-officer in charge of bunkering? (Objected to; pressed; rejected). 20

Q. You, as chief engineer, had the responsibility in the field of bunkering, during your experience. If you were not there at any time, did you ever delegate your functions in that regard to the next engineer officer? (Objected to).

MR. MEARES: I suppose if an engineer had a duty to perform and was not there, it would be his duty to delegate it. I will not be making an issue of that. 30

MR. ASH: Q. In your view, and again speaking as at October 1951, would the spillage of oil, furnace bunker oil, in substantial quantities, into harbour waters adjacent to a bay such as Mort Bay, where docking operations were going on, constitute a potential fire risk? (Objected to; argued).

HIS HONOUR: The witness, who is an experienced ship's engineer-officer, has been asked a question the substance of which is to seek his opinion as to the existence or otherwise of a fire risk if, in a place such as Mort Bay, a substantial quantity of furnace oil was spilled into the harbour waters. The question has been objected to and it has caused me some difficulty to determine whether it is admissible. 40

It is evident from the way the case has developed so far and from the history of the previous case of the Mort's Dock Company against the present defendant, that an issue in the case will be whether the occurrence of a fire, assuming that to have been the result of the spilling of the oil, was a thing which was reasonably foreseeable.

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Examination  
continued

10 As I have said, the question has caused me some difficulty, as to whether evidence as to what the expectation would have been, of a particular experienced man, is admissible as going to such an issue. It is rightly said, I think, that ultimately the question of whether that particular result was reasonable foreseeable, will be a question for the court as a tribunal of fact, to determine. I do not think, however, that that constitutes in itself, a reason for the denying of the giving of the  
20 present evidence and, in a case of the present kind - and I say "of the present kind" judging it so far as it has thus far developed before me - I am disposed to think that some assistance can be legitimately obtained by the court - and by "legitimately" I mean within the rules of evidence - by getting opinion evidence from people who are sufficiently qualified by experience, on such a question as this.

30 I will therefore be disposed to admit the evidence, and I am much more disposed to do so than perhaps I otherwise should have been, by the circumstances that in the case of at least two witnesses, the defendant has already sought to obtain from them and has obtained from them, evidence of what their opinions were at a time just before this fire happened, as to whether there was a fire risk resulting from the oil.

40 I would therefore admit the evidence. I should have said that I do think the form of the question should be reconsidered.

(Question marked \* on p.260 read).

MR. ASH: Q. To that I add, "in your opinion."  
(Allowed). A. In my opinion, the spillage of oil under those conditions mentioned, would create a fire risk.



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Examination  
continued

Q. Do not answer this question for a moment. Having regard to your knowledge, observation and contacts with other ships officers over the 33 years, in your view, in your opinion, would any competent ship's officer confronted with the same circumstances as postulated in the previous question, view the spillage of oil as constituting a potential fire risk? (Objected to: pressed: rejected).

Q. I will read you a question and your answer, from p.227: 10

"Have you acquired knowledge of the precautions observed in the ports which you have entered, in regard to bunkering of oil? A. Yes."

I am going to ask you a question. I do not want you to refer to terms of regulations. I am referring to practice and general procedure. Can you answer this question? What is the general nature of those precautions? (Objected to; argued; withdrawn). 20

Q. In the Navy, both the Royal Navy and the Royal Australian Navy, are there precautions existent in general behaviour of officers, for caring, tendering bunkering oil? (Objected to).

Q. What, taking into account all the ships in which you served and indeed, any port installation you later served at, is the prevailing practice with regard to the care of bunker oil, in relation to fire risk? A. In all ships in which I have served as an engineer officer and, in fact, in all ships of the Royal Australian Navy - (Objected to). In all ships in which I have served, there has been a practice that every precaution should be taken - (Objected to) - when ships are fuelled, and that no naked lights are allowed within the vicinity of the fuelling taking place, no oxy-acetylene or electric welding operations shall continue in the vicinity. All these precautions are taken. I might have mentioned - I overlooked it - some special precautions are taken regarding spillage of oil, the overflowing of tanks. 30 40

Q. In your view, speaking as at 1951, in the light of your experience, do you consider spillage of oil as leading to potential fire danger? (Objected to; rejected).

HIS HONOUR: Q. You said something about precautions against spillage? A. Yes.

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Q. What were they, in the ships in which you served? A. The precautions are these, that you have certain engine room ratings stationed at the tanks which are being filled, so that they may warn the people in charge of fuelling when the tanks are coming up to the top. They will shut the necessary valves in time to prevent them overflowing.

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Examination  
continued

10

HIS HONOUR: I might state here that the question which was asked by myself, I consider would be relevant in the case, even apart from any question of foreseeability, because we have an issue in the case as I understand it, as to whether the spilling was what I might call careless, as distinct from whether or not it was negligent in law, negligent in the legal sense.

20

MR. ASH: Q. In the event of oil being spilled during the process of bunkering, are there any precautions, in the light of your own experience? A. Yes. In the light of my own experience, if a spillage occurred the oil which was spilled would be immediately mopped up, if it is spilt into the ship, on the deck of the ship or in between decks and, at the same time, extra precautions would be taken to see that no smoking occurred in the vicinity of the spillage and no naked light was allowed anywhere near the source of the fuel.

30

Q. In relation to the last two matters I have asked you about your experience of your own precautions and procedure, this would relate to furnace oil? A. This relates to furnace oil. The same thing, of course, relates to other oils, but when you talk about bunkering you talk about furnace oil.

40

Q. But it includes furnace oil used for fuel? A. Exactly.

Q. During the war, did you have any experience of ships being sunk and any oil being on the waters? A. I had experience of my own ship being sunk and being heavily afire, due to oil leakage caused through shell fire, but that did not involve oil on the water surrounding the ship.

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Examination  
continued

Q. You have, however, some knowledge of oil on water, have you? A. I have, yes.

Q. A shell would be a rather violent ignition agent, I suppose? A. It would be a very good ignition agent.

Q. But apart from ignition agents, let us come forward to the step where you have got an ignition agent, however small, provided it is acting as an ignition agent in the sense that it is keeping going. Did you, in 1951, as a result of your experience, regard that as dangerous in the area of oil on water? (Objected to).

10

Q. Have you had experience of oil burning on water, once an ignition agent is in the vicinity? A. Yes.

Q. What have you to say as to the inflammability of the oil, that stage having been reached? (Objected to; allowed).

Q. (Previous question read). A. What do you mean when you say what had I - would you repeat the question?

20

Q. I will reframe it. If you have furnace oil on water and there is present already, no matter how, a flame or existing ignition agent, something has been ignited - do you follow? A. Yes.

Q. Where the oil is on the water, is that inflammable? A. It is.

Q. I will formally ask this question, if I may. When you gave your own experience of the precautions taken in bunkering operations of fuel, dealing with oil spillage and other matters that you recall - do not answer this - in your opinion, in 1951, would any ordinarily competent maritime officer, ship's officer, know that such precautions had to be taken in such an operation? (Objected to; rejected).

30

(Short adjournment).

Q. I think you wanted to correct one bit of evidence, when you said your ship was sunk. You were referring to the HMAS Canberra? A. Yes.

40

Q. Your ship was heavily damaged by enemy shell-fire and then, after its abandonment, it was deliberately sunk by the Americans because it was of no further use at the spot? A. Yes. I would

like to correct something I said in evidence today, which I said not deliberately, when I said that my ship was sunk by shellfire. It was not sunk. She was heavily damaged by shellfire and set alight, and was afterwards deliberately sunk by the Americans to get her out of the way.

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Examination  
continued

10 MR. ASH: I have here the Regulations. This is the 1939 Edition and I can have them identified. I have no objection to tendering them.

(Engineering Manual for His Majesty's Fleet, containing Regulations and Instructions relating to the machinery and engineering personnel of His Majesty's Ships, 1939, in force at relevant date of fire, tendered; rejected; m.f.i. 1).

20 Q. Bearing in mind your own knowledge of the contents of these regulations in relation to precautions in bunkering fuel, and fire, was the practice that you have given in evidence, that you carried out, different or in line with the regulations? (Objected to; rejected).

30 MR. ASH: Your Honour will recall I asked two general questions about the knowledge of an ordinarily competent maritime officer which Your Honour rejected. Might it be noted that they were rejected on the substance of the question and that any form could have been cured if the substance had been admitted. The transcript might just say it is objected to.

HIS HONOUR: It can be noted that I rejected the questions because, in my opinion, it was not permissible for the plaintiff, at any rate at the present stage of the case, to lead evidence from a witness such as Commander McMahon, as to his opinion as to what should have been the expectations or knowledge of any competent engineering officer.

40 MR. ASH: Q. And would Your Honour add, his opinion as to what should have been or was the knowledge?

HIS HONOUR: Yes; that I would not admit his opinion as to what was or should have been the knowledge of expectations of any competent officer.

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Cross-  
examination

CROSS-EXAMINED:

MR. MEARES: Q. You have indicated, I think, have you not, that you would have been aware, in 1951, that in Sydney Harbour ship repairing would be going on? A. Yes.

Q. And that in ports of a substantial size, there too you would have expected ship repairing to be going on? A. That is a fact, yes.

Q. And you knew, did you, from your experience, in 1951, that ship repairing went on not only in dockyards which were closed from the sea, but alongside piers and wharves and jetties? A. Ship repair yards, we call them, yes. 10

Q. And at ship repair yards at, not only in Sydney, but in many other harbours, jetties or wharves or piers, alongside which ships were repaired? A. That is so, yes.

Q. And that, in the course of repairing there would, at times, be used oxy torches or electric welding apparatus? A. That is so. 20

Q. And that that could be used in-board or out-board. Is that so? A. That is so.

Q. Did you look upon, in 1951, the burning by oxy acetylene burners or electric welders, as being a source of danger, if oil were in the vicinity? A. Under certain conditions, yes.

Q. Under what conditions? A. Under conditions which would exist if there is some agent present which could ignite the oil fuel.

Q. You did not consider the sparks, molten metal or slag from the torch or welder, as being an agent which could ignite the fuel? A. Not directly, but through a further agent. 30

Q. Through what agent? A. Through any accumulation of rubbish that might be in the vicinity of the oil, or which was floating on the oil, or spontaneous ignition, of oil waste which would be floated on the surface of the oil.

Q. Did you envisage that sparks, slag or molten metal, from oxy acetylene torches or electric welding apparatus, could ignite things such as wood or paper or hessian or cotton waste? A. Yes, I did, I envisaged that being so. 40

Q. Do you appreciate, as I suppose you do, that if you have a wick in the water that wick, assuming it is alight, can ignite oil? A. What do you term a wick?

Q. Such as a piece of cotton waste which is alight? A. Yes. That could create a fire.

Q. How? A. How could it create a fire?

Q. Yes. A. By molten metal, one of the sparks - -

10 Q. You have the wick alight. A. By raising the temperature of the oil to an extent where it gives off gas or vapours which would ignite.

Q. You mean that the heat of the flame would cause gaseous vapours to be created? A. That is so.

Q. And what causes you to express that opinion? A. My own knowledge and experience.

20 Q. Would you relate what your knowledge and experience is of wicks on waters? A. Firstly I relate a practical experience, of trying to light oil fuel in a boiler.

Q. I asked you, first of all, to deal with wicks on water. A. I am leading up to it. One has to go back to one's own experience and you know from that experience that oil fuel will ignite when it is raised to a certain temperature and that temperature then creates gases which are given off, which creates a fire.

30 Q. So that you knew then that if you had something in the water which was being used as a wick and that wick could be lit, it could cause a fire? A. That is so.

Q. Had you ever seen a wick in oil, on waters of the harbour or in the open sea, causing a fire? A. Not a wick as you described it.

Q. Had you ever seen anything causing a fire in water on which there was oil? A. I have seen shellfire which created a fire, but I have not seen any wick as you described it.

40 Q. Have you ever seen shellfire create a fire directly on water on which there was oil? A. No, because I was not present at that time, at that spot. But it could happen.

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Cross-  
examination  
continued

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Cross-  
examination  
continued

Q. Of course, the problem of oil in Sydney Harbour always has been quite an acute one?

A. I agree.

Q. And as you indicated, one only has to read the papers - and I may be misquoting here - to know of wharves being coated with oil. A. That is so.

Q. And of course, that position has existed ever since you have known Sydney Harbour? A. It has existed more in the last 20 years, since oil fuel tankers and oil burning ships have been in the harbour. 10

Q. Not only have the wharves been coated with oil, but more particularly, the piles have been coated with oil? A. That is so.

Q. And this, in 1951 and before, would have indeed been a very common phenomenon in Sydney Harbour? A. I think so.

Q. I suppose you have seen welding being freely carried on alongside wharves which have oil on them, and alongside piles which are impregnated with oil. (Objected to; withdrawn). 20

Q. You have seen ships alongside wharves where there has been welding, oxy-acetylene burning, being carried on, which have had oil on them? A. Which have had oil on the wharves?

Q. Yes. A. I can recollect seeing on many occasions, welding being carried out, either oxy acetylene or electric welding, but I cannot recall at that particular moment of time seeing oil in the vicinity. 30

Q. However, it is quite common to see oil on the wharves? A. It is quite a common thing to see oil under wharves in Sydney Harbour and spilt on them.

Q. I suppose you have also had experience of ships being alongside wharves where welding and burning is being carried on, the piles of which have been impregnated with oil in the manner you have described? A. On some occasion you see oil impregnated piles, but that does not mean because they are oil impregnated, you have seen also, at the same time, oxy acetylene work being carried out. 40

Q. Let me put this to you, related to 1951. If you had been given the task of carrying out repairs, supervising them, to a ship in which you were, and that ship had pulled up alongside a wharf, would you have inquired whether the piers were impregnated with oil, before you permitted any welding or burning operations to commence? (Objected to; pressed; allowed).  
A. This is a purely hypothetical case?

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Cross-  
examination  
continued

10

Q. Indeed? A. I would say that the management of the ship repair yard concerned would take all necessary precautions -

Q. Please. I am asking you what you would have done. A. In this hypothetical case I would have seen that all necessary precautions were taken in the vicinity of the welding.

Q. Do you really say that? A. Yes.

Q. I suppose you have had ships alongside wharves in Sydney Harbour? A. Yes.

20

Q. In which repairs were being done? A. Yes.

Q. And burning and welding? A. Yes.

Q. Have you ever taken any such precautions, in a ship in which you have been in control, in regard to repairs alongside any wharf in Sydney Harbour? A. I have seen that the necessary precautions have been taken.

30

Q. First of all, do you remember ever being alongside a wharf the piles of which were impregnated with oil? A. No, I cannot recollect that circumstance.

Q. And might I suggest you cannot recollect it because you have never looked to find out whether the piles were impregnated with oil? A. I have looked. I have seen piles impregnated, but not from ships where I have served.

40

Q. But you have told us - correct me if I am wrong - that this oil pollution problem is of substantial magnitude in the Sydney Harbour? A. Oil does float in Sydney Harbour in quantities.

Q. And the pollution problem, to piles, is of a substantial magnitude? A. Yes, it is.

Q. You are fully aware that oxy burning and electric welding is going on, daily, alongside those wharves? A. I have said that.



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O. F. McMahon

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Cross-  
examination  
continued

Q. And you would concede that the greater percentage of those wharves would have piles impregnated with oil? A. Some may be coated with oil. When you say "impregnated" you mean coated through and through.

Q. I am sorry. Coated with oil. A. Yes, coated with oil.

Q. On the question of foresight, you would now appreciate, would you not, that a fire could be lit on the pile, as a result of sparks falling on it? A. Yes, I agree with that. 10

Q. Had you ever thought of that possibility in 1951, or before it? A. The possibility always existed.

Q. Had you ever thought of the possibility of that occurring, in 1951 or before it? A. Yes.

Q. Had you, in your life, ever taken any precautions whatsoever where welding or burning was being carried on, where there was oil, old oil or new oil, that had accumulated on piles through pollution? A. I have taken precautions - 20

Q. Would you answer my question? A. I do not quite get what you are leading me to in your question.

Q. You have pulled up alongside wharves and have had your ship repaired there? A. Yes.

Q. And it has been done using burners and torches? A. To a certain degree, yes.

Q. And many of the wharves alongside which you have pulled up may I assume have had piles which have been coated with oil? A. That is so. 30

Q. What precautions have you taken in that connection? A. I have seen that foam fire extinguishers have been provided in the vicinity of the welding.

Q. A foam fire extinguisher? A. Yes, and depending on the conditions of the oil that you have mentioned has been floating on the piles, so you would report to your superior officer whether you thought it was necessary to go on or not. 40

Q. But the fact is, is it not, that in this harbour today, welding and burning is being carried on continuously at wharves the piles of which are coated with oil. That is so, is not it. A. I have said that, yes.

Q. And of course, that commercial practice is not only being carried out in Sydney Harbour, but in every other harbour in the world where industrial operations are being carried on. That is so, is not it? A. That is so. Could I say something there?

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Cross-  
examination  
continued

Q. If you wish. A. I think I have already said that in these conditions certain precautions are taken or should be taken.

10 Q. I do not want you to say that. A. That is part of my answer.

Q. That is a question for His Honour. May I take it if you were the Engineer-Commander, if you drew alongside, you would make a point, would you, of inspecting the piles? Do you say that seriously - before you started work? A. No. I would not personally inspect the piles in every case. I might -

20 Q. And you would not direct anybody, in every case, to inspect them, would you? A. No.

Q. And you have never directed anybody to inspect the piles? A. I have only carried out my observations.

Q. You have never directed anybody to inspect them? A. Not directly, no.

Q. And you have never stopped welding or burning, because of oil coated on piles? A. Not because of oil coated on piles but because of oil in the vicinity.

30 Q. Where have you ever directed operations to cease because of oil being coated in the vicinity of the operations, and when? A. Are you referring to oil-coated piles?

Q. No. A. In any general case?

Q. Yes. A. I have ordered operations to cease at Garden Island, alongside Garden Island, because the fuelling of the ship was going on and I directed the operation of oxy acetylene burning to cease.

40 Q. I asked you about oil. A. The oil was there.

Q. Of course fuelling was going on. You told us about that. But have you ever directed operations by way of oxy acetylene burning or

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Cross-  
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continued

welding to cease, because of the existence of oil on water - ever? A. No. I have never met that case, where I have had to do it.

Q. Have you ever seen in your life - and I want you to be careful and speak only of up to 1951 - an oxy-acetylene torch or welder directly through its sparks, molten metal or slag, light up an object floating in the harbour? A. In Sydney Harbour?

Q. Any harbour? A. No.

10

Q. Prior to 1951, - and when I say prior to 1951 I mean prior to the date of the Mort's Dock fire in 1951, which was November? A. Yes.

Q. - had you ever heard of any oil fire on waters? A. Yes.

Q. When? A. In Darwin Harbour, in 1942.

Q. Were you there? A. I was not there. You asked me had I heard of it.

Q. Yes. What was the nature of that fire, from what you heard of it? A. The American destroyer, and I think her name was the Peary, was bombed by Japanese and oil fuel flew out of the ship and was floating on the water immediately near the ship and the ship was alight.

20

Q. The ship was alight? A. Yes.

Q. Did the oil catch alight when the ship spilled it? A. Well, the oil was alight.

Q. The oil on the water, I am talking about? A. Was alight.

Q. And this was following, of course, direct blast or a direct shell hit on the ship? A. A bomb hit.

30

Q. By? A. Japanese bombers.

Q. Apart from that incident, in November 1951 had you ever heard of oil being alight on a harbour? A. Yes.

Q. When? A. Experimentally, in England, during the time of the early part of the war, when it was expected that the Germans might invade England, a special section - I think it was an Admiralty section - was set up to experiment with the burning of oil on water.

40

Q. For the purpose of keeping the Germans away? A. For the purpose of keeping the Germans away, and they carried out experiments there to burn oil on water, and it was never put into operations.

Q. I know that. But did you know that in 1951? A. I knew that in 1951, yes.

10 Q. Had you read as to how they got it alight?  
A. No. I have no knowledge as to how they got it alight.

Q. All you knew was that the Admiralty had been experimenting, for the purpose of endeavouring to ascertain whether practicably they could light and keep alight oil on waters, for the purpose of defending the coastline?  
A. I knew it could be done, because I spoke to the man who was responsible for laying it out. He was Engineer Rear-Admiral Simpson, R.N.

20 Q. I suppose he spoke to you confidentially?  
A. No. It was not confidentially. It was general knowledge at the time. He did not tell it to me in confidence.

Q. Apart from a deliberate act or apart from enemy attack on a ship, have you ever heard of an oil fire on water? A. No.

Q. Are you now aware that in 1943 or 1944, I think one of your own ships - I have forgotten - it is a reported case - caused a fire in Fremantle Harbour, through oil on the water? Did you know of that? A. During the war -

30 Q. Did you know that? A. No.

Q. Prior to November 1951, had you ever seen sparks from a welder or torch light up anything?  
A. Yes.

Q. What? A. Old rubbish.

Q. Whereabouts? A. On the wharf at Garden Island.

Q. And you saw that yourself? A. I saw that myself.

40 Q. And you have seen that phenomenon happen once and once only? A. Yes.

Q. And of course, you have told us what precautions you take when bunkering oil? A. That is so.

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continued

Q. Leaving aside any of your own regulations, even if there were no danger of fire you would still, would you not, take those precautions?

