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UNIVERSITY OF LONDON

In the Privy Council.

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INSTITUTE OF ADVANCED
LEGAL STUDIES

No. 72 of 1936.

VOL. 5

CANADIAN
LIBRARY

ON APPEAL

**FROM THE COURT OF KING'S BENCH FOR THE
PROVINCE OF QUEBEC**

BETWEEN

**WILLIAM I. BISHOP LIMITED and
THE BANK OF MONTREAL**

(Plaintiffs and Cross-Appellants before Court of
King's Bench) *Appellants*

AND

THE JAMES MACLAREN COMPANY LIMITED

(Defendant and Cross-Respondent before Court of
King's Bench) *Respondent*

RECORD OF PROCEEDINGS.

**VOLUME 5.—DEFENDANT'S EVIDENCE (CONTINUED).
PLAINTIFFS' EVIDENCE IN REBUTTAL AND
DEFENDANT'S EVIDENCE IN SUR-REBUTTAL.**

BLAKE & REDDEN,
17, Victoria Street, S.W.1,
For the Appellants.

CHARLES RUSSELL & CO.,
37, Norfolk Street,
Strand, W.C.2,
For the Respondent.

43, 1937

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DEFENDANT'S EXHIBITS AT ENQUETE

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-

L. A. DUBREUIL (pour la Défenderesse) Examen en chef.

DEPOSITION DE LOUIS ADRIEN DUBREUIL

Témoin entendu de la part de la défenderesse.

10 Ce dixième jour du mois de mars de l'an mil neuf cent trente-trois, a comparu Louis Adrien Dubreuil, ingénieur civil, âgé de trente-huit ans, demeurant au No 1212 rue St Mathieu, Montréal, témoin produit de la part de la défenderesse;

Lequel, après serment prêté sur les saints Evangiles, dépose et dit:

Interrogé par Me Aimé Geoffrion, C. R., procureur de la défenderesse:—

20

Q.—Vous êtes à l'emploi de la Commission des Eaux Courantes de Québec?

R.—Non, je suis à l'emploi de la compagnie Dufresne Construction.

Q.—Vous avez été à l'emploi de la Commission des Eaux Courantes de Québec jusqu'en mil neuf cent trente (1930)?

R.—Oui, monsieur.

Q.—Vous n'êtes plus à son emploi?

R.—Non, monsieur.

30

Q.—Les notes que j'ai ici, j'aurais du les lire avant de de vous questionner, sont à l'effet que vous avez été à l'emploi de la Commission de mil neuf cent seize (1916) à mil neuf cent dix-huit (1918), et de mil neuf cent vingt-trois (1923) à mil neuf cent trente (1930)?

R.—Oui, monsieur.

Q.—De mil neuf cent dix-huit (1918) à mil neuf cent vingt-trois (1923), vous étiez avec le service hydraulique de Québec?

R.—Oui, monsieur.

40

Q.—Quelle était votre position dans la Commission des Eaux Courantes en mil neuf cent vingt-neuf (1929) et mil neuf cent trente (1930)?

R.—J'étais représentant de la Commission des Eaux Courantes sur la construction du barrage de la compagnie James Maclaren sur la rivière du Lièvre.

Q.—Avez-vous de l'expérience comme ingénieur surveillant dans la construction de digues de ce genre?

R.—A l'emploi de la Commission des Eaux Courantes j'ai eu à voir à la construction d'environ une douzaine de barrages.