A. If there were no danger of fire - (Objected to).

Q. Danger of fire in general. A. One would take certain precautions to see there was no spillage even if there was no risk of fire, because of the wastage of oil.

Q. You would take precautions in bunkering for two reasons amongst others, would you not; first of all, for reasons of economy. A. I would say the major reason - -

10

Q. First of all, one reason would be the reason of economy? A. Yes.

Q. And another very important reason would be because of the risk of pollution by the oil?

A. That is another risk, but there is a third risk.

Q. And another reason would be, of course, that if you spilled the oil you would run the risk of getting into trouble with the harbour authorities?

20

A. Yes.

Q. And you are aware and have been for many years prior to 1951, that in some ports at any rate, if you spill oil you run the risk of being prosecuted? A. That is so.

Q. You would also have been aware of this in 1951, would you not, that the risk of fire from oil within a ship would be very much greater than the risk of fire from oil on water? A. Yes, because the risk -

30

Q. Just answer the question. A. Yes, that is so.

Q. How did you come to give evidence in this case, if you do not mind me asking you? A. I was asked if I would be prepared to give evidence in this case.

Q. Who asked you? A. Mr. Douglas Murray.

Q. And when? A. About six weeks ago.

Q. Had anybody else approached you? A. No-one else at all.

Q. At that time, did you know of the Morts Dock fire? A. No.

40

Q. When did you retire? A. 1946.

Q. And from 1946 onwards, have you been living in Sydney? A. Yes, all the time.

Q. And then, I suppose you were told how the fire happened? A. Yes.

Q. And it was explained to you that the fire happened as a result, in some way, of a wick being in the water?

HIS HONOUR: Perhaps not in those terms.

10 WITNESS: I do not understand the term "wick" that you are using.

MR. MEARES: By "wick" I mean a substance floating on oil on top of water, which burns as the result of it being partially or wholly impregnated with the oil? A. I would call that an agent.

Q. Well, we will call it an agent. I suppose you were told of such an agent causing this fire? A. Yes.

20 Q. And you were told, I suppose, of the particular form of the agent, namely a piece of waste? A. No, I was not given any information about any particular form of agent.

Q. Did you ask? A. All I said, it could have been created by -

Q. Did you ask what form of agent it was? A. No, I did not.

30 Q. Have you seen welders and burners taking precautions against the igniting of sparks, molten metal and slag? A. Yes, on many occasions.

Q. And are their precautions, generally speaking, effective? A. Generally speaking, yes.

Q. And are they, generally speaking, taken? A. Not always.

Q. "Generally speaking" was the question? A. Yes.

40 Q. Of what do they consist? A. Of having a fire extinguisher or wet bags or wet ashes kept in the vicinity of the welding.

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Q. Might I just ask this question. Of course, with the repairing operations that are being carried on alongside wharves, in ships, alongside ships and on the wharves themselves, repair of engines and that sort of thing, you would normally generally anticipate some impregnation or coating or oil on parts of the wharves, assuming they had been used for some years? A. You would, yes.

Cross-  
examination  
continued

RE-EXAMINED:

MR. ASH: Q. You referred to spontaneous ignition?

10

Re-examination

A. Yes.

Q. What was your experience of that point? A. About 1944 - I am not sure of the date but it would be about 1944 - when I was deputy engineer - (allowed).

Q. Would you explain how it is relevant, your experience in relation to this matter? A. Spontaneous ignition can be brought about by gradual heating up of an oily rag, an oily piece of waste. It need not contain a great deal of oil, but this oxidisation of the oil and the waste gradually works up a temperature. (Objected to; allowed). I am trying to describe spontaneous combustion.

20

Q. Go on. A. This waste, if impregnated as you call it, or soaked in oil, even if it only contains as little as five or ten percent, the oil would gradually oxidise and heat would be generated until such time as it bursts into flame. That is known as spontaneous combustion.

HIS HONOUR: Q. You have no external source of heat at all? A. No external flame.

30

Q. But you have heat created by the chemical process that goes on? A. By oxidisation of the oil. Could I give an example of that?

Q. If it is something like the present problem, I suppose. A. I can give a very good example of that which happened in my experience. In 1944 I was Deputy Engineer Manager of the Garden Island Dockyard, and at 10 o'clock at night a fire broke out in the sail loft at Garden Island. The fire was eventually put out by the Fire Brigade of Sydney. In a subsequent inquiry it was learned - (Objected to). This was a fire caused directly by spontaneous -

40

MR. ASH: Q. You are speaking of something you ascertained from the inquiry, of the cause of the fire? A. Yes.

Q. By the way, you were asked about a fire in Freemantle. Were you away in service during the war? A. I was away in service for the period of the war, until the end of 1942.

Q. Were you away in 1944? A. I was in Sydney in 1945, at the dockyard.

Q. You said you saw some smouldering cotton waste on the wharf at Garden Island? A. Some smouldering rubbish.

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Re-examination  
continued

10 HIS HONOUR: He said he gave that as an occasion when he had seen something ignited by means of oxy-acetylene sparks and the like.

MR. ASH: Q. You were asked about your experience of having repairs done to ships in which you were stationed, in port, and particularly, in Sydney, and then you were asked whether you had actually seen, yourself, electric welding apparatus or an oxy acetylene torch project or put a spark on a piece of cotton waste, and you said you had not. Do you recall that? A. Yes.

20 Q. Was the ship in which you were Commander(E) often tied up at dockyard, for repairs? Would it happen frequently? (Objected to).

Q. First of all, I separate the question. Were you often tied up for repairs? Were you tied up once a week, once a month, or now and again, or what? A. No, very infrequently.

30 Q. Can you give us an idea, roughly? A. I am talking about wartime experience. My ship had the record for the highest number of miles steamed for the first two years of the war.

HIS HONOR: Q. But generally, not in actual wartime conditions. A. Generally, the answer would be three to four times a year.

Q. You would get repairs done somewhere? A. Some a short time and some a longer period, yes.

MR. ASH: Q. Would any of them go as long as months? A. Yes. During a big refit it would be for a period of maybe six weeks.

40 Q. You were asked about this oil on the piles in the harbour. You said you knew it. Is there a difference between oil coating piles which has been there say for a year or two years, to a situation where there is a large quantity of oil



Plaintiffs just arrived within 48 hours and coming up and  
Evidence down with the tide, and thicker than just an  
ordinary film?

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MR. MEARES: I will concede there is a difference.

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(Witness retired).

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Re-examination  
continued

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G. C. Forrest

Evidence of G. C. Forrest

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GEOFFREY CORNISH FORREST, Sworn, examined as under:

Examination

MR. STREET: Q. Your name is Geoffrey Cornish Forrest?  
A. Yes.

10

Q. You live at 3 Paul Avenue, St. Ives? A. Yes.

Q. And you are a retired ship master? A. Yes.

Q. You went to sea in 1915 with the P & O Company?  
A. Yes.

Q. And you remained with that company right  
through until your retirement in 1956? A. Yes.

Q. Except for a period in the Second World War?  
A. Yes.

Q. You, I think, obtained your various professional  
certificates and in 1923 you got your Extra Master's  
Certificate? A. Yes.

20

Q. For the purpose of clarifying it, in the Merchant  
Service, you have a Third Mate's Certificate? A. Second.

Q. A second certificate, first mate's certificate  
and a Master's Certificate? A. Yes.

Q. And one degree beyond that, so to speak, is the  
Extra Master's Certificate? A. Yes.

Q. And you obtained that in 1923. You were at sea  
right up until the Second World War? A. Yes.

Q. And then you joined the Royal Naval Reserve?  
A. Yes.

30

Q. With the rank of Commander? A. Yes.

Q. And you were at sea to quite an extent during  
the war, in the waters in the vicinity of the North  
Atlantic, in England? A. Yes.

Q. In Particular, as Commodore of Coastal Convoys in the immediate vicinity of England?  
A. Yes.

Q. And after the war, you returned to your company, to the P & O Company? A. Yes.

Q. And I think your first appointment after the war, in 1946, was as Staff Captain in the Strathnaver? A. Yes.

10 Q. And after about six months, you went to command the Pinjarra, a 10,000 ton passenger and cargo ship? A. Yes.

Q. You then went to the command of the Canton, a 16,000-ton passenger ship? A. Yes.

Q. From there to the Chitral? A. Yes.

Q. A 15,000 ton passenger ship? A. Yes.

Q. And you then commanded the Stratheden?  
A. Yes.

20 Q. A 23,000 ton passenger ship, and your last command, before retirement, was Commander of the Arcadia, a ship of just under 30,000 tons?  
A. Yes.

Q. And you were in command of that for some three years? A. Yes.

Q. And in the latter part of your command of the Arcadia you were the Commodore of the P & O Company's fleet? A. Yes.

30 Q. And the Commodore of a shipping company's fleet is an appointment from amongst the senior Masters in that fleet? Is that the position?  
A. Yes.

Q. In other words, the senior seagoing officer of the company is the Commodore? A. Yes.

Q. And that is the position you held with the P & O Company on your retirement? A. Yes.

Q. You came ashore in 1956 and are living in retirement at the moment? A. Yes.

40 Q. During your retirement I think you have maintained one at least connection with the sea, inasmuch as you have been appointed to the Commonwealth Panel of Marine Assessors? A. Yes.

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continued.

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Examination  
continued

Q. And you have sat in the Commonwealth Court of Marine Inquiry with Mr. Justice Spicer, as an Assessor? A. Yes.

Q. What is your opinion as to the presence of any element of danger in permitting furnace oil to escape over the side of a ship, when bunkering in port? (Objected to; allowed if up to the time of 1951).

MR. MEARES: I do not want to seek any advantage, but so that we will not waste time, may I take it that objection to the form of questions with other witnesses on this aspect could be taken as including questions put to subsequent witnesses? If Your Honour feels I should object specifically otherwise, I shall do so. 10

HIS HONOUR: I do not want the hearing to be interrupted by objections which have to be taken but which you know will be overruled because of previous rulings, but I do not know how we do it. Perhaps you had better make your objection without arguing it. 20

MR. STREET: Q. When expressing opinions to the court in your evidence, would you express such opinions as you held in 1951; in other words, any new knowledge that you may have acquired since 1951, if any, I would ask you to put aside, and look at the situation as existing in 1951. A. Yes.

Q. Do you follow what I am asking you to do? A. Yes. 30

Q. With that qualification, going back to 1951, what is your opinion as to the presence of any element of danger in permitting any furnace oil to escape over the side of a ship, when bunkering in port? A. There would be danger under certain circumstances. It would depend on the escape of a sufficient quantity of oil and on temperature, and whether the oil was confined in any way by ships, jetties, and other circumstances of that kind. 40

Q. Danger of what? A. Danger of fire.

Q. What is your opinion as to the inflammability or possibility of a fire, in relation to oil floating on sea water? (Objected to; allowed).

A. Normally, slight. It would entirely depend on sufficient circumstances to raise the temperature of the oil at least locally.

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Q. Can you tell me of any particular precaution which is observed in relation to oil floating on water, in ships? (Objected to).

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Examination  
continued

10

Q. Can you tell me of precautions observed in relation to any particular part of a ship where oil is or may be floating on water? A. In places such as oil and engine room bilges, if there were any oil floating on the bilge water there, you would endeavour to pass it through the separators and get rid of it as soon as possible.

Q. There is normally a certain amount of water in ships bilges, is there? A. As a rule.

Q. And if oil seeps down on to the surface of that water, you say steps are always taken to evacuate it? (Objected to).

20

Q. What do you say in regard to oil getting on to bilge water? A. You get rid of it as soon as possible, by passing it through a separator.

\*

Q (Approaching witness). I am showing you a chart of Sydney Harbour and inviting your attention to the part marked as Mort Bay. I think I should preface it by saying that the ships of which you were Master, when coming in and out of Sydney, did not get as far up the harbour as Mort Bay.  
A. That is so.

30

Q. I draw your attention to an oil wharf on the northern part of Mort Bay and to premises marked "Morts Dock Engineering Co." I want you to assume that a ship lying at the oil wharf, something before four a.m. one morning, discharges into the harbour a quantity of furnace oil which, by the action of wind, currents or other natural forces, comes down to the northwestern tip of the bay to such an extent that it is seen to stretch from the southwestern corner of this wharf, the fitting-out wharf, across to the southern gate of the dock, across that corner, the oil is seen to be covering that corner bounded by the line I just mentioned to you, and covering it in a thickness so that it looks black and you cannot see the water through it. Do you follow the assumption I am asking you to make? A. Yes,

40

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\* Q. I ask you further to assume that this discharge which took place at four a.m. was seen in the vicinity I have shown you by eight o'clock the same morning and that this was at the end of October, in Sydney, in normal October weather. Would you have any opinion as to the risk of fire danger in a discharge of oil in a quantity such as that, in circumstances such as that? (Objected to; pressed; argued; allowed).

Q. (Evidence from \* to \* on pages 261 to 282 read). 10  
A. I would think that there would be some fire danger.

Q. I want to put to you a further assumption in that set of facts, that on the foreshores of Mort Bay, in the part where the wharf is situated, which I described as the fitting-out, the Sheerlegs Wharf, dockyard operations in the shape of welding, cutting with torches, are in progress, and that there is a ship alongside that wharf, and that the quantity of oil is such that, in addition to covering the corner I have spoken of, the oil extended along the length of the water under the wharf. By "dockyard operations" I mean operations on the wharf involving oxy and electric welders and oxy cutting. With those additional assumptions as to the operations going on on the wharf, the oil extending under the wharf and the ship alongside the wharf, what is your opinion as to the risk of fire danger? (Objected to; allowed). 20

A. I think under those circumstances the risk would be increased. There would be a possibility of floating debris and the assembly of combustible matter together might cause a risk of fire. 30

Q. You said that the risk would be increased. Would the risk, as increased, be, in your opinion, a negligible or an appreciable risk? Could you give us any idea of the degree of risk which, in your opinion, a discharge of that nature, in those circumstances, would involve? A. I would not consider it to be an immediate or a risk requiring immediate action. 40

Q. Can you express any opinion as to the degree of risk? A. No, I could not.

Q. Would you describe it as a negligible risk? A. Not negligible, no.

Q. More or less than negligible? A. I would be uneasy about it.

Q. So far as this bay is concerned that I have shown you, I want to show you a photograph, marked 2 of those the tender of which has been foreshadowed. I am showing you a photograph of Mort Bay and the tanks on the right hand side of the photograph are apparently the tanks at this oil depot and the background of this photograph is up in the western end of the Bay, the northern part of the western end of the Bay?

10

A. Yes.

Q. Firstly, could you tell me, as a ship's Master, whether you can see anything characteristic of a particular type of shore installation - (Objected to).

Q. A particular type of shore installation in that photograph, leaving out of account the oil depot? (Objected to).

(Luncheon adjournment).

20

MR. STREET: Q. At the adjournment I had shown you the photograph which I think is still before you, is it not? A. Yes.

Q. I had asked you, leaving out of account the oil depot on the right hand side of that photograph, whether you recognise any distinctive type of shore installation in the remainder of that photograph.

HIS HONOUR: Are you objecting to this?

30

MR. MEARES: It will no doubt be agreed between us eventually, where the photograph was taken from.

WITNESS: Yes. I would recognise a repairing yard or berth. That is what it would look like.

MR. STREET: Q. A ship repairing yard? A. Yes.

Q. I have asked you to leave out of account the oil installation at the right of the photograph. With the pencil, would you point to the particular features which you recognise as being incidents of a ship repair yard? A. This crane, to start with.

40

MR. STREET: The witness points to the crane in the vicinity of the dry dock.

WITNESS: And then that arrangement of roofs, which does not look like warehouses.

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continued

MR. STREET: The roofs extending between the two cranes.

WITNESS: And probably this crane, although there are similar cranes in ordinary discharging and loading berths.

MR. STREET: The witness points to the crane on the Sheerlegs Wharf.

Q. Does the association of the two cranes with that type of shed indicate to you a ship repair yard, or dockyard? A. It would, yes.

10

Q. Can you say from your experience whether ship repair yards or dockyards are, by and large, fairly readily distinguishable on the foreshores of a harbour, to a Master Mariner, to an experienced Mariner? A. As a rule, yes.

Q. At all events, this is one of the things which is readily distinguishable. (Leading objected to).

Q. In ships coming in to the port of Sydney, is there on the bridge, a chart; a properly equipped ship has a chart of the Port? A. Yes. (Objected to; withdrawn).

20

Q. What navigational equipment would a ship entering Sydney Harbour have, in relation to the nature of the harbour itself? (Unless related to master of Wagon Mound, objected to; allowed as to whether ships with which witness connected had some aid of the sort mentioned).

Q. In any ship that you have been in, entering a port such as Sydney, whether you have a pilot on board or not, do you have a large scale chart of the port? A. The largest scale available - sailing directions.

30

Q. I will come to the sailing directions later on. Is the chart Exhibit A a large-scale chart of the type to which you refer? A. Yes.

Q. You will see on that, in Mort Bay, "Morts Dock and Engineering Co" is printed. A. Yes.

Q. Could you tell me whether there is any particular practice observed in the preparation of shipping charts in the recording of shore installations in harbours? (Objected to; rejected).

40

Q. You have told me that you would recognise this as a dockyard. From your experience, could you tell me what type of operations you would expect to be carried on in a dockyard such as that which you have recognised in the photograph you have before you? A. All kinds of repair work, but principally ironwork, and that would entail rivetting, welding, cutting.

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Examination  
continued

10 Q. As regards work of the nature you described - rivetting, welding and cutting - whereabouts in such dockyards would such work be carried on?  
A. Wherever the work was, as a rule - on board a ship, alongside the fitting-out quay or whatever it was.

Q. Or? A. Or in shops or on the quay.

Q. So far as concerns the operation of this cutting or welding, have you observed, in your experience, as a ship's Master, the cutting or welding or rivetting? A. Yes.

20 Q. What do you observe when a man is cutting with an oxy-acetylene torch? (Objected to on basis of common knowledge; not pressed).

Q. In relation to debris in ports - and I want to direct your mind to a port having a similar amount of traffic to the Port of Sydney, similarly busy to the Port of Sydney - would you expect there to be debris in ports of that description? A. Yes, always, and I think you would expect to find more debris the further up  
30 the harbour you went.

Q. What is the reason for that? A. Because the wind principally, and also the tide to some extent, has less chance to clear it.

Q. Looking at the chart, Exhibit A, merely as a matter of observations on the chart, what would you say as to Mort Bay, as to the likelihood or otherwise of debris collecting in there?  
A. I should say it was almost a trap for it.

40 Q. What is the reason why you say that?  
A. Because any wind blowing towards the bay would cause debris to float into it, and a wind blowing in the opposite direction would simply create a calm near the foreshores.



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Q. Taking your observation from the chart and adding to that, your observations from the photograph, of a ship repair yard, what would be your expectation as regards debris in Mort Bay? Does what you see in the photograph lead you, as an experienced mariner, to any further view about debris in Mort Bay? A. I would expect to find debris there, unless steps had been taken to clear it deliberately.

Q. What sort of debris would you expect to find in Mort Bay, having regard to the photograph which you see? A. The debris that you often see in waters around repairing yards, and which is floating pieces of wood, cleaning cloth, cotton waste - anything of that kind. 10

Q. You mentioned cleaning cloths and cotton waste. Are they types of material which you would expect to encounter in ship repair yards such as you see in the photograph? A. Oh yes. Cotton waste is common to almost anywhere that you find machinery. 20

Q. You say that you would anticipate finding that amongst the debris. Have you observed cotton waste or rags actually finding their way into the water? A. Yes.

Q. In what circumstances? A. Winchmen cleaning winches, for instance, and repairing them.

Q. And then doing what? A. And then wiping their hands on cotton waste or wiping part of the machinery, and just getting rid of it almost without thinking. 30

Q. Getting rid of it where? A. Throw it over the side.

Q. And you add, "almost without thinking?" A. Yes.

Q. Is that something which you have commonly seen, or is that rare? A. I have seen it quite commonly in cargo ships.

Q. I want to come back again. I asked you a question about a chart and I was cut off by an objection. What other type of literature is commonly carried by ships, for the purpose of informing their masters as to details required for the navigation of the ship? (Objected to; pressed; allowed). A. Sailing directions, light lists. 40

Q. Pausing with sailing directions. Is this volume which I have in my hand a volume of sailing directions? A. Yes.

Q. And what are sailing directions? Is it a set of books? A. It is a set of books covering the whole world.

Q. And a ship going to a particular part of the world would have the books relevant to the part where it is going? (Objected to). A. Yes.

10 Q. So far as the equipping of a ship for a voyage to a particular part of the world is concerned, what is your view as to the necessity of carrying the sailing directions relevant to that part of the world? A. They give necessary information so far as the Master is concerned, for the approach to the Port that he is making for, and also about the port.

20 Q. Have you ever known, in the whole of your experience, a ship of any size going to some other part of the world which has not had the sailing directions for the part of the world to which it is going? (Objected to; pressed; allowed). A. I have never known a ship go without sailing directions.

Q. Would you look at that volume? Is this the volume of the sailing directions which include Port Jackson? A. Yes.

Q. I am showing you the 1950 edition? A. Yes.

30 Q. In Ports of the size of Sydney, comparable size or comparable business, have you, in your experience, found whether there are local port regulations that govern shipping within the port? A. Practically always.

Q. And is that a matter to which the Master of the ship entering such a port directs his attention? (Objected to; rejected).

MR. STREET: Might I put this witness' practice, without infringing Your Honour's ruling?

MR. MEARES: I would object to that.

40 HIS HONOUR: I do not think so.

("Australia Pilot", Vol. III, 1950 Edition, with particular reference to p.21, lines 4 and 5 and page 48, lines 46 to 48, tendered; rejected).

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G. C. Forrest

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Examination  
continued

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Examination  
continued

MR. STREET: Q. When you were trading in and out of Sydney, did you have on your ship a copy of the Port Regulations for Sydney? A. Yes. (Objected to; rejected).

(Port of Sydney Regulations, with particular reference to regulations 28, 122 to 124, 250, particularly (g), tendered; objected to; admitted and marked Exhibit F).

HIS HONOUR: You may go ahead and ask your questions, Mr. Street. I would have thought they were unnecessary. 10

MR. STREET: Q. When approaching a port - you have identified the volume of the Australian Pilot - tell me what use a master mariner makes of the pilot when approaching the port of Sydney? (Objected to).

HIS HONOUR: That is this book?

MR. STREET: Yes.

HIS HONOUR: I do not know of anything that makes that admissible now when it was not before. I take the view I still do not allow the question about the book. 20

MR. STREET: Q. You have identified the book a moment ago, and you said you have never been on a ship which has not had the book appropriate to the particular port where it is going to? A. Yes.

Q. Have you been on other ships apart from ships you have served on yourself from time to time, on their bridge and navigation parts? A. Yes. 30

Q. Can you tell me from observations on other ships, as well as ships you have been on yourself, the extent to which relevant zoning regulations are to be seen on other ships? (Objected to: rejected).

HIS HONOUR: My present view is that I will find in the absence of any evidence to the contrary that the employees of the defendant who were in control of the Wagon Mound were acquainted with the regulations made under statutory authority governing this Port insofar as they were relevant to a ship of that type. It may be that some of those regulations would be things the Wagon Mound people would skip over. 40

MR. STREET: Q. Coming to another topic, are you familiar with the process of bunkering a ship with oil fuel? A. Yes.

Q. Furnace oil? A. Yes.

Q. Which particular officer of the ship is in charge of that operation? Whose responsibility is it? A. The chief engineer's responsibility under the Master, of course.

10 Q. Have you in your experience heard of fires of oil on the surface of water? A. Yes.

Q. This is prior to 1951? A. Yes.

CROSS-EXAMINED:

MR. MEARES: Q. It is not unusual, is it, when a ship approaches this Port for it to be taken charge of by the pilot who pilots it into its jetty or mooring berth? A. That is the usual procedure.

20 Q. In that event the pilot is in charge of the ship insofar as taking it from one place to another is concerned? A. The Master is required to give navigational charge to the pilot.

Q. Mr. Street asked you if you have ever heard of a fire on water prior to 1951. Perhaps we should ask you to tell us of it. A. I have no personal knowledge. I have never seen a fire of that nature, but I have read of them.

Q. Do you remember when it was? A. No.

30 HIS HONOUR: Q. Do you remember what you read or where the fire was? Do you remember in what publication you read of it, to start with? A. In Newspapers.

MR. MEARES: Q. Do you remember when? A. At various times. During the War to some extent. Probably two or three cases.

Q. Can you remember any particular case? A. No, I do not.

40 Q. You have no recollection of whether it was due to enemy action or what it was due to? A. Not at this stage.

Q. You have yourself no knowledge as a scientist or an engineer? A. None whatever.

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continued

Q. Have you any knowledge of what a flashpoint of oil is? A. Yes, that is within a shipmaster's knowledge.

Q. Are you aware of any use of the words in relation to oil and derivatives of it, "combustible" or "inflammable"? Are you aware of those expressions as applied to derivatives of fuel oils, "combustible" or "inflammable"? A. I can only interpret those words in the ordinary sense. "Combustible" is something that will burn. "Inflammable" is something that readily takes fire.

10

Q. You would look upon fuel oil used for bunkering ships as in the combustible category, wouldn't you? A. Yes.

Would you agree that combustible liquids are relatively safe to handle, and a combustible liquid includes bunkering oil? A. Relatively safe, yes.

(Witness retired).

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Evidence of F. J. Kennett

20

FREDERICK JOHN KENNETT Sworn, examined, deposed:

MR. ASH: Q. You reside at 11 Abbott Street, Cameray? A. Yes.

Q. Are you a boilermaker by occupation? A. Yes.

Q. Are you at present employed at Cockatoo Island Dockyard? A. Yes.

Q. In October and November 1951 were you employed at Mort's Dock as a boilermaker? A. Yes.

Q. Had you been with Mort's Dock then for a number of years? A. Yes, off and on for some considerable years.

30

Q. Do you remember the day of the fire on the 1st November at about 2 o'clock or thereabouts? A. Yes.

Q. Were you working at the time on the mast of the "Corrimal" which was at the wharf? A. Yes.

Q. Were you welding with an electric welder? A. Yes.

Q. Where were you working in relation to the "Corrimal"? Was it fore, aft or about midships? A. Round about midships.

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Q. Did you then drop your things and leave the position where you were standing? A. Yes.

Examination  
continued

10 Q. As an electric welder do you wear something that comes down and partially obscures your vision? A. Yes, we wear a screen or shield to protect us.

Q. Did you step back from your immediate spot and raise that up? A. Yes.

Q. What did you then see when you stepped back to that position? A. All I can remember seeing is a small amount of smoke coming up between the planking.

20 Q. From underneath the wharf? A. Yes.

Q. Did you then direct your mind to getting some of your gear? A. Yes.

Q. Where was that? Was it at the back of the wharf? The gear you were working with? A. No, it would be on the left-hand side between the store wharf and the centre of the crane line.

30 Q. A bit further along the wharf? You went over to get that, did you? What was the next thing you heard or saw? A. When I started to walk across to get it, it came up in a sort of volume, a sort of explosion, from underneath, and I never got it.

Q. On hearing the volume coming up, did you see first of all smoke coming through the wharf, and then flames? A. Yes, there was black smoke and the flame followed through the planking.

Q. The fire extended further along the wharf and started burning the ship, did it? A. It just went right through then.

40 HIS HONOUR: Q. Where was the point at which you saw the smoke and flames coming up between the planks? Was that about midships of the "Corrimal"? A. Yes, I would say about 15 ft. from where I was, round about the vicinity of midships. It may have

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Examination  
continued

been a few feet either way. I could not be exact on the measurements.

Q. Then you say you saw the fire spread? Was that towards the aft end of the ship or both ways?  
A. It just seemed to go right round. A general upheaval. It burst out and seemed to spread all over the place.

MR. ASH: Q. Had you seen oil on the water, before the fire, underneath? A. Yes, it was lying there for a couple of days or so before.

10

Q. How would you describe it? A. A black thick slime, it appeared to me.

Q. Did you notice it on the piles or on the foreshore at all? A. Yes, when the tide went down it was very visible.

Q. How would you describe these portions you saw lying there when the tide went down? Thin, thick or very thick? A. Yes, it was thick. Very thick patches. There may have been a little bit of space between on different parts of the shore.

20

Q. What about the wharf piles? A. There was oil clinging to those, too.

Q. You noticed that when the tide went down, did you? A. Yes.

Q. You said it was there for a couple of days beforehand, you noticed. Did it remain the same during those two days, or was it getting thicker or thinner? A. It seemed to come in towards the foreshore. The launches coming backwards and forwards seemed to drive it in all round the shore and slipway. It seemed to be driven under the wharf at different various places.

30

Q. Was it worse or the same on the day of the fire than on the day when you first saw it?  
A. It was worse round the edges where it had been driven in. It was thicker.

Q. Around the edges of the shore? A. Around the shore edges.

Q. Around the piles, too? A. Yes, all around the piles. It was clinging to everything.

40

Q. Do you remember any other welders there that day? A. There was a burner.

Q. What was his name? A. Frank Godfrey.

Q. Did you notice anyone on the side of the ship? A. Yes, there was one particular chap on the side of the ship.

Q. Do you recall his name? A. Bill Taylor.

Q. Where was he? A. He would be either on the shell of the ship or on the cabin overhanging the side of the ship.

Q. Was he on a staging or something? A. Yes.

10 Q. If you went underneath his feet through the staging, what would you get to? A. Water.

Q. Was he welding? A. He was welding.

Q. Do you remember a fellow called Hoy? A. Yes, he was a marker-off.

Q. Do you remember his Christian name? A. Ted Houghey, I think.

Q. You remember Hoy, a marker-off, and he was working on the wharf, too? A. Yes. (Leading objected to).

20 HIS HONOUR: Q. Do you remember on this particular day, just before the fire broke out, seeing this man Houghey working there? A. Yes, he worked there as a boilermaker with myself.

Q. With you? A. Yes.

Q. This particular day? A. Yes.

Q. Where? A. He was a marker-off or a plater. He would be all over the ship, as platers do. I cannot remember one particular job where he was working.

30 MR. ASH: Q. I want to ask you some questions. You say you were for some years before this fire working at Mort's Dock? A. Yes.

Q. HIS HONOUR: Q. Off and on, is that right? A. Yes. As the work came in and went out, occasionally we had to change our jobs.

MR. ASH: Q. During that time and up to the time of the fire, did you ever see any debris about that wharf? A. Yes, you always see that.

40 Q. What sort of debris? A. You would see planks. You would see cases. You would see tins. Logs. Whatever the tide brought up washed off the shores.

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Examination  
continued

Q. We have been told the "Corrimal" was tied up there for two or three months at that spot. Where you have a repair job like that, with men on the ship, have you ever seen cotton waste or paper or rags about? A. Yes, cotton waste is used by the fitters. They are employed on the ship.

Q. Have you ever seen them doing anything with it on their hands? A. Yes, and when it gets too oily they shot it away.

Q. Where? A. In the water. 10

Q. Do you use it? A. We have not occasion to use it. We work on dry plates.

Q. You have seen that over the years at Mort's Dock, have you? A. Yes, with the engineers.

Q. What about paper? A. That is a common occurrence, to see pieces of paper lying around. For safety's sake you shot it in the water.

HIS HONOUR: Q. Do you mean if you see a piece of paper near where you are working as a welder, you throw it into the water? A. The usual thing is to double it up and throw it into the water. Roll it up. 20

MR. ASH: Q. As regards welding, did you have any protective precautions with the welding? A. Yes, we always take every care we consider necessary. We usually put tin down, or wet corn bags. Anything to absorb the molten metal.

Q. In your experience at Mort's Dock, working there, does that always catch all the molten metal that comes from burning or welding? A. I would not say all of it, but it would catch at least 90% of it. 30

Q. Have you ever seen any times when a job might be done without those bags or iron underneath? A. Yes, I have done it myself on the steel decks.

Q. Have you ever seen work being done...(leading objected to).

Q. Does that sort of thing occur on the wharf? (Objected to: allowed).

Q. Have you ever seen it done or not done on the wharf? A. No, I am afraid I have not. We have always had that drilled into us for fear of damaging the wharf. 40

HIS HONOUR: Q. You mean to say you have not seen it omitted when the work is done on the wharf, do you? A. Not when there is anything inflammable underneath. Anything that will burn. Machinery or anything at all.

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Examination  
continued

Cross-  
examination

CROSS-EXAMINED:

MR. MEARES: Q. I think you were working inboard of the edge of the wharf doing your welding, roughly 15 to 20 feet? A. In the centre of the crane lines.

10

Q. That is good enough. Would you be of the view if one went round the Mort's Dock Bay today or tomorrow or next week and had a look at the debris, that would give one a fair idea of the debris, the type and quantity there, that existed in 1951? A. If I walked round and had a look? Would you repeat that?

Q. If you had a look around Mort's Dock Bay area now looking at the extent of the debris, and you saw it, would that give you a fair idea of the extent of the debris there in 1951? A. With the wood and piles, and the exception of the oil, it would be the same again.

20

Q. Was Mr. Hoy your mate? A. He was a boilermaker employed there. He was not my mate. I did not carry a mate as a rule.

Q. He talked about his mate Jack? A. He would have an ironworker with him, a plater always does.

30

Q. You would agree with this, wouldn't you, that on the Thursday the oil was better in relation to its quantity, and the extent of it, round Sheerlegs, because on that day it had been tending to blow over towards the drydock? (Objected to: allowed).

Q. Did you hear the question? A. Would you repeat it?

40

Q. On the Thursday was there less oil around, under and about Sheerlegs Wharf, because it was tending to blow towards the dry dock? A. I think it would be about the same as the previous day, because they had launches going from the dry dock sending it all over our way.

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Cross-  
examination  
continued

Q. Is that a clear recollection you have? A. Yes, because at the dry dock ... (interrupted).

Q. Is that a clear recollection? A. Yes.

Q. You made a statement about this happening to Mr. Sharp, the Industrial Officer, didn't you?

A. I would not have. The delegate would have, I suppose; not me.

Q. I am sorry. You made a statement to the solicitor in the case in which you gave evidence some years ago. That is correct, is it not?

A. Yes.

10

Q. In that statement did you say this, "My impression was it would have been safer to work on the Thursday, because it - and I am referring to the oil - was all blowing over towards the drydock". Is that what you said in your statement? I am reading from it? A. I cannot recollect ever saying that.

Q. Would that be correct? A. No, it could not be, because I would not be in a position to make a statement.

20

Q. You are Frederick Kennett? A. Yes.

Q. You live at 11 Abbott Street, Cameray? A. Yes.

Q. You are a welder? A. Yes.

Q. Would you have a look at this document (Shown). It starts off, "On Tuesday and Wednesday....". Then it relates what you did and heard and so on. Do you see? A. Yes. Which part is it?

Q. "In my view there was little difference between the oil in the three days. It was just black stuff that hung around. My impression was it would have been safer to work on the Thursday, because it was all blowing over towards the drydock." Is that what you said? A. It is down here, I suppose. I cannot recall.

30

Q. Did you also tell the solicitor who saw you in the case in which you gave evidence, this, "I heard somebody, I cannot recollect who it was, say 'there is some waste or something burning on the water'". Do you remember that? A. Yes, I distinctly remember that.

40

Q. Is this the fact, and did you make this statement, "We took no notice of it, and it was a considerable time afterwards, approximately an hour,

that we saw smoke coming up". Do you remember saying that? A. Occasionally they sing out there is a bit of waste burning, and we do not take any notice of it.

Q. Did you not say in your statement, this, "We took no notice of it, and it was a considerable time afterwards, approximately an hour, that we saw smoke coming up"? A. I probably could have.

10 Q. And that is your present recollection.  
A. Yes.

Q. When you speak of the practice of welders on the wharf and of the precautions they take, do the oxy acetylene burners take the same precautions? A. Yes, to avoid sparks.

20 Q. And the mast was aft of midships, was it? Or was it roughly in the centre of the Corrimal or was more of it aft or more of it forward of midships? A. It was in the vicinity of midships. I could not say definitely within a few feet.

Q. I take it you never looked on the Thursday or the Wednesday or the Tuesday underneath the wharf? A. No, I would not look underneath, definitely not.

(Witness retired).

No.17

Evidence of R. F. McAskill

RONALD FERGUS McASKILL Sworn, examined, deposed:  
30 MR. STREET: Q. Where do you reside? A. 1 The Grove, Roseville.

Q. You are a consulting engineer in practice as a partner in the firm of Donaghue and Carter, of Jamieson & Lang Streets, is that so? A. Yes.

Q. You are a Bachelor of Mechanical Engineering at the Adelaide University? A. Yes.

Q. And a Bachelor of Electrical Engineering at that University? A. Yes.

Q. You have had some 24 years of professional engineering experience? A. Yes.

40 Q. In the first instance I think you were in the cement industry and later with the steel industry, in various positions with companies, and more recently you have been in practice as you told me? A. Yes.

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Examination  
continued

Q. Your experience in the steel industry was as Chief Combustion Engineer of the Commonwealth Steel Company at Newcastle? A. Yes.

Q. That was a company which, at the time you were with it, had some 3,500 employees? A. That is correct.

Q. And was engaged in the manufacture of armaments? A. Yes.

Q. It was during the War that you were with that company? A. Yes.

10

Q. How long were you there in the position of Chief Combustion Engineer? A. In that position, some three years.

Q. Can you fix the beginning and end of it? A. Yes, from 1942 to 1945.

Q. I think you had two other qualified engineers under you in the Combustion Department? A. Yes.

Q. And some other trainees? A. That is correct.

Q. What was your particular responsibility in the position of Chief Combustion Engineer?

20

A. To see that the fuel used at the works, all fuels, were economically, efficiently and safely used.

Q. What type of fuels were used in those works?

A. Coal. Fuel oil, light and heavy. Producer gas and town gas.

Q. When you say fuel oil, is that otherwise known as furnace oil? A. Yes, or heavy bunker C oil.

Q. Heavy bunker C oil, heavy fuel oil and heavy furnace oil are descriptive of the same type of oil? A. Yes. The words "heavy" and "bunker C" denote a certain amount of viscosity.

30

Q. In 1946 did you become technical assistant to the General Manager of that same company?

A. Yes.

Q. In 1951, until you left the company in 1953, you were the executive officer in charge of plant and engineering at the company, is that so?

A. Yes.

40

Q. In that capacity, were you concerned with, in any way, amongst other things, fuel oil or furnace oil? A. Yes, the combustion engineering department came under my jurisdiction.

Q. For the last ten years you have been in partnership, have you? A. Yes.

Q. In the course of your professional experience as a consulting engineer have you had any concern with fuel oil installations? A. I have.

10 Q. In this country, in this State, since the War, has there been a swing away from coal fuel to oil fuel in industry? A. For our coal industry's sake, regrettably, yes. Quite a swing.

Q. Has that involved quite a lot of conversion jobs from coal fuel to oil fuel. A. Yes.

Q. Have you been concerned from time to time with such conversions? A. Yes.

Q. And the industrial oil fuel which is used in a great many of these plants is similar to the furnace oil ships burn in their furnaces? A. Yes.

20 Q. When you were with the Steel Company, was much fuel oil used? A. Yes, a considerable amount. Some millions of gallons during my time there, and increasing amounts since then.

Q. You are a member of the Institute of Engineers of Australia, are you not? A. Yes.

Q. Are you a Past President of that Association? A. No, I am a Past President of the Association of Consulting Engineers; a different body.

30 Q. You have served on one of the committees of the Standards Association of Australia for the purpose of formulating some standards on contractual matters, haven't you? Nothing to do with fuel oil? A. Yes, the Supply and Erection of Mechanical and Electrical Plant and Machinery.

Q. This Standards Association of Australia, what is it? (Objected to).

Q. Is there a Standards Association code for fuel oil installations? A. Yes.

40 Q. Look at this document. (Shown). Is that the published code which was current in October and November 1951? A. Yes, it was. CD5/50.

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Examination  
continued

(Abovementioned book tendered, Mr. Street indicating he relies on paragraphs 1 and 2, and pp.31 and 32. Tender objected to by Mr. Meares. Book seen by His Honour. Tender rejected).

Q. Are you familiar with the practical manifestations of the properties of oil? A. Yes.

Q. If fuel oil is poured into water it has a tendency to spread, has it not? A. Yes, it will float and spread.

10

Q. And that tendency will continue until the oil has reached what degree of spread? A. I cannot nominate a dimension on degree of spread. But while it can cohere together, that is, there is no wind or wave motion to break it up, it will spread to quite a thin film.

Q. You mentioned wind or wave motion to break it up. Would wind or wave motion have any effect on arresting or expediting this spread? A. One would expect ... (Objected to).

20

MR. MEARES: I will object to this unless my friend puts this witness forward as an expert in this matter.

MR. STREET: I won't press this aspect. I thought it was common ground.

Q. So far as inflammability of oil on water is concerned, have you had any experience of oil on water being ignited? A. Yes.

Q. Where was that? A. At the Commonwealth Steel Company works at Newcastle, and the oil was upon the dam which supplied water to the works.

Q. A freshwater dam? A. Yes, a freshwater dam.

Q. How did the fuel oil come to get on the dam? A. The film came back in the drains after a mishap in one of the mills.

Q. How big was the dam in terms of surface area? A. The dam was an elliptical shape, some 250 feet long on the major axis and some 150 feet wide on its minor axis.