L. A. DUBREUIL (*pour la Défenderesse*) *Examen en chef.*

- Q.—Aussi importants que celui-là ?
R.—Six (6) environ de l'importance de celui-là.
Q.—Vous êtes gradué de l'école Polytechnique ?
R.—Oui, monsieur.
- 10 Q.—En mil neuf cent vingt-huit — mil neuf cent vingt-neuf (1928-1929) avez-vous visité le site que vous deviez surveiller ?
R.—Oui, monsieur.
Q.—Plus d'une fois ? Combien de fois ?
R.—J'étais ingénieur résident, j'étais sur les travaux constamment.
Q.—Mais avant d'arriver pour résider, étiez-vous allé inspecter le site d'abord ?
R.—Oui, une couple de fois.
- 20 Q.—Quand êtes-vous arrivé sur les lieux ?
R.—En avril, je crois, mil neuf cent vingt-neuf (1929).
Q.—Vous êtes restés jusqu'à quand ?
R.—Jusqu'au printemps mil neuf cent trente (1930).
Q.—Je comprends qu'à part d'avoir été ingénieur, vous êtes l'artiste qui avez pris nombre de photographies produites en cette cause. Je vous produis d'abord une liasse D-11 à D-29. Voulez-vous nous dire si ce sont des photographies qui ont été prises par vous des travaux dont il s'agit au rapide des Cèdres, et à l'endos, il y a au clavigraph, l'indication de l'endroit et du mois ou de la date. Voulez-vous dire si l'indication au dos de l'endroit et de la date est exacte ?
- 30 R.—D-29, le seize (16) novembre mil neuf cent vingt-neuf (1929).
D-28, le vingt-deux (22) août mil neuf cent vingt-neuf (1929)
D-27, le seize (16) novembre mil neuf cent vingt-neuf (1929)
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D-25, le vingt (20) avril mil neuf cent vingt-neuf (1929).
- 40 D-24, le vingt-cinq (25) du septième mois, mil neuf cent vingt-neuf (1929).
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L. A. DUBREUIL (pour la Défenderesse) Examen en chef.

- D-19, le vingt (20) avril mil neuf cent vingt-neuf (1929).
D-18, le vingt (20) avril mil neuf cent vingt-neuf (1929).
D-17, le vingt mars mil neuf cent vingt-neuf (1929).
D-16, le vingt (20) avril mil neuf cent vingt-neuf (1929).
10 D-15, le vingt-sept (27) du septième mois mil neuf cent vingt-neuf (1929).
D-14, le vingt-deux août mil neuf cent vingt-neuf (1929).
Q.—Les exhibits D-11, D-12 et D-13 ne sont pas de vous ?
R.—Non, monsieur.
Q.—Les autres sont de vous et la note au dos est exacte ?
R.—Bien, je le crois. Je n'ai pas mes notes originales pour
comparer.
Q.—Est-ce vous qui les avez mises ?
R.—Là-dessus, non, ce n'est pas moi.
20 Q.—Qui a mis cela ?
R.—Cela a dû être copié par quelqu'un à la machine. Les
notes originales sont écrites à la main, à l'encre.
Q.—Pouvez-vous les vérifier ?
R.—Elles seraient au bureau de la Commission des Eaux
Courantes.
Q.—Voulez-vous vérifier et vous reviendrez cet après-mi-
di nous le dire ?
R.—Certainement.
Q.—Avez-vous vu les travaux d'excavation du canal de dé-
30 rivation du "by pass" ?
R.—Une partie seulement.
Q.—Quand cela à peu près ?
R.—En février mil neuf cent vingt-neuf (1929).
Q.—Avez-vous suffisamment examiné le sol qu'on exca-
vait pour être capable de nous donner votre opinion sur ce dont
il se composait ?
R.—A ce moment-là, on excavait du roc. J'étais allé exac-
tement pour ce point-là, déterminer si le roc qui était découvert
était de qualité suffisante pour asseoir les fondations du barra-
40 ge, et au-dessus du roc on excavait un autre matériel.
Q.—Je parle de cet autre matériel au-dessus du roc. Ce-
lui qui repose sur le roc l'avez-vous regardé ?
R.—Oui, je l'ai regardé sans y prêter une attention spé-
ciale, parce que ce qui m'intéressait davantage c'était le roc.
Q.—Êtes-vous en état de dire ou non de quoi se composait
ce matériel ?
R.—A la surface c'était de la terre ordinaire, et en dessous,
du sable, du gravier et des cailloux.