Q. Could you estimate how much oil escaped on to the dam? A. No, I could not estimate that.

Q. Did you see it before it flowed to the dam? A. No, if it had been seen it would not have been given an opportunity to get over the dam.

Q. If you had seen it it would not have had the opportunity of igniting? A. Yes.

Q. How much of the dam was covered with oil?  
A. A little over half.

Q. Was it all on fire? A. No, but it rolled rapidly on that part of the dam which had the oil on it.

10 Q. The part not on fire, what colour would it have been? A. Dark bluish to brownish colour which one associates with oil.

Q. Could you see the water through the oil?  
A. No. I should qualify this by saying this was a return dam that collected recirculated water, and was not clear. It operated with a filter plant, and was a dull colour itself.

Q. Could you form an estimate of the thickness of the oil not on fire when you first saw it?  
A. No, I could not form an estimate.

20 Q. You say the fire spread across the whole of the oil before it finished, do you? A. Yes.

Q. Did you later on carry out some investigation to find out the cause of that fire?  
A. Yes, I did.

Q. Did you reach a conclusion as to what it was that had ignited the oil? A. Yes.

Q. You had an investigation and formed a certain conclusion, did you? A. An investigation was made and a number of matters were put forward and we did come to finality.

30 HIS HONOUR: Q. Was this during the War? A. No, after the War.

Q. About what year? A. This would have been 1948 roughly.

MR. STREET: Q. Have you had any other experience with oil fires? A. Yes.

Q. I do not mean deliberate ones in a furnace, of course. A. Yes, I have. Unfortunately they occur from time to time in hot processes.

40 Q. I am referring to fuel oil. A. Yes. Where one has spillage and a slight mishap occurs, and there is hot metal or sparks around, any source of ignition.

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Examination  
continued

Q. Are there sources of ignition, not regular processes, but haphazard processes which will set oil off? (Objected to: allowed).

Q. What are the circumstances under which you have seen oil igniting in the form of fires? A. I have seen it igniting on the floor or in tanks, where there has been oxy cutting, and there has been foreign material such as waste about, and unfortunately it has come into contact with the oil. These things happen quickly when they happen. 10

Q. When you say waste is about, do you mean in the absence of any other ... (interrupted).  
A. No, I mentioned where there is oxy cutting, some process which would give you a source of ignition.

Q. Are you referring to oil at any particular temperature, or ordinary atmospheric temperature?  
A. Ordinary atmospheric temperature.

Q. Fuel oil? A. Yes.

Q. I think you said you had some experience of oil in tanks igniting? A. Yes, gravity tanks. 20

Q. On the surface of the tank? A. Yes.

Q. In your opinion is there any distinction to be drawn between the inflammability of oil in a tank whether you have 2 ft. solid of oil, or whether you have 18 inches of water and six inches of oil on top, so far as anything coming on the surface is concerned? A. No, in my view it would make no difference, because you get the gases liberated from the oil, which are explosive, and they are heavier than air and will stay on top of the oil. The oil is immiscible with the water and it stays on the water. 30

Q. What is your estimate of the critical thickness or thinness of oil ... (interrupted). A. I do not know what critical thickness or thinness is.

Q. Your experience does not take you to an opinion of a molecular thickness not being affected? A. No, I have dealt with the practical side.

Q. What is the order within which you would find a particular thickness when it would not matter much whether you had water underneath it or not, so far as the igniting of the surface is concerned by some agent falling into it? A. I have myself and I have had my men exercise extreme care where oil has been seen, whether the thickness is known or not. 40

Q. Where it has been seen on the surface?

A. Yes.

Q. Assuming you have a wharf in the harbour something over 600 ft. long projecting out from the shore varying distances, in the order of 30 ft. more or less, 30 to 40 feet, and that wharf is decked in with planks with an inch or half an inch or thereabouts between them and it has quite a number of piles running down to the harbour bed with cross-members also, and along-side that wharf on the land side is a solid bank of land, and on the outside of the wharf is a ship for about 230 ft. of the length of the wharf, and up one end of that wharf there is another wooden structure, a ferry wharf which does not completely blank it off; assume underneath the whole of that wharf there is a quantity of fuel oil of such a thickness that one cannot see the water through it, black fuel oil; in your opinion do those facts I ask you to assume present any risk of fire in the event of any welding or cutting going on on the wharf?

A. In my opinion that represents a grave risk of fire, and I mention here that a precautionary method in preventing fire from fuel oil is to ensure that places where they are are well ventilated. From what you have told me this place would tend to be confined on some of its sides and above, and for that reason I would think it would constitute quite a hazard.

Q. If I asked you to add to your assumption that pieces of waste, cotton waste, and other rubbish may be thrown down from the wharf or the ship on to the water and oil, and also there are pieces of debris floating on the oil-covered water, does that have any effect on your opinion as to the fire risk inherent with the cutting operations going on? A. Yes, a hot spark falling on the debris could ignite it, and warm up the surrounding oil and set the oil on fire.

Q. I am asking you to direct your opinion to circumstances and knowledge as you had it in 1951. Do any of the answers you have given me up to this time, and the opinions you have expressed depend on anything you have learned since 1951? A. No. I cannot say I have not benefited from experience, but I have not learned anything since 1951 that would change the views I have expressed.

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Examination  
continued

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Examination  
continued

Q. With oil under the wharf in the situation I have put to you, if a piece of metal which flew off from the cutting operation were to fall straight on to the oil which had nothing underneath it except water, in your opinion would that set the oil off? A. With reasonably good fortune it should go straight through, if it did not hit anything to make it stay long enough to ignite those gases which come up.

Q. Have you seen an experiment conducted of the dousing of a cigarette put in a bucket of petrol? A. I have seen this done, not as an experiment, by a boilermaker in a mine, where a cigarette is plunged into a can of petrol with no worry.

10

Q. The cigarette goes out? A. Yes, but it must go straight in.

Q. Does the same principle apply with a red hot spark dropping into water covered with oil? It would not ignite? A. Not if it dropped quickly enough.

20

Q. A little bit of metal dropping 10 or 12 ft. would be unlikely to ignite the oil? A. Yes.

Q. As with the cigarette going into the can of petrol? A. Yes.

(FURTHER HEARING ADJOURNED UNTIL WEDNESDAY,  
13th FEBRUARY 1963.)

13th February  
1963

IN COMMERCIAL CAUSES

Nos. 3000 & 3001 of 1955

CORAM: WALSH, J.

THE MILLER STEAMSHIP CO. PTY. LIMITED

v.

VACUUM OIL CO. PTY. LIMITED,  
CALTEX OIL (AUST.) PTY. LIMITED and  
OVERSEAS TANKSHIP (U.K.) LIMITED

30

R.W.MILLER & CO. PTY. LIMITED v. SAME

SIXTH DAY - WEDNESDAY, 13TH FEBRUARY 1963

CORRECTIONS: P.293 - "Hoy" wherever appearing,  
should be "Houghey".

RONALD FERGUS McASKILL, Examination continued

MR. STREET: Q. You are still on oath as from yesterday. A. Very well.

Q. You will remember that I asked you some questions yesterday as to your views about the inflammability or otherwise of oil collected under a wharf, and I then asked some questions about the dropping of little metal fragments through a film of oil on the water. In your industrial experience, can you tell me what, if anything, is done when oil escapes so as to collect in the form of a film or a puddle?

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Examination  
continued

10 A. Yes. The primary object is to remove it, on land. The orthodox method is to cover all the oil with sand. It is absorbed into the sand and the sand is shovelled away and the floor or space, wherever it is, is cleaned out afterwards.

Q. What is the purpose of that being done?

A. To ensure that there can be no oil remaining on a floor, so that there could be no possibility of a fire, from a source of ignition.

20 Q. Are the precautions or other remedial measures such as you have told me, taken regularly or only sometimes? Is there any practice, variable or invariable, frequent or infrequent, in relation to cleaning up oil if a puddle forms anywhere? A. Yes. All plants which are safety-conscious, and that represents most these days - (Objected to.)

Q. Could you answer this as from your experience?

30 A. Yes. The plants I have been concerned with have been safety conscious. Regular inspections are carried out.

Q. And any accumulations of oil are disposed of?

A. Yes.

Q. Have you, from time to time, particularly while you were at Commonwealth Steel in Newcastle, been to ship dock and repair yards? A. I have visited them, yes.

Q. You have seen the type of welding and cutting which goes on at those repair yards? A. Yes.

40 Q. The Court has been told that this cutting operation is one which results in little sparks being emitted from the iron or metal being cut? A. That is true.

Q. What is the range of throw of those sparks? (Objected to).

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Examination  
continued

Q. Do the welding operations which you have observed in these establishments differ in any way at all, from welding operations seen elsewhere in engineering undertakings, so far as the equipment and the manner of its operation are concerned?  
A. You are speaking of welding?

Q. I am sorry, oxyacetylene cutting? A. No. They differ very little.

Q. It is a standard form of industrial process, is it? A. The same gases are used and the same tools. 10

Q. I ask you in general as to the throw of the sparks which are emitted when oxyacetylene torches are being used for the purpose of cutting metal, as observed by you? A. The throw of the sparks is normally dependent on the size of the cutter being used, which is dependent on the thickness of the plate on which one is working.

Q. If one takes a boiler plate of, say, half an inch, being cut say, two feet six inches to three feet up from the floor surface, what throw of sparks - A. The spark could be expected to hit the floor and bounce up into the air again, three feet, half-inch plate. 20

Q. What radius have you observed those sparks ultimately to cover? A. They would normally go in the line of the cut, in the longitudinal axis. They will spread sideways. There will not be any radius.

Q. Do they leave the metal sheet with the ordinary force of gravity, or are they blown out of it? A. They are blown out with force of the gas assisting. 30

Q. You have observed operators using these oxyacetylene torches, I take it, on many occasions?  
A. Yes.

Q. Do these torches, from time to time, cut out whilst in use? A. They do not go out. They are extinguished by the operator, to save gas, when he finishes a cut. 40

Q. By what means are they re-lit? (Objected to; allowed.)

Q. By what means are these torches re-lit?  
A. They are either lit by flints and spark, which

is provided by the Company at times, or else the oxy cutter more commonly keeps with him a smouldering piece of rope which will burn all day, and he merely puts the oxy nozzle to the rope and he turns on the gas and it ignites straight away, without him having to fiddle with matches or the flint igniting.

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1963

Examination  
continued

Cross-  
examination

CROSS-EXAMINED:

10 MR. MEARES: Q. Apart from the incident of oil burning on a dam, which you related yesterday, your experience of oil burning other than in engines, has been limited to incidents in industry, on land, in buildings? A. Primarily, yes.

Q. Solely? A. No.

Q. You referred to seeing oil burning - A. Might I explain? I only said No because all oil burning is not in buildings always.

20 Q. You said you have seen, on occasions, oil that had been allowed to escape, burning. Apart from the incident on the dam, you have seen that in industrial undertakings on the land, in buildings? A. I have seen it in buildings, yes.

Q. Have you seen it ever outside buildings - ever - that you can recollect? A. No. I do not think I can recall it.

30 Q. And you are of the view that if oil is contained in any way in a fashion that there is no ventilation over its surface, it is more dangerous than oil not so contained? A. Yes, providing there is an ignition agent present.

Q. And I suppose without dealing with any extraordinary examples, for that reason oil in the open would be less of a fire hazard than oil in confined spaces? A. I do not see why.

Q. Is that a considered view? A. Yes, providing you have the correct circumstances for fire to take place.

40 Q. No. I put the question to you, generally speaking. A. If the oil is -

Q. Generally speaking, will you agree with me that oil in a confined space, unventilated, is more of a fire hazard than oil in the open?

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Cross-  
examination  
continued

A. If the confined space is unventilated and it is fully filled by the oil, there is no possibility of the hazard being there.

Q. If the oil is in a confined space unventilated-  
A. With air above it?

Q. - with air above it, would you agree with me that, generally speaking, if it is unventilated it presents a greater risk, generally speaking, than oil in the open? A. Yes.

Q. I think you expressed the opinion, did you not, that oil under the Sheerlegs Wharf would be more dangerous than oil in the open because, in your opinion, underneath the Sheerlegs Wharf would be unventilated? A. I would expect that to be more hazardous than if it were in the open. I was asked to assume that the oil was confined there, if you recall.

10

Q. And the opinion you expressed was upon the basis that the oil under the wharf and its vapours, were unventilated? A. Inadequately ventilated.

20

HIS HONOUR: Relatively speaking, not totally unventilated.

MR. MEARES: Q. Have you made any inspection of the Sheerlegs Wharf? A. Not in recent years. I have seen the photographs and I have seen the wharf from the Harbour.

Q. Are you aware of the usual flash point of fuel oils? A. The range of them, yes.

Q. What is it? A. They will vary, up to as high as 170 degrees Fah. possibly higher in some cases.

30

HIS HONOUR: Q. From what? A. The Fuel Oil Storage Act comes in at 150 degrees Fah. Some lighter oils are below that, the heavier types of distillates which are used in certain boilers around the City.

MR. MEARES: Q. Will you agree that the flash point of fuel oils used in bunkering ships, varies between 150 and 220? A. Those are written in some of the offers, but the American Navy specification is 150.

Q. Would you agree that the flash point of fuel oils used for bunkering ships varies between 150 minimum and 220 maximum? A. I have not ordered oil for bunkering ships, and I have not ordered oil up to 220 flash point.

40

Q. So you would not be able to answer that question? A. Not in ships, no.

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Q. You apparently have given some consideration to the question of the inflammability of oil. I want to read you something and I will tell you what I am reading from. A. Yes.

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10

Q. It is from a manual for the safe handling of inflammable and combustible liquids issued by the United States Coastguard on July 2, 1951 and, it is a manual which is written, amongst other things, for the information of personnel on tank ships. A. Yes.

Cross-  
examination  
continued

Q. Speaking of oils, derivatives of oils, and that includes petrol, does it not? A. Yes.

Q. Would you agree that generally speaking there is, in the knowledge of those concerned with the problem of handling oil and its derivatives, a classification of oils and other substances known as "inflammable"? A. Yes.

20

Q. And that a second classification is "combustible"? A. Yes.

Q. A separate and distinct classification is "combustible"? A. Yes. Inflammable material is also combustible. That is the distinction, really.

Q. Will you agree that fuel oil with a flash-point of 170 degrees Fah. Pensky-Martens test, would be fairly described as combustible? A. Yes.

Q. Do you know the Pensky-Martens test? A. Yes.

30

Q. Have you ever done one? A. Yes.

40

Q. Would you agree with this statement in relation to the handling of combustible oil: "Combustible liquids are relatively safe to handle and include such petroleum products as kerosene, light and heavy fuels, lubricating oils, etc."? I will put it to you again: "Combustibles are those which will give off inflammable vapours only above 80 degrees Fah. Combustible liquids are relatively safe to handle and include such petroleum products as kerosene, light and heavy fuel oils, lubricating oils, etc.". Would you agree with that? A. Certainly, if proper precautions are taken.



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Cross-  
examination  
continued

Q. I put those words to you precisely, and I will read them again: "Combustible liquids are relatively safe to handle and include such petroleum products as kerosene, light and heavy fuels, lubricating oils".

MR. STREET: It is a double proposition my friend is putting.

HIS HONOUR: I thought the question simply was whether the witness would agree with that statement. If he agrees with it, very well. If he agrees with part of it and disagrees with part of it he can say so.

10

WITNESS: I agree they are all safe to handle if proper precautions are taken, as is the electricity you use.

MR. MEARES: Q. Try and answer the question, and I will split it. Will you agree that combustible liquids are relatively safe to handle? A. Yes.

Re-examination

RE-EXAMINED:

MR. STREET: Q. You agreed with Mr. Meares' suggestion that fuel oil you would regard as combustible? A. Yes.

Q. Would you regard fuel oil as inflammable? A. It does not come within the scope of the Inflammable Liquids Act.

Q. But whether it is within the scope of the Act or not may be another matter. Do you regard it as inflammable? A. It is possible to set fire to it simply.

HIS HONOUR: It is a question of definition of terms, I should think. If you define an inflammable oil as being one which will ignite at a certain temperature and you exclude from inflammable oils all those which require a higher temperature, then we know what we are talking about. But if you are just using it, so to speak, as an English word, it might be quite different. It is a matter of definition of your terms. Similarly, when he is asked to agree with a statement about oils being relatively safe, once again what precisely does that mean?

40

MR. STREET: Now that he has finished his evidence I can perhaps draw attention to the conjunction of kerosene and lubricating oil in the one category, which my friend put to him. (Witness retired).

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Evidence of H. W. Pye

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 Evidence

No.18

H. W. Pye  
 13th February  
 1963  
 Examination

HORACE WENTWORTH PYE Sworn, examined as under:

MR. STREET: Q. What is your full name? A. Horace Wentworth Pye.

Q. Your residential address? A. No.12A Livingstone Street, Burwood.

Q. You are the Chief Fire Officer of the New South Wales Fire Brigade? A. That is correct.

Q. Is that your correct title? A. Yes, Chief Officer.

10 Q. How long have you been in the Fire Brigade Service? A. Just on 37 years.

Q. That is, may I take it, the whole of your adult life? A. I joined in 1926. I will be 37 years in the Service on 12th March next.

Q. During the course of your service in the Fire Brigade, have you been concerned throughout with problems of fire, its prevention, control and extinction? A. Yes.

20 Q. And you have graduated up through to your present - A. Right through the ranks from junior, to the top of the Fire Service.

Q. Does the Fire Brigade Service extend to cover fires in the Harbour and on rivers, as well as to fires on land? A. The responsibility for fire protection on the Harbour is one that is under the Maritime Services Board but, in the event of fires on ships and other fires in the Harbour, we are usually called and if we attend we take charge of such fires.

30 HIS HONOUR: Q. You mean you are called in to help, although it is not really your responsibility? A. We are called in to help and the Maritime Services Board work under the Fire Brigade if we are called in.

MR. STREET: Q. If you are called in, you take charge? A. Yes.

40 Q. Are you familiar with what is described as ships furnace oil or ordinary fire, furnace oil? A. Yes. We know of it and we do come across it on a number of occasions with fires, various grades of furnace oil.

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Examination  
continued

Q. I am referring not to crude oil as such, but to furnace oil which has had the higher fractions refined off it? A. Yes.

Q. Furnace oil of 170 degrees flash point or higher? A. Yes.

Q. Are you familiar with oil of that nature? A. Yes.

Q. Have you, from time to time, during your service, carried out tests on the inflammability of oil of that nature? A. Yes, during our drill periods. We have drills regularly twice a week and give demonstrations to the junior firemen of the extinguishment of various types of inflammable liquids, oils and different other things they are likely to come in contact with in the course of their duties.

10

Q. So far as concerns this particular furnace oil I have described to you, in the case of those drills is a quantity of that oil ignited and then extinguished as the drill? A. Yes. We use trays of various sizes, three feet square, ranging up to about eight feet in diameter.

20

Q. Would you describe the trays in a little more detail? A. The sizes of the metal trays depend on the type of extinguisher we are going to use. For instance, with a small tray about three feet square, we put some water in the bottom, put the inflammable liquid on top and demonstrate the use of various types of hand chemical extinguishers. With the larger trays, where the quantity of inflammable liquid or oil would be in excess of what an extinguisher could be put on, we use hose lines, diffuser nozzles and branch lines and the like.

30

Q. If you take a big tray and are going to set it up for a test or drill on furnace oil of the type I have described -

MR. MEARES: Do they use this furnace oil?

WITNESS: We do not actually use it in the Fire Brigade, but we get various grades, heavy oils and that sort of thing, for demonstration purposes. We float it on the water and we ignite it and let it burn for a while, to demonstrate how you can put it out either by water jets or by foam jets.

40

MR. STREET: Q. Tell me first of all of the big tray. When you are going to set that up for a test of one of the specimens of furnace oil which you say you collect for the purposes of these tests -

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HIS HONOUR: Q. What size did you say the big tray is? A. Up to nine or ten feet in diameter.

MR. STREET: Q. How deep? A. About a foot, 12 or 14 inches deep.

Examination  
continued

10 Q. You have said water is put in - A. We fill it to about half-full with water and pour the oil over the surface of it and ignite it.

Q. First of all, is there any range of thicknesses of oil which you pour over the water?

A. It is probably up to eight or ten gallons. In some cases it may be more, so that you have a good coverage of the oil over the surface of the water.

20 Q. Can you tell me from your experience, what is the minimum thickness that you can get your film of oil down to in this test, and still be able to ignite it? (Objected to.)

MR. STREET: I make it clear to the witness I am only asking about furnace oil of the type I have described.

MR. MEARES: I am in a little difficulty as to whether the witness is aware of quite the type of oil which is relevant.

30 MR. STREET: I am concerned in particular, in fact for the moment concerned solely with furnace oil which has been refined - not the crude oil with all the higher fractions - furnace oil which has been refined to a flash point in the vicinity of 170 degrees Fah.