L. A. DUBREUIL (pour la Défenderesse) Examen en chef.

- Q.—Avez-vous vu d'autres choses à part du sable, du gravier et des cailloux ?
- R.—Non, c'est ce que j'ai vu. Il y avait peut-être autre chose, et je ne l'aurais pas vu.
- 10 Q.—Avez-vous vu des cailloux ? Des "boulders" ce sont des cailloux ?
- R.—Ce sont des "boulders".
- Q.—Avez-vous constaté s'il y avait de la glaise, là ?
- R.—Je n'ai pas vu de glaise en quantité remarquable. Je n'en ai pas remarqué.
- Q.—Je parle du mot "clay", en anglais, c'est ce que vous voulez dire ?
- R.—Oui, c'est de la glaise.
- 20 Q.—Vous avez gardé un journal, n'est-ce pas, de vos observations ?
- R.—Oui, monsieur.
- Q.—Etes-vous capable de mémoire, sinon en rafraîchissant votre mémoire au moyen de vos notes, de nous donner quelles sont vos observations quant à la largeur ou la suffisance du canal de dérivation à votre visite du treize (13) juillet mil neuf cent vingt neuf (1929) ?
- R.—Je ne me rappelle rien de mémoire.
- Q.—Vous avez droit de regarder vos notes.
- R.—Alors, cela serait dans le journal qui doit être dans les
- 30 mains des officiers de la compagnie James Maclaren.
- Q.—Voulez-vous dire si ces livres représentent votre journal 1929-1930 ?
- R.—Le treize (13) juillet mil neuf cent vingt-neuf (1929), j'ai une note dans mon journal : "Construction des batardeaux ne peut être continuée parce que le canal de dérivation n'est pas large pour passer, où il passe environ soixante et quinze pieds cubes seconde par le canal. Débit de rivière, a dix mille pieds cubes et plus."
- 40 Q.—Avez-vous pris des notes ou avez-vous observé quelque temps après quelque incident en rapport avec la mise en place des batardeaux, savoir : le seize (16) juillet ?
- R.—"Un caisson pour batardeau amont, descendu presque en place, pont de cable déplacé par caisson."
- Q.—Je vous pose la même question quant à la mise en place des batardeaux, le vingt (20) juillet ?
- R.—Le vingt (20) juillet mil neuf cent vingt neuf (1929) : "Construction des caissons, ouverture nord, "batardeau amont".
- Q.—Y a-t-il autre chose de cité là, à part d'un dessin, n'est-ce pas ?

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R.—Concernant les caissons, c'est tout ce que je vois.

Q.—Il y a un dessin en bas ?

R.—Un dessin.

Q.—Le vingt-deux (22) juillet ?

10 R.—“P. M. Mise en place d'un caisson entre caisson central et caisson du nord. Le caisson s'est placé en diagonal entre ces deux caissons.”

Q.—Vous avez un dessin là, je voudrais bien vous le faire refaire. M. Lefebvre me dit qu'il ne peut pas se départir de l'original. Vous n'êtes plus en possession de ces livres ?

R.—Non, c'est la propriété de la Commission des Eaux Courantes, à moins qu'elle s'en soit départi depuis.

Q.—Je comprends que ce dessin n'a pas été pris par mesurage ?

20 R.—Non, monsieur.

Q.—C'est approximatif ?

R.—Oui, monsieur.

Q.—Voulez-vous prendre un morceau de papier et nous faire ici ce dessin ? Vous venez de dessiner, de reproduire vous-même sur une feuille de papier ce dessin qui se trouve dans vos notes, à la date du vingt-deux (22) juillet mil neuf cent vingt-neuf (1929), voulez-vous reproduire ce dessin comme D-41 ?

R.—Oui, monsieur.

30 Q.—L'échelle de votre dessin que vous venez de faire est plus grande que l'échelle de vos notes ?

R.—Les proportions sont sensiblement les mêmes.

Q.—Avez-vous encore en rapport avec la mise en place des batardeaux d'amont, constaté un autre incident, quelques jours après, je veux référer aux deux (2) août ?

R.—“Le caisson du batardeau amont entre chaînage 156 sud et 186 sud est descendu sur la rivière. Mais s'échoue immédiatement en amont du batardeau.”

40 Q.—Le lendemain, est-ce qu'il n'est pas arrivé d'autre chose encore ?

Le trois (3) août mil neuf cent vingt-neuf (1929) : “Mise en place d'un dernier caisson de batardeau d'amont, entre les chaînages 156 sud et 186 sud. 6 P.M. “Le caisson échoue avant d'arriver en place.”

Q.—Avez-vous subséquemment noté quelque chose au sujet du “toefill” remplissage, le quatorze (14) septembre ?

R.—“Le quatorze (14) septembre mil neuf cent vingt-

L. A. DUBREUIL (pour la Défenderesse) Examen en chef.

neuf (1929), batardeau amont, remplissage de terre, amont presque terminé. Il y a une fuite dans la partie nord du batardeau. Scaphandriers essaient de localiser cette fuite.”

10 Q.—Je voudrais savoir si vous avez quelques notes à propos du scaphandrier, le seize (16) ?

R.—“Le seize (16) septembre mil neuf cent vingt-neuf (1929) : Batardeau amont remplissage de terre amont. Scaphandrier continue d’essayer localiser fuite. Batardeau aval remplissage de terre aval, remplissage de pierre et terre mélangée en amont entre chaînages 2 plus 13 nord et 4 plus 40 nord.

Q.—Est-ce que cela serait du côté nord ou du côté sud, je ne le sais pas, est-ce que vos niveaux indiqueraient si c’est au nord ou au sud, cela ?

R.—Il faudrait se référer au plan.

20 Q.—Voulez-vous retourner au vingt-quatre (24) août, voir si vous avez noté quelque chose quant aux billots pris dans le canal de dérivation ou “jam” ?

R.—Le vingt-quatre (24) août mil neuf cent vingt-neuf (1929), hommes de la compagnie Maclaren travaillent à défaire embâcle de billots, canal de dérivation, embâcle défaite P. M.

Q.—Le vingt (20) septembre, avez-vous remarqué quelque chose sur le même sujet ?

R.—Le vingt (20) septembre mil neuf cent vingt-neuf (1929), à propos du batardeau ?

30 Q.—C’est à propos du remplissage de batardeau de terre en haut, et des fuites d’eau ?

R.—“Batardeau amont remplissage de terre amont. Les fuites d’eau les plus considérables sont dans la partie nord près du rivage. Batardeau aval, rien.” C’est-à-dire, rien à noter.. “Assèchement cinq pompes tout l’avant-midi, l’eau ne baisse pas entre les batardeaux”.

Q.—Il y a eu un creusage profond, si je comprends bien dans la partie du barrage qui traverse le canal de dérivation pour arriver à un roc solide acceptable ?

40 R.—Oui, monsieur.

Q.—Vous avez eu connaissance de cela ?

R.—Oui, monsieur.

Q.—Pouvez-vous nous dire quand il a été découvert qu’il serait nécessaire de faire cette excavation profonde ?

R.—Pas de mémoire.

Q.—Vous pourriez tout relire, mais si mes savants amis le permettent, je vais vous suggérer la date. J’ai ici le treize (13) ou le seize (16) mai, je crois que c’est le treize (13), vous auriez une note et un téléphone à M. Lefebvre pour le seize (16) ?

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R.—J'ai ici le treize (13) mai "Excavation de roc entre chaînages 0 plus 30 sud, et 0 plus 40 nord. Nettoyage d'une faille de roc désagrégé dans tranchée amont, deversoir No 4. Excavation de roc entre chaînages 2 plus 60 nord et 3 plus 00 nord. Re: faille déversoir No 4, à midi, examinée avec Lindskog et Major M. C. McEwen.

10 Q.—Maintenant, le seize (16) avez-vous une note que vous auriez téléphoné à M. Lefebvre à ce sujet-là ?

R.—Le seize (16) mai mil neuf cent vingt-neuf (1929) : "Ai téléphoné à midi à M. Lefebvre, 2.30 P.M. re: Cement water "ratio, method of proportioning aggregates and concrete." Il me "dit de suivre cette méthode. Je l'ai avisé du nettoyage faille "de roc désagrégé dans le déversoir 4, tranchée amont."