HIS HONOUR: Q. Do you know what is meant by a description such as that, that is by reference to its flash point? A. Yes.

40 MR. MEARES: I wish to take objection to this evidence. The validity of tests of oil has been dealt with by a scientific witness, and when he says he uses oil of such-and-such a flash point I will accept him. Perhaps there will be further evidence as to what happens to oil under certain conditions of heat. But, so far as this witness is concerned I propose to

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Examination  
continued

take the formal objection that unless he can prove the flash point of the oil he used, then the evidence is inadmissible. Would Your Honour please understand that I do not seek to exclude any valid scientific tests?

HIS HONOUR: I will allow it, as he says he knows the sort of range of oil of which you are talking.

MR. STREET: Q. Directing your mind solely to that type of oil, you have told me that eight or ten gallons would be a quantity which might be used in the test such as you have described -

10

HIS HONOUR: Q. Have you ever measured - in any way and, if so, in what way, the thickness of the film of oil on the water, when these tests have been carried out? A. We do not measure it to a fraction. We have a tray of the size I mentioned and, depending on the size of the fire and the type of extinguisher we are going to use, we may put in five, ten or twenty gallons of oil. We do not exactly measure the thickness of the oil that spreads over the surface of the water.

20

MR. MEARES: (ON VOIR DIRE) Q. Have you ever measured the flash point of the oil that has been used in these tests? A. No. We accept the flash points - (Objection renewed; allowed).

MR. STREET: Q. Have you been able, at any stage, to make any estimate, from your observation of the film of oil which results from the pouring of such a quantity as you have described? A. The thickness in some cases could depend on the specific gravity of the oil. For instance, if it is a very heavy oil and you want to cover it, there is a greater thickness on the water than if it is a fine grade of oil. The general idea is to see that the surface area of water is well covered with oil, so that you can use the various means of extinguishment to put it out.

30

Q. Cover so that you cannot see the water through the oil? A. Cover so that you cannot see the water through the oil, and the thicknesses would vary, I would say, with the light oils probably 1/16th of an inch, up to a quarter or more with the heavier oils.

40

Q. Coming back again to this particular type of oil to which I have asked you to confine your attention, what means is used in your tests to

ignite it? A. Usually when a heavy oil is placed on, to ignite it or get it burning as we require it to carry out the fire tests, we pour some petrol on top of it or light a piece of waste saturated with petrol and throw it on the oil and leave it burn for a little while, before it eventually sets the whole of the surface alight. It takes some little time with the heavier-grade oils to get the fire going.

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Examination  
continued

10 Q. On the occasions when you ignite it with a piece of waste, as you have described, you say that you throw that on to the oil, do you?

A. Yes.

20 Q. What do you observe from then on? A. It gradually burns and the fire gradually spreads until the whole of the surface is covered. It sort of spreads out, from where this might float across the surface of the oil, until the whole of the surface is covered. Once it reaches that stage, so the intensity of the fire increases.

Q. Whereabouts are these tests done - in the open or in a building? A. Out in the open.

Q. Have you noticed whether, if there is any breeze or wind, that affects the way in which the waste ignites the oil? A. That does, and of course the spread of fire generally tends to go in the direction in which the wind is blowing.

30 Q. The whole purpose of that is, of course, to light it up so that you can put it out?

A. That is the idea, yes.

40 Q. Are you able to express an opinion whether furnace oil of the type I have described to you, floating under and in the vicinity of a wharf, a wharf running along the Harbour foreshore, with the land behind it and the Harbour on the outside, a wharf in the vicinity of 600 ft. in length, with a ship about 200 ft. long lying alongside it, constitutes a fire danger? A. In my opinion, it is a potential fire danger. The oil in itself would not be a danger unless there was some source of ignition.

Q. What sources of ignition, in your opinion, would result in that light taking fire? A. Well, it would require a fair amount of heat to ignite

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Examination  
continued

the surface of it, and if there were any combustible materials with which the oil came in contact, they would become more readily ignitable by the absorption of oil, if the oil was there sufficiently long enough. Combustible materials become more readily ignitable when saturated with oil, so it really needs something, I would say, more than a spark. You have to build up the fire until you bring the oil up to its ignition point. There is a big difference between the flash point of oils and the ignition point. You can heat oils up and get the various ranges of flash point, but that is not sufficient to light a body of oil, and that heat has to be sustained before you will set the surface of the oil alight.

10

Q. I have put merely the wharf and the oil under it. I want you to now assume that the wharf is of such construction that the planks are separate by half an inch or three-quarters of an inch, something of that order, not a regular spacing between each, but separated planks in the order I have mentioned; and that on the wharf ship repairing activities, involving the use of oxy-acetylene cutters and welding are carried out. Does that affect your opinion as to the existence of the fire danger of which you have already told me? A. I would say that if the welding operations which were being carried out were such that the droppings from the welding and that were falling on the oil or any other materials which may be floating on the oil, it would create a position where it would be likely that the oil would be ignited.

20

30

Q. I want you to assume, taking again the assumption I put to you of a wharf built in the way I have described - back against the land, with planks separated as I have described, with the ship of a size I have described lying alongside it, with welding or cutting operations going on on the wharf - and then I want you to assume that some hundreds of feet away a quantity of furnace oil is discharged into the Harbour in such a way that it will float down and accumulate under that wharf so as to completely cover all the water under the wharf, so that you cannot see the water, in a black film. Would you have any views as to the danger in discharging oil in such circumstances as I put to you? (Objected to.)

40

Q. Have you, during your experience, ever been concerned in a fire which was caused by oxy torches or welding? A. Yes. There was a case during the Wartime. I was on loan to the Commonwealth Government and I was serving at Garden Island at the time. I think it was about 1942 or 1943. There was a ship there being fueled with oil, and the tank was up on the hill at the back, and something happened to the fuel line - a fracture - and the oil spread over the wharf adjacent to the ship under repair and there was quite a deal of welding and plate cutting going on on the wharf. There were hot plates, where they were cutting out sections of boiler plate, and the oil ignited there.

10

HIS HONOUR: Q. On the wharf? A. On the wharf.

Q. Not on the water? A. No. Some of it ignited. When the pipe broke it spilt over on to the wharf and there was, quite close to where they were doing the welding operations, a fire where there were some sticks, where they used to boil the billy, and the chain of events set the oil alight.

20

MR. STREET: Q. You said that these cutting operations were going on on the wharf? A. Yes.

Q. What was the particular agent which ignited the oil -

MR. MEARES: I do not mind, if it is of any assistance to Your Honour, but I suppose he got there after the fire started. However, if it is of assistance to your Honour, I do not object.

30

HIS HONOUR: If he knows he can say what caused the fire to start.

WITNESS: I was not there when the fire actually started. I was in another part. The cause of the fire was due to the hot plates, where it came into contact with the furnace oil. There was no other source of heat there.

HIS HONOUR: Q. The hot plates? A. The hot plates and this fire where there were boiling some billies.

40

MR. MEARES: Q. Those were the only sources of ignition? A. Yes.

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H. W. Pye

13th February  
1963

Examination  
continued



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No.18

H. W. Pye

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Cross-  
examination

CROSS-EXAMINED:

MR. MEARES: Q. The fire at Garden Island of which you spoke, was one that took place after quite a substantial quantity of this oil had escaped?

A. Yes. It had spread out. The pipe broke and it ran along the wharf.

Q. Garden Island was then being run by the Commonwealth Authorities? A. Yes.

Q. And, apparently, you tell me, after it spread, they kept on welding? A. No. I did not say they kept on welding.

10

Q. After the oil spread, they kept on welding? A. No. The oil was cleaned up. Where they were welding and cutting plate, they ran away when the fire spread. There was no one there.

Q. Before the fire started, we have the oil spread? A. Yes.

Q. You say the cause of the fire was either the fact of welding on the hot plates, or this billy fire, or a combination of both? A. Yes.

Q. So that, without any question, the probabilities would be, would they not, that they were welding when the oil was spilt? A. When the oil was spilt they were there welding, yes.

20

Q. And it was because of the welding when the oil was there, that you think probably the fire was caused? (Objected to.)

Q. It was because of the welding when the oil was there that you think the fire was probably caused? A. I did not imagine there would be welding when the oil was there.

30

Q. You simply do not know? A. No, I was not there when the fire started and there would be no one in the centre of the oil, because I think it spread pretty quickly, and there would be no welding operations being carried out while the oil was spreading out.

HIS.HONOUR: Q. What do you mean when you refer to the hot plates? A. They have torches and they are cutting hot boiler plates. They may be cutting sections out with a burner. Those hot pieces will drop out and lay on the ground. There may be a number of welders cutting at the time. There would be plates right on the ground or on

40

the wharf, the concrete of the wharf, which were virtually red-hot all round, because they would be just cut out and dropped down - quite a deal of welding and cutting operations going on at one time.

MR. MEARES: Q. You were good enough to see Mr. Yuill, a solicitor from Norton Smith & Co. a short time ago? A. I do recollect seeing him.

10 Q. I am going to read some views you expressed to him. Tell me whether you agree with them. Did you express this view, that fuel oil is difficult to ignite but it is possible to obtain ignition if there is some substance in the oil which is capable of producing sufficient sustained heat? A. Yes. I did say to Mr. Yuill-

20 Q. I do not want to suggest that what you have said to him is inconsistent, but I just want to get whether you agree with that as being a fair statement of what you said. First of all, did you tell him fuel oil was difficult to ignite? A. I said it was more difficult than lighter oils; the heavier the grade, to bring it up to its burning point is more difficult than with the lighter grade.

Q. I put to you that you expressed the view to him that it was difficult to ignite? A. If you take it in its context, I would say No. I did not express it that way.

30 Q. Did you ever use the expression to him that it was difficult to ignite? A. I said it was more difficult than the heavier oils. I said there were various grades of oil and commencing from the inflammable liquids of various classes which will ignite at ordinary atmospheric temperatures, as the grades get heavier it takes more sustained heat to bring them to the ignition point.

Q. Did you tell him it was possible to obtain ignition if there was some substance in the oil capable of producing sufficient sustained heat? A. Yes.

Q. "I would not think that a match or even sparks from any oxy welding torch would themselves create ignition unless there was present some other factor which would be capable of providing the necessary sustained heat over a period"? A. I did say that, yes.

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continued

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Cross-  
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Q. Did you say this also, "The fire at Morts Dock (so far as you were aware when you saw him) is the first actual case where fuel on water caught alight" - to your knowledge? A. It was the first fire that we had had involving fuel oil on water.

Q. And did you say this, of course, increased your knowledge of the potential danger of this particular fuel? A. I do not know whether I expressed it exactly in those terms, but we gain our practical experience from fires.

10

Q. If I may, without debating whether or not you used those words, would that be a fair statement of your views, that this fire increased your knowledge of the potential danger of the oil? A. It supported the views we had already had in view of the tests we carried out.

Q. Did it increase your knowledge of the potential danger of the particular fuel? A. The potential is always there. It increased my knowledge of what actually happens, or supported the view that I always held, that it could be ignited or that it is a potential fire danger.

20

Q. Did you express this view as to what you would have said at the time of the fire: "If I had been asked at the time, I would have been of the opinion that there was some danger, the danger being very much less, of course, than with a fuel with a lower flash point," and did you add, "Anyone who carried on working before the oil had been dissipated would be taking a calculated risk"? A. Yes.

30

Q. There is now, is there not, a method of dissipating oil on water? A. Well, the only way we know - there are probably detergents and other things which will dissolve it - but if we were asked to break it up we would break it up with jets of water and sort of emulsify the oil. You have to get heavy jets of water and break up the oil on the surface and form it into an emulsion where it will dissolve and go away. It is very difficult.

40

Q. Do you know of a substance called carbo-sand? A. No.

Q. Do you know of a detergent which has been devised in the last few years to thin it out? A. I know of the existence of various types of detergents which will remove the substance.

Q. Do you know of a detergent that they have tried out in the last few years, which had some degree of success called Gremlin? A. I have heard of a gremlin, but not used in that sense.

Q. I used the wrong word - Gamlin? A. I do not know it, no.

Q. When you say emulsifying it with a hose, under pressure, do you mean by that a fire hose? A. Yes.

10 Q. Something big? A. You would need to have a fair amount of pressure behind it and a good jet of water to break it up and form an emulsion.

Q. Have you ever seen that successfully done where the oil has been in very large quantities? A. No.

RE-EXAMINED:

20 MR. STREET: Q. Mr. Meares asked you a number of questions about a conversation you had with Mr. Yuill. Did you express to Mr. Yuill any opinion that you held as to the events of this particular fire? (Objected to; withdrawn.)

Q. Did Mr. Yuill mention any particular fire to you? A. The only fire we were actually discussing was this particular fire.

Q. This fire at Mort Bay, in 1951? A. Yes.

\* Q. Tell me what opinion you expressed to Mr. Yuill in relation to the events which led up to that particular fire? (Objected to.)

30 MR. MEARES: If it is thought that I have put something to the witness out of its context, I am prepared to show my friend this statement that I have, that he gave to Mr. Yuill. I cannot do more than that.

40 MR. STREET: I disclaim any suggestion of my friend having been unfair or having distorted anything in his cross-examination. I do not suggest that for a minute I decline my friend's offer. I would not seek to check up on my friend. I am merely seeking to ascertain what else the Chief Officer offered Mr. Yuill in the way of his opinion.

HIS HONOUR: Maybe you are not entitled to get the whole of this conversation. I do not know whether what has been asked him is the whole of what he said on some particular subject matter

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Re-examination  
continued

as distinct from some other, or what. I just do not know.

MR. STREET: That is the risk the cross-examiner takes.

HIS HONOUR: I will allow your question.

(Question marked with asterisk on p.321 read. Objection renewed; allowed.)

WITNESS: We did discuss the events that led up to the fire, commencing from the fact that some fuel oil had been spilt on the water and had eventually floated up to the wharf.

10

HIS HONOUR: Q. You were asked what opinion you stated to Mr. Yuill about the events of the fire. A. My opinion was in regard to the fire, or the events that led up to the fire, that some source of ignition had occurred and that it had built up sufficiently, and that there had been sufficient heat generated, and it was sustained for a sufficient time to ignite the fuel oil which was on the surface of the water.

20

MR. STREET: Q. Did you have any discussion with Mr. Yuill as to the presence of absence of a fire risk in connection with this oil? (Objected to; allowed.)

HIS HONOUR: Q. What did you say on - A. I did say that the oil on the water was a potential fire risk and, in view of the fact that there was some heat there at that particular time, it would increase the risk. It would have been only if some operations were carried on which had a heat potential.

30

(Witness retired.)

No.19

S. L. Diamond

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Examination

No.19

Evidence of S. L. Diamond

STANLEY LEICHHARDT DIAMOND Sworn, examined as under:-

MR. STREET: Q. Your name is Stanley Leichhardt Diamond? A. Yes.

Q. You live at No.3 Carlyle Street, Wollstonecraft? A. Yes.

40

Q. You are a retired master mariner? A. Yes.

Q. You went to sea in 1906, in sail, and I think subsequently around about the time of the First War, you moved over into steamers? A. Yes.

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Q. You obtained your square rig Extra Master's Certificate in 1920? A. Yes.

S. L. Diamond

Q. The Court has been told what an Extra Master's Certificate is. A Square Rig one is, in addition to the ordinary Master's qualifications, a qualification to command a sailing ship? A. To command any ship that proceeds to sea.

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Examination  
continued

10

Q. It is one - A. Sail or power driven.

Q. A Square Rig Certificate - A. - covers everything.

Q. Sail and steam? A. Yes.

Q. I think you were at sea as a serving officer in ships, until 1932; for the last six years you were at sea you commanded your own ships for the E. & A. Line? A. Yes.

20

Q. Vessels in the vicinity of 5,000 and 6,000 tons, cargo vessels? A. Passenger ships.

Q. Trading principally on the Australia to Japan run? A. Yes.

HIS HONOUR: Q. E. & A.? A. Eastern & Australian Steamship Company.

MR. STREET: Q. Was the "Canton" one of its pre-war ships? A. "St. Albans", "Arafura", "Tanda", "Kanowna".

30

Q. In 1932 you left the E. & A. Line and you joined the Queensland Coast & Torres Strait Pilot Service? A. That is so.

Q. And you remained a pilot in that Service until your retirement in 1960? A. Yes.

Q. And that Pilot Service supplies pilots for ships proceeding up through the Barrier Reef, from Sydney or Brisbane, up to Thursday Island? A. And through the North East Channel to New Guinea.

Q. And it involves voyages, under pilotage, of three to six days? A. That is so.

40

Q. I think in your 28 years as a pilot in that Service, you piloted over 1,000 ships? A. That is so.

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Examination  
continued

Q. Over a million tons of shipping altogether?  
A. That is so.

Q. And I think you did receive some Civic honour in that regard. Amongst other things, you piloted the Queen in the "Gothic", in 1954? A. I had that honour.

Q. What types of ship did you pilot? A. Everything from a small ship to a ship of 34,000 tons, of all classes, passenger, cargo and tankers.

Q. When a pilot in this Service goes on board, there is a cabin there that he uses, is there?  
A. That is so. 10

Q. I suppose in the course of the few days you spend on the ship, you are in constant contact with the Master or deck officers of that particular ship? A. Most of the time.

Q. Talking and so on, as well as doing your job, chatting on the Bridge about matters of common interest to seafarers? A. Yes.

Q. Could you tell me whether fire is a topic which you have heard discussed, from time to time, on ships that you have been on, yourself, and piloted?  
A. Many times. 20

Q. Is it a topic of any importance to seafarers? (Objected to; rejected.)

Q. Have you ever discussed fire hazards with master mariners? A. Many times.

Q. Fire hazards in relation to ships and the sea? (Objected to; rejected.)

Q. Have you ever discussed with ships' masters or officers, the inflammability of ships' furnace oil? (Objected to; rejected.) 30

Q. Ships normally have a certain amount of water, splashing about in their bilges, do they not? A. Yes.

Q. Had you ever, from your experience at sea, any opinion as to whether or not there is any danger of fire if furnace oil gets down into the bilges? A. Always we have had that fear, therefore the bilges were endeavoured to be pumped out. 40

Q. Have you yourself ever seen furnace oil on the surface of water, on fire? A. Only during the War, with a torpedoed vessel.

Q. What were the circumstances of that?

A. The circumstances were that she was torpedoed, caught on fire. Everybody was wiped out in this vessel except three who happened to be in the engineroom. She steamed ahead and kept on steaming, leaving her flame behind, and when the fire worked aft they evacuated the engine room and jumped over the side and were picked up badly burned. I remember that occasion.

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Examination  
continued

10 Q. When you say she steamed ahead leaving her fire behind, exactly what happened, exactly what was she leaving behind? A. She was leaving oil on fire, a trail of oil behind her.

Q. Burning on the water? A. Burning on the water.

Q. Apart from that instance, have you ever heard of any other occasion, or read in the newspapers of oil on water burning? A. Yes.

20 Q. Before 1951? A. Yes, during the late War, a ship in Fremantle.

Q. I will not trouble you with the details. You mentioned a ship in Fremantle? A. Yes.

MR. MEARES: If it is the "Panamanian", you can lead.

WITNESS: The "Panamanian".

MR. STREET: Q. You had read about that, had you? A. I had read about that and how it happened.

30 Q. Had you heard, before 1951, the "Panamanian" fire being discussed between other seafarers, or between yourself and other seafarers? (Objected to.)

Q. You say you read about it? A. I read about it.

Q. In what? A. Well, we heard about it, being at sea during the War. It passed around.

Q. Just tell me what you read about it in, the type of literature in which you read about it? A. The paper.

Q. The newspaper? A. The newspaper.

40 Q. You have told me of precautions that are taken in relation to the bilges, where oil may come down, where there is water. Can you tell me of any other particular precaution, or any



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Examination  
continued

particular equipment which you have observed on ships, in relation to the risk or the consequences of fire burning in the water surrounding the ships?  
A. No, only what I have read in the paper.

Q. Have you ever observed lifeboats with any particular fittings on them? A. I beg your pardon?

Q. Can you tell me about lifeboats which have particular fittings? A. Yes. B.P., during World War II, they were fitted with a canopy right over the top of the lifeboats and there was a pump in the lifeboat that sucked from underneath and then it had a spray over the top of the canopy, like a garden spray only much stronger. When they lowered the boat into the water, having perhaps the oil on fire, the boat sunk through the oil and the bottom of the boat, being in saltwater no oil was pumped, and sprayed all over her, and the lifeboat was able to steam through the fuel on fire, to safety. That was the Anglo-Iranian Oil Company.

10

(Short adjournment.)

20

MR. STREET: Q. You are still on oath. What in your opinion, or do you have any opinion as to the presence of any element of danger in permitting furnace oil to escape over the side of the ship, when bunkering in port? A. A fire hazard.