20 Q.—Après vous être rafraîchi la mémoire, quand la nécessité de creuser profondément à cet endroit a-t-elle été découverte, et quand l'a-t-on décidée ? Est-ce que ces entrées-là suffisent pour vous faire répondre à cela ?

R.—Non, il me faudrait relire peut-être une dizaine de pages.

Q.—Alors, laissez faire, cela sera prouvé par d'autres. Vous avez surveillé l'excavation du roc, n'est-ce pas ?

R.—Oui, monsieur.

Q.—Au nom de M. Lefebvre c'est vous qui la dirigiez ?

R.—Oui, monsieur.

30 Q.—Vous avez déjà surveillé pour des digues semblables beaucoup d'excavation de roc, je suppose ?

R.—Oui, monsieur.

Q.—Pouvez-vous nous dire s'il y a eu quelque chose de spécial, de différent dans la façon dont vous avez dirigé l'excavation dans le cas actuel ?

R.—Avec les autres cas ?

Q.—Oui ?

40 R.—D'autres barrages, non monsieur. Généralement la même chose.

Q.—Je présume que vous faisiez rapport à M. Lefebvre et vous preniez des instructions de lui ?

R.—Oui, monsieur.

Q.—Les observations que vous avez entrées et inscrites dans votre livre et que vous avez lues là, pouvez-vous dire que vous les considérez exactes quand vous les avez faites ?

R.—Oui, monsieur.

Q.—Vous les croyez encore exactes aujourd'hui ?

R.—Oui, monsieur.

L. A. DUBREUIL (*pour la Défenderesse*) *Contre-interrogé.*

Contre-interrogé par Me Saint-Laurent, C. R., procureur des demandeurs :—

10 Q.—Pour cette excavation du roc, vous n'aviez pas d'échantillon qui avait été percé dans le roc, n'est-ce pas ?

R.—L'échantillon de roc ?

Q.—Oui. Vous n'aviez pas de carotte extraite du roc ?

R.—Non, monsieur.

Q.—Il vous était nécessaire de procéder avec précaution pour ne pas trop en enlever ?

R.—Nécessairement, oui, monsieur.

Q.—Lorsque vous aviez enlevé une couche, vous faisiez l'examen de ce qui était exposé et si ce n'était pas bon, vous don-

20 niez instructions d'enlever encore une autre couche ?

R.—D'en enlever encore davantage.

Q.—Et ceci a pu, à certains endroits se répéter plusieurs fois, n'est-ce pas ?

R.—Qu'est-ce que vous entendez par plusieurs fois ?

Q.—Trois ou quatre, quatre ou cinq.

R.—Peut-être deux ou trois, mais pas quatre ou cinq.

Q.—Au meilleur de votre souvenir cela ne se serait pas répété plus que trois (3) fois ?

R.—Environ.

30 Q.—Iriez-vous jusqu'à dire qu'il n'y a pas d'endroit où cela s'est fait même quatre (4) fois ?

R.—Par couche ?

Q.—Oui.

R.—Non. Voici, pour mieux se comprendre : est-ce qu'il s'agit du canal de dérivation ?

Q.—Non, sur toute la fondation.

R.—En général. l'excavation je demandais d'en enlever de deux à cinq pieds, en général, et de deux jusqu'à sept (7), huit (8) pieds, et davantage.

40 Q.—Y a-t-il des endroits où vous avez fait enlever quatre (4) couches différentes avant de trouver quelque chose de satisfaisant comme fondations ?

R.—Quatre couches différentes ?

Q.—Oui ?

R.—Dans le canal de dérivation le roc mis à découvert était bon comme dûreté, mais seulement les couches étaient séparées par des fissures. Alors, je ne pouvais pas d'avance dire s'il fallait en enlever trois, cinq ou dix pieds.