Q. I suppose you have been concerned in many bunkering operations in your seafaring time?  
A. Yes.

Q. Amongst the ships you have piloted, have there been any tankers? A. Many tankers.

30

Q. (Approaches witness.) I want to show you part of the chart of Sydney Harbour. I am showing you Exhibit A. and draw your attention to Mort Bay. You do know, I think, Mort Bay? A. Yes.

Q. You have known it for many years? A. Yes.

Q. I must ask you to direct your mind back to 1951 and to the circumstances as they existed in 1951. Can you do that for me? A. Yes.

Q. You will remember that the Mort's Dock itself is no longer operating, has ceased operating?  
A. So I have read in the newspapers.

40

Q. When you expressed an opinion to me as to there being a fire hazard if furnace oil escaped when bunkering in port, is that an opinion you have recently formed, or did you hold that opinion

in and before 1951? A. Have always held the opinion that it was a fire hazard.

Q. I want you, in any opinions you express, so to speak not to be wise after the event, in reference to the Mort's Dock fire? A. Yes.

Q. I want you to assume that lying at the Caltex Oil berth in Mort Bay there is a ship which is taking furnace oil on into its bunkers, that the furnace oil discharges from the ship in circumstances with which I need not trouble you, furnace oil discharges from the ship something before 4.00 a.m. one morning that by 8.00 a.m. on that morning it is observed to be lying, or a quantity of furnace oil is observed to be lying in the top part of Mort Bay, and I am indicating a line from the south-western corner of the Sheerlegs Wharf to the southern gate of the Balmain Dock, that oil is lying in that pocket bounded by the shore and that line -  
A. Yes.

Q. - oil described as a black film of such a thickness that one cannot see the water through it - A. Yes.

Q. - the quantity of oil which was discharged was such as to at least create that much oil in Mort Bay. A. Yes.

Q. Later in the morning the oil was observed to be underneath the Sheerlegs Wharf. A. Yes.

Q. Would you have any opinion as to whether a discharge of furnace oil in that quantity and in that particular geographical situation, presents any element of danger? A. I think we would consider - (Objected to.)

HIS HONOUR: Q. You. A. I would consider, as master of a ship, that it was a grave fire hazard.

MR. STREET: Q. You said you knew Mort Bay in 1951, when the dock was operating? A. Yes.

Q. I take it you know Sheerlegs Wharf? A. Yes.

Q. And the operations of welding and so on that go on there? A. Yes.

Q. Have you been past Mort Bay or into Mort Bay in ships? A. I have been.

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Examination  
continued

Q. Have you ever taken a ship to the Caltex Oil berth, or taken a ship from that berth? A. No.

Q. Going back to 1951, do you remember the Adelaide Steamship Company's premises? A. Yes.

HIS HONOUR: Q. In 1951 and for some years before that, you were working up on the northern coast, were you not? A. No. I was working from Sydney. Our base on the Torres Strait Pilot Service was Sydney and Thursday Island, and we returned to Sydney after every pilotage.

10

MR. STREET: Q. I think the ship owner flies you back to Sydney after you have done the voyage? A. No. From Brisbane to Sydney we paid our own passages. But we came back to base, as most of the shipping running through the Torres Strait left south of the Queensland border, so we joined the ships in Sydney, sometimes in Melbourne, sometimes in Kemble.

Q. Back in 1951, can you recollect the Adelaide Steamship Company's premises in Mort Bay? A. Generally, yes.

20

Q. So far as appearance from, we will say over at Ballast Point, is concerned, could you identify the nature of the use to which those premises were put? (Objected to.)

HIS HONOUR: Q. Have you ever, from Ballast Point or its immediate vicinity, looked across to where is the Adelaide Steamship place? A. Yes, I have.

MR. STREET: Q. Were you able to identify the nature of the use to which those premises were put - (Objected to) - in 1951? (Objected to; allowed.)

30

Q. Could you tell me what was the nature of the premises that the Adelaide Steamship Company had there? A. Overhauling premises, a ships' overhauling premises.

Q. With a wharf? A. With a wharf. Sometimes I have seen two ships lying there side by side.

Q. Was that identifiable as to what you described as a ships' overhauling premises, from observation over the other side of the Bay? A. Yes.

40

Q. (Approaches witness). From the vicinity of the oil wharf at Ballast Point, have you ever looked up the Bay or could you tell me, looking up the Bay,

whether or not you were able to identify the particular type of premises lying up on the north-western corner of the land? A. To my seaman's eye, it was obviously an overhauling bay.

Q. Does that observation have any bearing upon the opinion you have expressed as to the existence of an element of danger in a discharge of furnace oil - (Objected to.)

10 Q. Have you been in and out of Mort Bay very frequently over the years? A. Yes, quite frequently in the earlier years.

Q. I suppose since your retirement in 1960, you have not? A. I have not been there.

Q. Can you tell me whether you have ever observed any debris or floating material in Mort Bay? A. Yes. In all these Bays there is debris; in all of these Bays that are semi-enclosed.

20 Q. You would describe this Bay as semi-enclosed, would you? A. Yes.

Q. In the summertime, is there any prevailing wind which one finds in the vicinity of Sydney Harbour? A. North-east, Easterly, winds.

Q. And would they have any effect on accumulations of debris, for example -  
A. The Easterly and North-Easterly wind would drive any debris up the Bay.

CROSS-EXAMINED:

30 MR. MEARES: Q. When you say that winds would drive up any debris up the Bay, I take it you mean, do you, that with a North-East wind there would be a tendency for debris lying around the head of the Bay to be driven up?  
A. Yes.

Q. I suppose you have known of the Morts Dock fire for many years? A. I beg your pardon?

Q. You have known of the fire at Morts Dock for many years? A. No.

40 Q. When did you first hear of it? A. Lately.

Q. Who told you? A. Who told me? I do not know - general discussion.

Q. Was it in connection with this case that you heard it? A. No. I heard it before.

Q. When? A. Late, but amongst seafaring men.

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Cross-  
examination  
continued

Q. When? A. I cannot give you a date.

Q. What, a month or two ago? A. Yes.

Q. And prior to that you had never heard of the fire? A. No, I had not.

Q. But you had heard of the "Panamanian" fire?  
A. Yes.

Q. And prior to coming to give evidence you know, do you not, that both of those fires, the "Panamanian" fire and the Morts Dock fire, as far as you can gather, were caused by some lighted object in the water? A. That is so. 10

Q. Have you ever been on a vessel which has spilled oil in the water? A. Yes.

Q. Which one? A. One that I can remember, the "Ormiston".

MR. MEARES: Q. Which one? A. One that I can remember, the Ormiston.

Q. When was that? A. 1932.

Q. Where did she spill oil? A. In Darling Harbour. 20

Q. Large quantities? A. The quantity I would not know - quite enough to make a mess in the water.

Q. And what did the Ormiston do, do you know?  
A. We got hoses and endeavoured to disperse it.

Q. Were you successful? A. Oh, semi-successful.

Q. You described, did you not, the existence of oil on water, as a fire hazard - is that right?  
A. Yes.

Q. What do you mean by a "fire hazard"? A. That anything outside of my knowledge only in the matter of fire, would set it alight. 30

Q. Will you put that again? A. Any fire would set it alight - not being an oil expert I would not know the flash point or anything. All I looked on it was as a fire hazard.

Q. You said that any fire - ? A. Yes.

Q. Would set it alight? A. Yes; any fire under circumstances.

Q. What do you mean by "any fire"? A. Well, such as if I may quote the Panamanian, a bag on fire thrown over the side amongst the oil. 40

Q. Yes; anything else? A. Matter in the water and sparks falling on it and setting it on fire, would perhaps set the oil on fire.

Q. You are not, by any chance, being wise after the event, are you? A. No; only that we look on all oil as a hazard.

Q. No, please, I did not ask you that. You have dealt with those two factors. Is there any other method of setting it alight? A. The only method that I can think of is fire - fire itself - or any molten metal.

Q. Molten metal? A. Yes.

Q. Molten metal doing what? A. An oxy-acetylene burner and an electric welder.

Q. Doing what? A. Ship repairs.

Q. Yes, but how does it set the oil on fire? A. By falling on debris and setting the debris on fire and the debris setting the oil on fire.

Q. All very simple, is it not? A. I would not know.

Q. When you know that that is how a fire has happened? A. Yes.

(Witness retired).

No.20

Evidence of F. Murcheson

FINLAY MURCHESON Sworn and examined:

MR. STREET: Q. Is your name Finlay Patrick Murcheson? A. Finlay Murcheson.

Q. And you live at 12 Park Avenue, Avalon Beach? A. Yes.

Q. I think you first went to sea in the early part of the century? A. Yes.

Q. And you got your Master's certificate in 1910? A. Yes.

Q. A square rig master's certificate? A. Yes.

Q. You were at sea in ships in which you were serving until 1921? A. That is right.

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No.20

F. Murcheson

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Examination  
continued

Q. And in 1921 you came ashore and were piloting in Sydney Harbour until 1942? A. I was in Newcastle for the first few years and then I was transferred to Sydney as a pilot.

Q. When did you start piloting in Sydney? A. I was 21 years pilot altogether. 1933 I came back to Sydney. I went up to Newcastle in 1923 and I came back to Sydney in 1933.

Q. And then you were a pilot in Sydney in 1933 to 1942? A. Yes, that is right. 10

Q. And in 1942 you were, for a few months, Assistant Harbour Master? A. For ten months.

Q. Then you were appointed Harbour Master of Sydney, a position that you held for ten years, until 1952? A. Yes, that is correct.

Q. And in 1952 you were appointed a Commissioner of the Maritime Services Board - on the Maritime Services Board? A. Yes, that is right.

Q. And you remained a Commissioner on the Board until 1955, when you retired? A. Yes, that is correct. 20

Q. And since your retirement you have been appointed or you were appointed as a nautical assessor both for the State of New South Wales and for the Commonwealth Courts? A. That is correct.

Q. And you have sat on many occasions, both in State and Commonwealth Courts, on enquiry - sat as assessor? A. That is right.

Q. I think you have now passed the retiring age for assessors also? A. There is no retiring age for assessors. I was again approached this year and re-appointed assessor for the Commonwealth and also the State. 30

Q. And you still are on both panels? A. Yes. Would you like to know my age? 73.

HIS HONOUR: Q. 73? A. Yes.

MR. STREET: Q. I want to direct your mind back to a fire which occurred, or to some events in 1951 - October 1951. At that particular time I think you were in England on leave? A. That is right. 40

Q. When I say "at that particular time" I mean at the time of the fire in Morts Bay you were in England on leave? A. Yes, that is right.

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Q. During the time of your seafaring experience in ships and more particularly while you have been piloting and Harbour Master, have you had any experience of oil fires? A. I had a lot of experience - during the time I was Harbour Master.

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10 Q. Fires on the harbour or on ships - matters which were of concern to you as Harbour Master? A. Very much so.

Examination  
continued

Q. What was your particular duty in relation to any fires on the Harbour? A. I would give instructions to the fire floats to attend fires, and I had all sorts of fires; I had fires from oil and fire from other debris. I think I averaged for part of the time a fire a month.

20 Q. And when you say an average of about a fire a month, that is all sorts of fires you are talking about? A. All sorts of fires, yes.

Q. And would any of those be oil fires? A. Well, there is one in my mind that started up at Cockatoo Island. It was oil that was discharged from an American L.S.T. during the latter end of the war, and the fire was on the water, and extended from the entrance to Cockatoo Dock to very near to Spectacle Island. It did not actually reach the Island.

30 Q. That was one particular fire of oil on water that you call to mind? A. Yes.

HIS HONOUR: Q. When was that? A. Well, my memory is not as good now.

Q. Was the war still on? A. No; it was just before the war finished. This ship was being serviced by Cockatoo Island and she allowed oil to escape on the waters of the port.

40 MR. STREET: Q. And have you known of other fires of oil on water, apart from that? A. Well, there has been a number of smaller fires, but I cannot recall the time or the incident, because there were so many fires, and I had to take action on all fires.



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Examination  
continued

Q. Do you have any opinion as to the consequences which might flow from furnace oil getting on to the waters of the harbour in any quantity? A. Yes, I have. As a matter of fact, oil in the harbour worried me more than any other part of my work and-

Q. What factor about the oil? A. When the oil was allowed to escape on the waters of the port.

Q. You say it worried you? A. More than anything else.

Q. Why did it worry you? A. The danger of fire from it. 10

Q. Did you have any particular practice that you followed if you heard of oil on water in the port? A. If a fire started I was rung up immediately and I used to give instructions to the fire floats to proceed to the scene of the fire and put kapok booms round the area of the fire to keep the oil in the smallest area; otherwise it would escape over all the waters of the port.

Q. You say that you would give those instructions, in what circumstances? A. When the oil was reported to have spilled into the harbour. 20

Q. Whether it was on fire or not? A. Yes, because if I had left it alone there probably would have been a fire, so I kept it in a certain area, and if it was very thick we used to have scoops to put it into a punt, and we frequently spread ashes on the oil and it sank to the bottom and cleared the area. Do you follow what I mean?

Q. Yes. As a matter of fact, I do not know whether I do. I take it that from your length of time in Sydney Harbour you know Morts Bay? A. Yes. 30

Q. I show you Exhibit "A" (shown to witness). It is known, of course, that within the last few years or since 1951, Morts Dock is no longer operating? A. Yes.

Q. But going back to the situation in 1951, that was before you finished your term as harbour master- can you picture Morts Bay in those circumstances? A. Yes, it was a very busy corner. Ships were going in there practically every other day for the dry dock and ships were laid up on the fitting-out wharf and the sheerlegs wharf and getting repaired. 40

Q. From the point of view of anybody bringing a ship - I withdraw that. While you were a pilot did you ever bring ships into Ballast Point oil wharf or take them out? A. Frequently.

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Q. From the position of a ship lying at the Ballast Point oil wharf, is it possible to see the surroundings of Morts Dock? A. More or less - you can see right up to the Balmain Dock from the oil wharf - that is from the bridge; from the deck you might not be able to see it.

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Examination  
continued

10

Q. What about from the bridge of a 10,000 ton tanker? A. Yes.

Q. You could see right up to the Balmain Dock? A. Yes.

Q. Did the premises of Morts Dock & Engineering, going round that corner (indicating) - did they have any of the characteristics of a shipping repair yard? A. Yes, it was a ships repair yard. There was the big crane there. Ships were there all the time being repaired.

20

Q. Was it identifiable to you as a ships repair yard, to you as a Master Mariner? A. Yes.

Q. On this oil wharf there was a discharge of tanker oil or furnace oil shortly before four o'clock one morning, which by eight o'clock in the morning was seen to lie in the pocket of the bay from a line running from the south-west corner of the sheerlegs wharf across the southern edge of Balmain Dock lying in a black film so thickly that one could not see the water through it - or so thinly that one could not see the water through it - the discharge before 4 a.m. seemed to be lying on the top corner but by about 8.0 a.m. and later the same morning seemed to be lying near the sheerlegs wharf - ? A. Yes.

30

Q. Would you regard such a discharge of oil - what would you have to say about it? A. Great danger from fire.

40

Q. You have, from time to time, observed the nature of the work going on or the nature of the industrial operations being done or that were done on the sheerlegs wharf? A. Yes.

Q. Was there anything in the nature of those industrial operations which was peculiar to the sheerlegs wharf or special to Morts Dock in any way? A. Yes; at the sheerlegs wharf there was

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continued

a lot of welding going on and repairs of all descriptions there.

Q. How would that compare with what was going on at, say, Cockatoo Dock - the fitting out wharf?

A. Well, outside the Cockatoo Dock there is a bigger area of water than that corner of Morts Bay.

Q. There is a fitting-out wharf at Cockatoo Dock?

A. Yes.

Q. And are there oxy-acetylene cutters and welders on the fitting-out wharf at Cockatoo Dock?

A. Yes; there were in my time. 10

Q. And on any ship at the fitting-out wharf or repair wharf does one find oxy-acetylene cutters?

A. Yes.

Q. You, of course, were away in England when this particular event happened? A. Yes.

Q. But so far as Morts Bay itself is concerned-?

MR. MEARES: He was in England when this particular fire occurred?

HIS HONOUR: Yes; he said that earlier. 20

MR. STREET: Q. So far as Morts Bay is concerned, can you tell the Court anything about whether the water in Morts Bay is clean, or what have you got to say about it? A. It is practically the dirtiest part of the harbour, because it is a dead-end or cul-de-sac, because of the ebb and flow of the tide and the stuff keeps in there more than any other part of the harbour.

Q. That is because of the configuration of the Bay, is it? A. Yes. Well, you can see that it is a dead-end, and it is only the rise and fall of the tide that has any effect on any debris that is on the water. 30

Q. And is it a characteristic that debris does collect in dead-end parts of the harbour? A. Yes.

Q. Or dead-end parts of harbours? A. Yes. We had a launch going round picking up stuff from the harbour -

Q. I do not think I can have that. That is not within the rules. You told me that dead-ends of harbours are places where debris does collect? 40

A. Yes.

Q. And Morts Bay is such a dead-end, you say?  
A. Yes.

Q. You have mentioned a number of oil fires - fires of oil on water - that you have been concerned with in your official capacity. Were any of those before 1951? A. Yes. The one that frightened me most was the one I spoke to you about, from Cockatoo, and although I cannot remember the extent there was another fire from oil on the harbour.

10

Q. You have already said that you can remember a number but you cannot remember the details?  
A. Yes.

CROSS-EXAMINED:

MR. MEARES: Q. I want to show you a signature on a file. (Document shown to witness). A. That is Capt. Lockett's, the Officer in Charge of the Fire Brigade.

Q. And would you have a look at a further signature (indicating). A. That is the engineer in chief, Mr. Bickford.

20

Q. I want to show you a report of the Maritime Services Board, made within 9 days of the occurrence? (Objected to).

HIS HONOUR: I will allow you to take it so far as showing the witness the report.

MR. MEARES: I think I have gone as far as I want to with showing him the report, except to ask him to identify the date on it.

30 HIS HONOUR: Yes.

MR. MEARES: Q. Do you see the date on the bottom of the report - the 9th November 1951? A. Yes.

Q. Do you see that? A. Yes.

Q. And I suppose I should, in fairness, point out a green stamp on the top of it - ? (Objected to; pressed; admitted).

Q. And the stamp on the top of it is the 20th November 1951, do you see that? A. Yes.

40 Q. And would you agree that this report is a report by officers in the Maritime Services Board? A. Yes.

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Cross-  
examination  
continued

MR. MEARES: I am going to ask permission to put a particular passage in the report to this witness and ask him whether he agrees with it? (Objected to; pressed; argument ensued).

HIS HONOUR: I think that if you have some narrative of facts that are alleged to have happened there I cannot allow this except if there are some opinions expressed. I think I will allow the witness to answer whether he agrees with those opinions.

MR. MEARES: Q. Would you agree with this view, on or about that date, namely November of 1951, after the Morts Dock fire - "Briefly there is little we can do with any oils except benzine because it will not evaporate or when washed from one position merely becomes a menace in another area resulting, of course, in further complaints and requests to again move it on"? (Objected to).

10

HIS HONOUR: It is about on the border-line, but I will allow it.

MR. MEARES: Q. Would you like me to repeat it?  
A. No, it is quite all right.

20

Q. Would you agree with that? A. To some extent, but I feel -

Q. Please - would you agree with it? A. No, not altogether.

HIS HONOUR: He said "to some extent but not altogether".

MR. MEARES: Q. I will take it step by step. "Briefly there is little we can do with any oils except benzine"? A. Well, we tried -

30

Q. No; would you agree with that? A. No, I would not. I mean we brought it up with the hose - we confined it in a small area.

Q. Then you would be of opinion that this view expressed, "Briefly there is little we can do with any oils except benzine", is wrong, would you?  
A. It is to a certain extent wrong. After all, I was Harbour Master of Sydney. I was responsible, not the Engineer in Chief or Capt. Lockett.

HIS HONOUR: Don't worry about that.

40

MR. MEARES: Q. Would you agree with this, that the reason for the problem was "Because it will not evaporate and when washed from one position merely becomes a menace in another"? A. Well, the

menace is there, certainly, but I am certain we were looking at it from the pollution angle because we had so many complaints from the public.

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Q. From the pollution angle? A. Yes.

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Q. After this fire took place? A. Well, people ring up all the time complaining of the dirtiness -

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10 Q. Were you aware that this spillage was known to the Board five hours after it happened- (Objected to; pressed). A. I could not tell you. I was not here. (Argument ensued).

Cross-  
examination  
continued

HIS HONOUR: I do not think you can prove that fact in this way. I do not think you could by the rules of evidence in any event, because, as he rightly says he was not in Sydney.

MR. MEARES: Q. Do not answer this until it is ruled on. Have you ever made inquiries as to what, if anything the Maritime Services Board did in connection with this spillage - ? (Objected to).

20 Q. In your official capacity in the Board? (Objected to). A. Not with -

HIS HONOUR: Wait a moment. (Question not pressed). Very well, the question is withdrawn.

MR. MEARES: Q. Are you suggesting that in 1951, in November, there was available to the Board means of eliminating a fire hazard caused by oil on waters in the barbour? A. There was not anything available that was absolutely perfect, but we did take action in breaking it up and confining it in a small area.

30 Q. Have you seen a large area of oil? A. Yes; I have seen it from Gore Bay right down to Ball's Head.

Q. And do I take it that you, as Harbour Master, would have the duty of doing what you could if you saw oil in the harbour, to get rid of it? A. Yes; I would try to.

40 Q. And are you suggesting that after you dissipated it in the manner you have suggested, by means of water, it did not again coalesce in other places? A. We did not dissipate it; we did everything to break it up. For instance, when it is all congregated in the one place

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Cross-  
examination  
continued

there is every likelihood of fire from it, but when you break it up there is less of a fire hazard, and furthermore when it was very thick we used to use scoop to scoop it into this punt that we used around the harbour.

Q. Were these facilities available in November 1951? A. I am sure they were, but I was not here then.

Q. And was this method of putting ash on it available in 1951? A. Yes. 10

Q. And whose responsibility would it be, in the Maritime Services Board, to take these steps?

A. The man that relieved me - the Assistant Harbour Master, Captain Simpson of the Maritime Services Board.

Q. Capt. Simpson? A. Yes. ~~I am sure he would have taken any action -~~

MR. MEARES: I ask that that be struck out.

HIS HONOUR: Yes; strike it out. 20

MR. MEARES: Might I put it in another way? You feel that he would have done everything he could have done? (Objected to; rejected).

Q. Did you ever do anything as Harbour Master by way of warning people around the foreshores of any fire danger? A. Yes.

Q. Did you? A. Yes. If you like, I will tell you -

Q. No.

HIS HONOUR: Just a moment, will you try just to answer the questions that you are asked, please? 30

MR. MEARES: Q. So that if you saw oil and you thought it was a fire danger you yourself personally, or by delegated power, would warn people on the foreshores of the fire danger?

A. Yes; not so much the people as the shipping.

Q. As the what? A. Shipping - the ships at the wharves.

Q. The ships at the wharves? A. Yes.

Q. Can you remember any case of there being a spilling of oil which extended over a vast area of the harbour - ? A. Yes. 40

Q. In your time? A. Yes; I -

Q. Now would you tell me, because I want to know this particularly - A. Well, -

HIS HONOUR: Just a moment.

MR. MEARES: Q. Could you tell me when it was?

A. Oh no; you are asking me something - it was during my time as harbour master and it was during the war period.

10 Q. During your time as Harbour Master and during the war period? A. Yes.

Q. Was this the L.S.T. spillage? A. No, this was petrol, not the L.S.T.

Q. Can you remember when that was approximately, realising that there is a difficulty for you?

A. I have retired eight years and I cannot remember.

Q. Can you remember the area of the spillage?

A. Yes, from the Atlantic Union Oil Company right over to the Pymont Wharves.

20 Q. During the war? A. Yes.

Q. And it was spilled, was it, as a result of bunkering at the Atlantic Union Wharves?

A. No. You must know that during the war period there were inexperienced engineers and officers put in charge of some of the ships, and when they started pumping petrol or oil they opened the wrong cock and spilled it.

30 Q. This fire that you mentioned previously was in connection with spillage from Cockatoo Dock, was it? A. Yes.

Q. And how far did it spread? A. More than half-way along to Spectacle Island.

Q. Was it more than a substantial spillage of oil? A. Yes; it must have been to spread so far.

Q. And was it diesel oil? A. Well, it was bunker oil; I suppose it was diesel oil.

40 Q. Could you tell me the capacity - the number - of your booms with respect to containment of a particular area of oil?

A. I cannot follow you.

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Cross-  
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continued



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Cross-  
examination  
continued

Q. Supposing I had a spillage the size of this table (indicating). Do you follow me? A. Yes.

Q. I take it that you have booms that would contain that? A. Yes.

Q. Now what is a boom? A. These booms were kapok canvas things with a weight on the bottom to put them down about two inches, and they were about four inches above the water.

Q. Did you have any amount of this stuff?  
A. Yes, we had dozens and dozens of lengths about 20 or 30 ft. long. 10

Q. And can you remember ever using those booms?  
A. Frequently.

Q. What would you do - would you take them out in a launch? A. Yes; two or three launches if necessary.

Q. And spread them round? A. Spread them around the area of the oil.

Q. And it was your responsibility to see that that was done? A. Not to see - to give instructions. I could not be everywhere at the one time. 20

Q. It was your responsibility to direct it to be done? A. Yes.

Q. How many times did you have occasion to spread ashes? A. Well, if the oil was to remain in there for any length of time - you see, when the booms were put around small quantities used to escape through the rise and fall of the tide, through the sections of the booms - they were perhaps an inch or a couple of inches apart when they were tied together or lashed together and eventually the oil would get away with the action of the tide, but if it did not get away we used to try and get rid of it by using ashes, or if it was thick we used to use scoops. 30

Q. I do not think you are answering the question. I asked you how many occasions did you use ashes in your time as harbour master. A. It is impossible for me to say.

Q. When you put those booms around, did it remain stationary or did it float and move with the wind and the tides? A. There was a certain amount of movement with the wind and the tide, but the inner part would be tied to a blooming wharf or shore. 40

HIS HONOUR: Q. You had it tied to something?

A. Yes, tied to something.

MR. MEARES: Q. Supposing you wanted to contain some oil in the middle of the harbour, what would you do? A. Well, put the booms all round it and have the launches to pull it, if you wanted to. There is a big drift of the tide in Sydney Harbour.

10 Q. You would put your boom in the middle of the harbour? A. Yes.

Q. And would you leave it there for a time? A. Yes.

Q. You do not tow it? A. No, you do not tow it.

Q. And I suppose the boom drifts? A. Yes, well to a certain extent, it must drift with the tide, but the oil drifts with it.

Q. Subject to the leak you have mentioned? A. Yes; subject to the leakage.

20 Q. And was oil on the waters of the Sydney Harbour a fairly constant problem with you when you were Harbour Master? A. Yes.

Q. And how long were you Harbour Master? A. Ten Years.

Q. And may I take it that in that period of ten years - I am not suggesting that you had the problem every day - but it was a problem that you had to face up to fairly frequently in that period of time? A. Yes.

30 Q. And the spillage was by no means an infrequent occurrence? A. Well, I do not know what you mean by "infrequent", but it did happen fairly often, with the result that I had to charge them with a breach of the regulations for allowing oil to go into the water.

Q. And the only fire you can recollect on the Harbour as a result of spillage was which fire?

A. The Cockatoc Island one was the one that I had in mind myself because it went so near to Spectacle Island.

40 Q. And that was about 1945 at the end of the war? A. Yes. 1944 or 1945.

Q. And that of course was dieseline? A. Yes, dieseline.

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Cross-  
examination  
continued

Q. In the whole of your experience in the Maritime Services Board - would you just tell us about it again?

HIS HONOUR: This is in the Board now?

MR. MEARES: Yes.

Q. What years? A. I was 21 years a pilot -

HIS HONOUR: No - in the Maritime Services Board.

MR. MEARES: He would be employed by the Board as a pilot.

HIS HONOUR: I see.

10

WITNESS: I started off with the old Navigatinn Department, and when the Maritime Services Board came into being I transferred over to them. I was a pilot with them for 21 years. Then I was transferred to Newcastle as Harbour Master, and brought back to Sydney as Deputy Harbour Master.

MR. MEARES: Q. From 1933 you had experience with the Board or its predecessor in Sydney - from 1933 until you retired, is that right? A. Yes.

Q. During the whole of that time did you have any experience with any fire anywhere in the harbour as a result of the discharge of fuel oil? A. Well, there was one at Pyrmont. I forget which ship it was. I know I charged them with a breach of the regulations. A fire started and we got it out very quickly.

20

Q. First of all, when was that - very roughly?  
A. I cannot remember.

HIS HONOUR: Q. Was it during the time you were harbour master? A. Yes.

30

MR. MEARES: Q. Was it fuel oil? A. Yes, fuel oil.

Q. Are you sure? A. Positive.

Q. Which kind of fuel oil? A. This black stuff. I am not familiar with fuel oil.

Q. All you knew was that it was black oil? A. Yes.

Q. And those are the only two you can remember?  
A. Yes.

Q. Now let me take you to over the whole of your life? Were there any other fires caused by oil anywhere in the Harbour? A. No. If you would like me to say if I knew any other oil fires, I knew plenty.

40

Q. Would you mind answering the question. If you do not understand it, say so. Now would you answer it? A. I do not know of any in Sydney, because when we took action -

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MR. MEARES: Will Your Honour direct the witness to answer the questions.

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HIS HONOUR: Yes; please answer the questions.

Cross-  
examination  
continued

10 Q. MR. MEARES: I suggest to you that the Maritime Services Board did not regularly take this action that you suggest at all? What do you say to that? A. It all depended on what the amount of the spillage was -

Q. So that if the spillage was a minor spillage nothing was done? A. There was something done. For a small spillage the Engineer used to be sent up there with hoses to break it up. Those were my orders all the time to the superintendent.

20 Q. Leave out when you were Harbour Master and take before that and subsequent to it - did the Maritime Services Board do anything about oil on the water? A. How would I know? I was pilot.

Q. And thereafter? A. After I took over I was very concerned with fires in the port.

Q. Well, being concerned with fires in the port when you were one of the Commissioners - this was prior to Brigadier Edwards' time, was it?  
A. Yes; Edward was an Engineer in my time.

30 Q. Did the Commissioners issue any instructions or directions to Harbour Masters as to what was to be done? A. No; the Harbour Master -

Q. Please answer the question.

HIS HONOUR: The answer is "No".

MR. MEARES: Q. Or to anybody else? A. Not as far as I know.

Q. And the Harbour Master was responsible for this thing? A. Yes.

Q. And you say that you, as a Commissioner, as a result of your experience, were very worried about oil? A. Yes.

40 Q. And its hazards? A. Yes.

Q. And no instructions were issued by you to any harbour master when you were Commissioner in relation to what was to be done as to oil spillage? A. There was no need for me.

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Cross-  
examination  
continued

Q. May I take it that there was no need because the Harbour Master took action to get rid of oil?  
A. When I was Harbour Master -

Q. May I put this to you, that anybody in 1951 with a knowledge of the Harbour could be expected to know that in the case of oil spillage the Maritime Services Board would act promptly?  
(Objected to; pressed; admitted).

Q. Anybody with a knowledge of what went on in the harbour would realise, would they not, that the Maritime Services Board acted promptly? A. Yes; they invariably did. 10

Q. And would also appreciate that it was a question which concerned the Maritime Services Board? A. Very much so.

Q. And may I take it that the action that you have told His Honour of, of "booming" the oil, of trying to emulsify it and of putting ashes on it, was carried out for two reasons, firstly because of its fire hazard and ultimately because of its pollution properties? A. Yes; the pollution came into it. (The word "emulsifying" objected to). 20

". Well, may I alter the expression of "emulsifying" and put "breaking-up"? A. Yes.

Q. And is your answer still the same? A. Yes.

Q. And I suppose the greatest source of complaints that the Maritime Service Board received in relation to oil spillage was pollution? A. Yes; there were complaints about that.

Q. You know Morts Bay well, do you? A. Very well. 30

Q. And would you say this, that an inspection of Morts Bay in this year of grace, in regard to debris, would show a somewhat - a similar amount of debris as you would have seen in 1951 or 1941? A. It would not, because there is not the work being carried out there.

Q. Where is not the work being carried out?  
A. Well, Morts Dock is not working in the way it was in my time.

Q. Apart from that, is there any difference? A. Well, you take the sheerlegs dock - 40

Q. Apart from Morts Engineering is there any difference? A. I could not tell you. I have not been up there for years.

Q. Well, what you put was this, as I understand it - correct me, if I am wrong - that this Bay, as a result of the north-easter and prevailing winds, was a bay in which debris was blown into?  
A. There would be a certain amount.

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Cross-  
examination  
continued

10

Q. Well now, the position in regard to that debris would be just the same as it was in 1951, would it not? A. Yes, debris that was blown in, but that was a small quantity in comparison -

Q. But you were asked, were you not, about the debris, and you made a point of the fact that it was a sort of trap where the debris was blown in?  
A. Yes; it is a corner where it remains.

Q. So that that provision would not alter over the years, would it? A. No, it would not alter - it would, to this extent, that the work is not carried on there and stuff to the same extent is not thrown into the water.

RE-EXAMINED:

Re-examination

20

MR. STREET: Q. You were asked by Mr. Meares whether spillage of oil in the harbour was a frequent occurrence? A. Fairly frequent.

Q. And I take it in endlessly variable quantities? A. Yes; little bits.

Q. Were there many big spillages on the Harbour - what would you say as to that?  
A. Well, the one I spoke about before, from Gore Bay down to Ball's Head - that was a very big one, and it was right up into Snail's Bay.

30

Q. That is across the other side? A. Yes.

Q. And many discharges of oil that you recollect were in quantities comparable with that? A. No; that was one of the largest we had.

(Witness retired).

(Luncheon adjournment).

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AT 2.15 P.M.

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continued

(On resumption Mr. Ash handed to His Honour a document which he stated were the amended particulars of claim, in which he had consolidated the two actions. Mr. Meares stated that he would like to have a close look at the amended particulars of claim, but at first sight he did not think that they were going to cause him any inconvenience, and he asked His Honour to reserve the question of costs. Mr. Meares further asked His Honour's leave to consider whether there was any inconvenience caused, in which case he might have to make application at a later date.)

10

HIS HONOUR: I will allow the particulars of claim to be amended, so that the document handed up becomes the particulars of claim subject to the right of Mr. Meares later to make submissions as to the effect that this amendment may have on the costs of the actions, and subject to any application he wants to make as to adjournment or otherwise in relation to any changes made.

20

(In reply to a query by His Honour, Mr. Meares stated that the amended particulars of claim would require a change in the form of the particulars of defence. His Honour then said that at some time counsel should gather together the issues as formulated by the particulars of claim and the particulars of defence, in one document.)

30

No.21

S.W.E.Parsons

13th February  
1963

Examination

No.21

Evidence of S. W. E. Parsons

STANLEY WILLIAM ENOS PARSONS Sworn and examined:

MR. ASH: Q. You reside at 6 Shepherd Road, Artarmon?  
A. Yes.

Q. What is your present occupation? A. Consultant Technical Engineer, or Chemical Engineer.

Q. To trace your background, you are an Associate of the Sydney Technical College in Chemistry? A.Yes. 40

Q. From 1916 to 1959 you were firstly an analyst, and then an inspector, and then a technical officer in the explosives department of the Department of Mines? A. Yes.

Q. From 1917 to 1919 - I see that that period overlaps with the one I put to you, is that correct? From 1917 to 1919 you were the Explosives Chemist at Her Majesty's Factory at Gretna? A. Yes.

Q. Where is that? A. Scotland.

HIS HONOUR: Q. That is where Gretna Green is, is it? A. Yes.

10 Q. And your duties in the explosives department covered technical advice on explosives?  
A. Yes.

MR. MEARES: Q. The Scottish Department of Mines?

MR. ASH: Q. Was it the Scottish Department of Mines? A. No. I was employed by the New South Wales Explosive Department of the Department of Mines, but during the first war I was sent abroad between 1917 and 1919.

20 Q. I should have completed the sentence - on explosives, inflammable liquids and dangerous goods? A. Yes.

Q. Part of your duties required the investigation of questions regarding inflammable liquids and dangerous goods? A. Yes.

Q. And that would include fuel oil? A. At the request, in that case, of the Police Department.

30 MR. MEARES: Q. What case? A. I say that, because our Act limited the particular oils which were handled as a matter of course to 150 flash point. Anything outside that involving a question would be at the request of the experts of the Police Department.

MR. ASH: Q. Have you been requested by the Police Department as a consultant on a number of occasions? A. On many occasions.

Q. Over what period? A. Between 30 and 40 years.

Q. And were any of those requests related to matters concerning fuel oil? A. I do not think so.

40 Q. What is your experience and familiarity with fuel oils and their combustibility and inflammability? (Objected to).

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Examination  
continued

HIS HONOUR: We will have to get it cleared up.

MR. ASH: Q. Take furnace oil, which is a type of fuel oil, I take it - ? A. Yes.

Q. Of a flash point of 170 degrees? A. Yes.

Q. What has been your experience of furnace and fuel oils of that order? A. I would know of its general characteristics, and in particular with the Departmental work we would have a problem of its storage in relation to other more highly inflammable petroleum products.

10

HIS HONOUR: Q. Before you go on, was such training as you had in chemistry or in engineering, or what? A. As a chemist.

Q. I heard you mention that you had been an analyst? A. Yes; my official title firstly was Analyst and Inspector, and later Technical Officer.

Q. But it is in chemistry that you would be qualified from an academic point of view, so to speak - is that right? A. Yes.

MR. ASH: Q. I think I asked you, in your association with fuel oils, have you had, on a number of occasions, to direct your mind to the question of precautions in regard to the inflammability of them? A. Yes.

20

Q. Have you done any experiments concerning the ignitability of furnace oil on water? A. Yes.

Q. When I am speaking of furnace oil, my learned friend here is quite rightly concerned with the fact that in Departmental work you are primarily concerned with the liquids, I suppose, that come under a certain Act and have a maximum of 150 flash point? A. That is so.

30

Q. And in case I transgress, will you set me right? When I speak of furnace oil you will assume that I am speaking of oils of 170 degrees flash point and thereabouts? A. Yes.

Q. And as a result of those experiments, to what thinness will furnace oil on water ignite, if set alight - will ignite? A. As an estimation, a minimum of about 1/16th of an inch - as an estimation.

40

Q. Do you consider furnace oil spread on water, first of all I ask you generally, as a fire hazard - (Objected to).

HIS HONOUR: I will allow the question, but I won't regard it as helpful to me unless it is amplified to me by detail and indicating what his experiments have shown, and things like that. You had better get the answer to the question you asked.

MR. ASH: I was going to withdraw it.

HIS HONOUR: Very well, you withdraw it.

10 MR. ASH: Q. Have you conducted any experiments concerning - I think you have - the inflammability of furnace oil on water? A. Yes.

Q. And have you considered the conditions under which oil on water would become a fire risk? A. Yes.

20 Q. Perhaps I could ask you in what circumstances and conditions would you consider oil on water - say salt water - a fire risk? A. It would become a fire risk - at least it is itself a fire risk, but it would become ignited if, in some way, materials were lighted and could act as a wick to the oil surface.

Q. Well, you have really dealt with it in two stages. You are now directing yourself to the immediate mode of ignition? A. Yes.

Q. I will ask you that. I have forgotten the precise words you used in your last answer?

(At this stage His Honour directed the shorthand notes of the following answer to be read:

30 "A.It would become a fire risk - at least it is itself a fire risk but it would become ignited if, in some way, material were lighted and could act as a wick to the oil surface.")

Q. What sort of a matter have you in mind?  
A. Cotton, cotton waste, cotton material, possibly hemp, timber shavings, to a lesser extent rope, and to a lesser extent again, wood.

40 Q. And if those items that you have mentioned were floating on oil on water - do you follow me? A. Yes.

Q. To some extent wholly coated and covered and soaked - that is the word I am after - with the oil - ? A. Yes.

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Examination  
continued

Q. Could they be ignited by - I withdraw that. You are familiar with oxy-burning operations and electric welding operations are you? A. Yes.

Q. And could those objects floating on water, soaked in oil as I have described, be ignited by sparks of molten metal coming from those two sources falling upon them? A. Yes.

Q. You are quite familiar with the operations, are you, of oxy-burning and welding? A. Yes.

Q. And could you give me some idea, related to your experience and observation, of how far pieces of molten metal will fly when those operations are going on? A. Particularly -

10

Q. I do not mean vertically? A. Particularly with welding, the estimated horizontal distance is from 20 to 25 feet, at which distance the sparks of hot metal can ignite combustible material. Chemically, I know that they will at least 60-feet.

Q. You mentioned electric welding - is there any difference in degree of molten metal from an oxy burner as distinct from an electric welder? A. No, it is a very similar operation.

20

Q. You gave me your opinion of furnace oil on water constituting a fire risk in general. Would that be increased or decreased if the furnace oil was floating in fairly thick quantity under a wharf, say, 40-feet across - 40-feet wide - some 12-feet or so from the water level, varying, of course, with the tide, and against that wharf was a ship about 230-feet long, perhaps not hard up against the dock, but within a few feet of it, and if that oil were in that condition and coated the piles and foreshores under the wharf, with the tide going up and going down but the oil remaining for two or three days in roughly the same condition - the incoming and the outgoing of the tides - and with the items of debris such as you have described floating about underneath, with burning or welding operations going on, on the wharf, which had spaces between the planks, and on the side of a ship, perhaps, and the ship next to it - would that increase or decrease the inflammability of furnace oil? A. I think it would increase it somewhat.

30

40

CROSS-EXAMINED:Plaintiffs  
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examination

MR. MEARES: Q. I do not think I will take up much of your time. First of all, your qualifications as a chemist? A. I am an Associate of the Sydney Technical College.

Q. Does that mean that you did exams? A. I did.

Q. Many years ago? A. Yes.

Q. When did you conduct the experiments to which you referred? A. About a month ago.

10 Q. And I suppose you conducted them for the purpose of ascertaining methods of igniting fuel oil on water? A. Reproducing what I had in mind.

HIS HONOUR: Q. What you had in mind as a possible source of fire in oil on water? Is that right? A. Yes.

Q. MR. MEARES: And did you do the experiments in a confined space or in the open air?

A. No; it was in a laboratory.

20 Q. And the oil you used - would you tell me whether, first of all, you knew certainly its flash point? A. I saw its flash point, yes. It was made up to the approximate specifications of this particular furnace oil.

MR. MEARES: I ask that that be struck out at this stage. I did not ask it. I do not concede that that was the fact.

HIS HONOUR: I do not think I will have it struck out.

30 MR. MEARES: Q. Where did you get it from? A. It was made up at the Vacuum Oil Co.

Q. And its flash point? 166°F.

HIS HONOUR: Q. That, of course, would be something you were told? A. I saw it. I actually saw the test done.

Q. You actually saw the test done? A. Yes.

MR. MEARES: Q. You were able to test that yourself? A. Yes.

40 Q. You knew, of course, before you did the experiments, how the Morts Dock fire probably started? A. Yes.

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Cross-  
examination  
continued

Q. And your first experiment, I take it, was with a wick of cotton waste? A. Well, I am not sure in the water, but it certainly was that - one was with cotton waste, yes.

Q. You, of course, have been vitally concerned with inflammable liquid for a number of years?  
A. Up to 150 flash point, yes.

Q. Did you know of the Panamanian fire? A. No, not until recently. I do now.

Q. Did you know of the Morts Dock fire? A. No. 10  
Q. Until recently? A. Not until recently. Well, some few years ago. It would be six years, I suppose. Before I went abroad - about 1957, I suppose, or 1956.

Q. Were you in Sydney in 1951? A. Yes.

Q. Did you know of any other oil fire on the harbour prior to November 1951? A. May I ask involving furnace oil or - ?

Q. Yes. A. No.

HIS HONOUR: Q. Would you tell me, in those experi- 20  
ments you conducted, how did you go about deter-  
mining or measuring the thickness of your oil on  
your water? A. I, of course, had in mind that  
1/16th had been suggested as the thickness possible,  
so that we theoretically calculated 1/16th of an  
inch on top of the water in the kerosene tins cut  
lengthwise, which was our testing equipment, and  
I found that as long as we kept full by the  
addition of further oil as it was being burnt,  
eventually, after a short time, we could have the 30  
flame travel over the whole surface, but if it  
were not kept at that particular thickness it  
would not; the oil would be blown away.

Q. But you took the area of your surface of water, did you? A. Yes.

Q. And then, by arithmetical calculations, you worked out what volume of oil would be required to cover that to a depth of 1/16th of an inch?  
A. Yes.

Re-examination RE-EXAMINED:

40

MR. ASH: Q. My friend asked you about the labora-  
tory, and you said that the experiments were  
conducted there. For the purpose of giving the

view that you did, of whether a flame on water could ignite the oil, would it matter if it was held in the laboratory or in the open air?

A. I think it would probably go quicker in the open air because you might have more draughts to carry the flame across the surface. There was very little draught in the laboratory.

Q. But it still kept going and brought up the oil while it was in a still condition?

10 I think you answered His Honour's question.

A. Yes.

Q. If it is not limited by the area of your kerosene tin, but there is more to come in, what is the position? A. That is a different story.

Q. Did you have much association with the harbour at all? Did you see fires, or were you working? A. Anything involving materials up to 150 flash point was certainly my concern from the Maritime Services Board or from the Navigation Department, even if it happened on the Harbour, because our regulations - you do not want to know?

20

Q. Other than that, you would not be called in? A. Unless there was some fatality involved, where the Police would ask for my assistance.

Q. There was one matter I omitted to ask in chief which is a new and separate matter. Perhaps His Honour would allow me to do that.

30

HIS HONOUR: Yes, I will allow you to do that, and Mr. Meares will have the right to ask any further questions later.

MR. ASH: Q. Are you familiar with the emulsification of oil? A. Yes.

Q. What is required to emulsify oil? A. Vigorous shaking.

Q. And if any oil were lying on the water and did become slightly emulsified in certain spots, and then the tide went down and more oil flowed in, up and down with the tide, what effect would that have on any existing emulsification? A. There would be very little emulsification left, because the oil would tend to find its own level again in relation to the water.

40

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Re-examination  
continued

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Re-examination  
continued

MR. MEARES: I wanted to ask a question which Your Honour might think I am not entitled to ask.

HIS HONOUR: Yes, I will allow you to ask it.

MR. MEARES: Q. From your knowledge and experiments, the risk of fire from a wick in the case of an oil of flash point round about 170° is greater if there is a volume of air - of movement - immediately above the oil, than if there is not? A. Yes, it is greater - some movement of air.

(Witness retired).

10

No.22

H. W. Lees

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Examination

No.22

Evidence of H. W. Lees

HENRY WATSON LEES Sworn and examined:-

MR. STREET: Q. You live at 63 Park Avenue, Cremorne? A. Yes.

Q. And you are a consulting marine engineer?  
A. Yes.

Q. I think you are a member of the Chartered Institute of Marine Engineers of England? A. Yes.

Q. You went to sea, I think, in 1920 as a fourth engineer? A. Yes.

Q. You were at sea on a number of different ships between 1920 and 1930? A. Yes.

Q. But I think it fair to say that most of them were coal burners, were they not? A. Most of them.

Q. How many oil burners were you on during that time? A. At that time only one - two.

Q. They were two Port Line ships? A. Two Port Line ships, and then I came out to New Zealand in an oil burning ship.

Q. Some of the coal burning ships had auxiliary oil? A. No, the motor ships.

Q. You came to Sydney in 1930? A. Yes.

Q. And for two years you conducted a school in Melbourne coaching candidates for first and second class Marine Engineer's Certificate? A. Yes.

Q. You yourself at that time held your Chief Engineer's Certificate? A. For steam and motor.

30

Q. In the case of Marine Engineers, I think there is a grade of first, second and Chief Engineer? A. No; second and chief, and then higher - extra chief.

Q. In 1932 you got your extra chief's certificate? A. Yes.

Q. And that is one grade higher than a Chief Engineer's Certificate? A. Yes.

10 Q. I do not think that there are many Extra Chief Certificate holders, are there? A. No, not too many.

Q. In 1934, did you join the Commonwealth Department of Shipping and Transport as it is now known? A. Yes.

Q. And you were with that Department until your retirement in 1957? A. Yes.

Q. And in that Department you were Engineer and Ship Surveyor, and you were also the Examiner of Marine Engineers? A. Yes.

20 Q. For their certificates of competency? A. Yes.

Q. That is the Department that is responsible for issuing certificates of competency to marine engineers? A. Yes.

Q. And since your retirement in 1957 I think you have been to sea on four or five different short voyages - four months or something of that order? A. Yes.

30 Q. Just an odd appointment from time to time as a Chief Engineer in a foreign ship? A. Yes, relieving.

Q. Oil burners? A. Yes.

Q. I think you have been appointed by the State as one of the engineering assessors to the State Court of Marine Inquiry? A. Yes.

Q. And I think you were discharging your functions in that regard in the last two days, were you not? A. Yes.

40 Q. In connection with a certain ferry incident? A. Yes.

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Examination  
continued

Q. During your duties as engineer and ship surveyor with the Department, what were your particular duties in relation to shipping?

A. Regular inspection and survey of all parts of the ship, including fire precautions and various things like that.

Q. Leaving out of consideration legal requirements, ships are surveyed from time to time in relation to their safety equipment, and general equipment?

A. Yes, all the time.

10

Q. All the time? A. Yes.

Q. And you were concerned with that quite apart from your examining functions? A. Yes.

Q. And during those years you were with the Department, I suppose you have been on and surveyed many vessels, oil burning and otherwise? A. Yes.

Q. And are you familiar with the procedure of oil bunkering of oil burning vessels? A. Yes.

Q. Would you tell His Honour what is the procedure to be followed on an oil burning ship when bunkering - (Objected to).

20

Q. When bunkering from a barge alongside? (Objected to; admitted).

Q. Tell His Honour the procedure which you have seen followed on ships when bunkering oil fuel from a barge alongside in harbour. A. Yes.

Q. What is the procedure? A. Well, the procedure is to know how much oil is coming on board and to see if you have the tank capacity for it. That is the first thing.

30

Q. First of all, what personnel are engaged in the process of bunkering? A. Well, the ship's engineer is standing alongside and the Chief Engineer and the rest of the engineers. You are usually the one on deck watching and communicating with the men ashore.

Q. Usually you have one man on deck watching? A. Yes.

Q. Watching what? A. Watching the operations on the shore or on the barge, and you have another man down below.

40

Q. In the engine room, you mean? A. Yes. You might have more than one - you might have two.

Q. And what do the men or what does the man down below do? A. Well, he is standing by the valves and gauging by gauge or rod.

Q. Well, he is standing by the valves and gauges? A. Yes.

Q. The ship's bunker tanks have valves in the engine room? A. Yes.

Q. And you tell by a gauge how much you have got? A. Yes; some have gauges and some have rods.

10

Q. And you have a man down in the engine room watching the gauges and standing by the valves? A. Yes; that is after you see that the valves and the oil pipes are all clear.

Q. These valves that the man is standing by - what valves are they? A. The inlet valves into the tank, by which you allow the oil in. You "crack" the valve. You must make sure that another tank is open when one is being filled.

20

Q. You mentioned about a valve being "cracked"? A. Yes. If you have a double bottomed tank being filled, you have another double bottomed tank "cracked", so as to prevent the overflow.

Q. So that this "cracking" of the valve is what? "A. Slightly opening it.

Q. How do you "crack" the valve? A. It is usually shut down tight. If you "crack" it you make it so that it is easily opened.

30

Q. What is the purpose of standing by and having the valve "cracked"? A. To prevent any overflow. (Objected to).

Q. You have the flow into one tank? A. Yes.

Q. And you have a stand-by tank and you have the valve so that you can open it quickly in case there is an overflow? A. Yes. Fuel oil is usually put in a deep tank. You fill the double bottomed tank from the deep tank. There is a valve ready for the overflow. You must prevent overflow in any case.

40

Q. What happens when you get to your last tank? A. If you get to your last tank and there is no overflow, the sounding man gives plenty of warning to stop the overflow. They are just extra precautions so that you do not overflow.

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continued

Q. You mentioned the man up on top? A. Yes.

Q. What is his duty? A. To stop the man on the shore.

HIS HONOUR: Q. Or on the barge? A. Yes, or the barge. The barge would have a pump.

MR. STREET: Q. And if you are on to your last tank, does the man on deck have any duty other than just watching the barge or the shore?

A. No, but he has told them there to slow up the pump and he will tell them to stop before the tank is full. You must not allow a double-bottomed tank to come under pressure. 10

Q. What about a forepeak tank? A. You would always make sure that another double-bottomed tank was opened before you filled the forepeak tank.

Q. Or the valve "cracked", you mean? A. Yes.

Q. So that you can switch on to it quickly?  
A. Yes; when you shut the forepeak - the forepeak is usually pumped up not from the shore; it is usually pumped up from a double-bottomed tank so that they have control of it the whole time. 20

Q. What do you say is the difference between the forepeak and the double-bottomed? A. Well, the forepeak is usually kept dry until it is wanted. Otherwise, in the case of a collision there might be a further fire hazard.

Q. You have spoken of this man being there to shut off the valve when there is still a few inches in the top of the tank? A. Yes; a few inches from the top of the tank. 30

Q. Do you have any views about the overflowing of furnace oil so that it flows over the ship into the harbour? A. Well, you do not want it to overflow anywhere.

Q. Supposing you are bunkering alongside a wharf in harbour? A. Well, it might not be now, but usually you got the sack.

Q. But apart from the more practical consequence, do you have any views as to the other consequences of an overflow? A. Well, associated with oil there is always a fire hazard, no matter whether it spills overboard or inside the ship, anywhere - there is always a fire hazard with oil. 40

10 Q. I want you to direct your attention to furnace oil specially of a flash point of 170°, and I would ask you to cast your mind back to 1951 and prior to that. In 1951 and prior to that what would have been your views, or what were your views as to the overflowing of furnace oil of flash point about 170? A. Just the same as what they are now. There is always a fire hazard. In fact, before you are bunkering you make sure that all the mains are right and your pumps are all right too, to prevent your fire hazard. You make sure of all that.

Q. If furnace oil does in fact discharge over the side of a ship - A. Yes.

20 Q. And collects in a continuous film under a wharf about 600 feet long, and projecting out from the ship about 30 to 40 feet - a long wharf with a ship about 230 feet long lying alongside the wharf - I just want you to picture that if you can - a film of furnace oil of 170 flash point underneath that wharf of a degree of thickness that you cannot see the water through the oil? A. Yes.

Q. And the wharf constructed of planking which is separated by half an inch or thereabouts? A. Yes.

30 Q. And the final thing I want to put to you is oxy-acetylene cutting or burning, and perhaps welding going on on the wharf? A. Yes.

Q. Could you express any opinion as to those sets of facts - a first of all could you offer any opinion on those sets of facts? A. No; there would always be the fire hazard. There is more of the hazard where it would not be seen.

Q. More of the hazard where it would not be seen? A. Yes. In fact, if you were welding you would have to have a man underneath watching it.

40 HIS HONOUR: Q. You would have a man watching to see what? A. That no sparks came down and ignited anything.

MR. STREET: Q. Have you ever heard of a fuel oil - furnace oil - catching fire on sea water? A. Yes; I do not know what caused it, except in the case of the hospital ship "Manunda". They had to launch the life boats when she was bombed, and there was fire on the water. That was in Darwin.

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continued

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continued

Q. She was an oil burner? A. A motor ship, but it was fuel oil which is the same thing as supplied for furnace oil.

Q. And have you heard of other instances?  
A. Yes, a big ship, the "Niagara", had fire in the bilges. They do not know what caused the fire. It is a well known thing, of course, that you must keep your bilges clear. There is always an accumulation in the bilges, and in the case of the "Niagara" it did go on fire. It was extinguished by the ship's extinguishers. 10

Q. There is always oil on the water in the bilges?  
A. Yes; and you take all the precautions.

Q. And you say that precautions are taken in regard to the possibility of oil in bilges floating on the water, catching fire? A. Yes.

Q. In the course of your examining of Marine Engineers, and your couple of years of coaching before that, did the topic of inflammability of oil or fire precaution in regard to furnace oil come into the subject with which you dealt with your students? A. Yes. You come into it - (Objected to). You must have a knowledge of the regulations, the compulsory regulations. Then you must use your own commonsense. We preach that cleanliness is next to Godliness. 20

Q. And is that for reasons of safety - ? A. Yes. (Objected to as leading.)

Q. Safety from what? A. Safety from fire. Fire precautions. 30

Q. And when this topic was dealt with, that was in 1930 to 1932? A. Yes.

Q. And the topic on which you were examining would cover the period before 1951? A. Yes.

Cross-  
examination

CROSS-EXAMINED:

MR. MEARES: Q. When were you asked to give evidence?  
A. When was I asked to give evidence?

Q. Yes. A. In this case?

Q. Yes. A. Yesterday.

Q. And I suppose you were told of the Morts Dock incident, were you? A. No; I do not recollect it. I was told there was a fire there, but if I had any dealings with it I do not recollect that at all. 40

Q. But yesterday you were told of the Morts fire and the circumstances? A. Not yesterday - this morning.

HIS HONOUR: Q. Had you heard anything about the Morts fire at all beforehand? A. No, not before this case at all.

MR. MEARES: Q. The "Manunda" of course was a dieseline burner? A. No, crude oil. The Shell Co. supplied it and they supplied just the same for boilers as for burning in the engines.

Q. And the "Niagara"? A. There were all practically supplied the same thing. The "Niagara" was oil-burning; the "Manunda" was oil-fired in the diesel engines.

HIS HONOUR: Q. The "Manunda" you say was driven by diesel engines, was it? A. Yes; what are called diesel engines. There were three diesel engines.

(Witness retired).

(Letter, defendant to Caltex Oil Pty. Limited, 16.11.'61, together with copy letters, Caltex to Overseas Tankships, both dated 2.11.'51, tendered; all objected to.)

HIS HONOUR: I would think, in the circumstances, that I would not take this as being some acknowledgment by silence, or something of the sort, of all the details contained in the letters written to the defendant, but I think the defendant's own letter is admissible as having some bearing on the case and, if it is admitted I think the others must be admitted in order that it may be intelligible.

(Abovementioned correspondence marked EXHIBIT G.)

(By consent, one set of nine photographs tendered; admitted and marked EXHIBITS H.1 to H.9.)

MR. ASH: My juniors have agreed that the document I am handing up is a proper description and contains details of the points from which each of them was taken. Might I say that when I led the photographs, while very approximately following this schedule, I did not follow it precisely and if, in the transcript, there is anything

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inconsistent with this document, this document should prevail.

(Abovementioned Schedule admitted and marked part of EXHIBIT H).

HIS HONOUR: It will be noted that the facts stated on this sheet, in relation to the photographs, are facts agreed between the parties in relation to those photographs.

MR. MEARES: It can be added -- it is common ground -- that the photographs were taken in November 1957.

10

HIS HONOUR: I will cross out the sentence about there being three photographs.

(Small photograph of fire tendered.)

MR. MEARES: If my friend is prepared to tell me when it was taken and where, or give me some particulars, there will be no objection.

MR. ASH: I do not know the precise number of minutes. I do not know whether very shortly after the main part of the fire started --

20

MR. MEARES: Could it be agreed that it represents a photograph taken during the course of the fire?

MR. ASH: Yes.

(Counsel confer.)

MR. MEARES: I have no objection.

MR. ASH: I think it is proper to say it was during the early course of the fire.

MR. MEARES: I cannot agree. I just do not know.

MR. ASH: You would agree that that ship is the "Corrimal" and that that is the "Audrey-D"? (Not agreed).

30

(Abovementioned photograph admitted and marked EXHIBIT J.)

(Copies of Sydney Morning Herald dated 18.1.'45, 19.1.'45 and 17.7.'45, containing articles concerning the "Panamanian" fire in Fremantle, tendered, together with copies of the West Australian, 18.1.'45, 19.1.'45 and 20.1.'45; rejected.)

Plaintiffs  
Evidence

13th February  
1963  
continued

10 MR. ASH: I undertook, several days ago, to give you the figures of a barrel in gallons. A barrel contains 42 United States gallons and, so close to 35 Imperial gallons we will call it 35. There are seven-and-a-half barrels to the ton.

MR. ASH: It might be noted that the flash point of the furnace oil this day was 170 degrees. I think the defendant Company knows that fact, knew that fact at the time.

MR. MEARES: I do not know what you mean by that.

20 MR. ASH: You sought an admission from me that this was 170 degrees, the oil going into the "Wagon Mound". I assumed from that that the defendant Company knew that fact.

MR. MEARS: I suppose we would have. I have never thought about it. I would not know that.

MR. ASH: Very well. I will deal with that in the morning.

30 HIS HONOUR: This is a thing to which objection was taken, which was admitted in the other trial, is it?

MR. ASH: Yes. (Counsel confer).

MR. MEARES: That is all right. This was known to the Chief Engineer.

HIS HONOUR: It is admitted that the flash point of the oil in question was 170 degrees and that this figure was known, at the time of the bunkering, to the Chief Engineer of the "Wagon Mound".



Plaintiffs  
Evidence  
            
13th February  
1963  
continued

MR. MEARES: Yes.

MR. ASH: Your Honour went on a view the other day, with my friend and myself, and saw some planks on the Sheerlegs Wharf which could have been thought to have been renewed after the fire. My friend and I have agreed that it is a fact that a portion of the planking on a section of that wharf was, in fact, renewed after the fire.

(Further hearing adjourned until  
10.00 a.m. on Thursday, 14th  
February, 1963.)

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IN THE PRIVY COUNCIL

No. 7 of 1964

ON APPEAL

FROM THE SUPREME COURT OF NEW SOUTH WALES

IN COMMERCIAL CAUSES

No.3000 of 1955 & No.3001 of 1955

B E T W E E N

OVERSEAS TANKSHIP (U.K.) LIMITED  
(Defendant)

Appellant

- and -

THE MILLER STEAMSHIP COMPANY PTY.  
LIMITED and another (Plaintiffs)

Respondents

And by Consolidation Order of the Supreme Court  
of New South Wales 28th October 1963

B E T W E E N

THE MILLER STEAMSHIP CO. PTY. LIMITED and  
another (Plaintiffs)

Appellants

- and -

OVERSEAS TANKSHIP (U.K.) LIMITED  
(Defendant)

Respondent

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