Q.—Je ne vous en fait pas un reproche, vous n'aviez pas

L. A. DUBREUIL (pour la Défenderesse) Contre-interrogé.

de carotte, alors, il vous fallait procéder au fur et à mesure que vous voyiez ce qui était révélé vous décidiez si oui ou non c'était suffisant ?

R.—Oui, monsieur.

10 Q.—Je vous demande s'il n'est pas arrivé qu'il a fallu même quatre fois de suite, recommencer l'opération ?

R.—Bien, quatre ou trois, il y a déjà trois ans de cela. Il est possible que ce soit allé à quatre.

Q.—Maintenant, quant à votre journal, vous avez dit à M. Geoffrion que vous considérez qu'il était la propriété de la Commission. Lorsque vous avez quitté l'emploi de la Commission vous l'avez laissé comme une partie des archives de la Commission ?

R.—Oui, monsieur.

20 Q.—Mais lorsqu'il s'est agi de remettre la main dessus ce matin, il est à votre connaissance qu'en fait il était en la possession des officiers de la James Maclaren Co. ?

R.—Si je n'étais pas certain ce matin, c'est parce que je les ai déjà vus dans les mains des officiers de la compagnie.

Q.—Comme eux paraissent l'avoir eu, voulez-vous me permettre de jeter un coup d'oeil dessus ?

R.—Certainement.

Q.—Vous me montrez un volume qui paraît commencer le onze (11) avril ?

30 R.—Oui, monsieur, le onze (11) avril mil neuf cent vingt-neuf (1929).

Q.—Vous n'avez pas de journal avant cette date-là ?

R.—Non. Le onze (11) avril, c'est la date à laquelle je suis arrivé sur le chantier de construction.

Q.—Je croyais que vous aviez fait une visite en février ou vous aviez vu une partie des travaux d'excavation dans le canal de dérivation ?

R.—Oui, mais ce n'est pas consigné dans le journal.

40 Q.—Vous rappelez-vous si lors de cette visite le professeur Mailhiot se trouvait sur les lieux ?

R.—Il m'accompagnait pour aller examiner le roc sur lequel devait s'asseoir le barrage, dans la partie du canal de dérivation.

Q.—C'était l'objet de votre visite ?

R.—C'était l'objet de notre visite.

Q.—Examiner le roc dans le canal de dérivation ?

R.—Oui, à l'endroit de la base du barrage.

Q.—Avez-vous eu connaissance qu'après avoir fait cela pour la Commission, M. Mailhiot a été invité par M. Bishop à aller

L. A. DUBREUIL (pour la Défenderesse) Contre-interrogé.

voir la dureté du matériel qu'il y avait plus bas dans le canal de dérivation ?

R.—Je me rappelle que M. Bishop a causé avec M. Mailhiot à ce sujet-là.

10 Q.—Mais vous vous n'avez pas fait d'examen particulier de ce matériel ?

R.—Non, monsieur, étant donné que c'était en dehors de l'excavation requise pour le barrage proprement dit, cela ne m'intéressait pas.

Q.—Tout ce qui vous intéressait c'est ce qui était dans la ligne de la base du barrage proprement dite ?

R.—Dans la limite de la base du barrage.

Q.—Même dans ces limites ce qui vous intéressait c'était la suffisance du roc pour porter la fondation ?

20 R.—Oui, monsieur.

Q.—Quant à ce que cela pouvait coûter pour obtenir la fondation, vous ne vous en inquiétiez pas ?

R.—Non, monsieur, généralement.

Q.—Votre mission était de vous assurer que le résultat serait bon, mais vous n'aviez pas à vous inquiéter des voies et moyens ?

R.—Non, monsieur.

30 Q.—Vous dites que dans les limites de la base il y avait à la surface de la terre ordinaire. Avez-vous remarqué sur quelle profondeur, à peu près ?

R.—Non. De mémoire peut-être quatre ou cinq pieds de terre ordinaire à la surface.

Q.—Et, en dessous de cela, sable, gravier et cailloux ?

R.—Oui, monsieur.

Q.—Avez-vous remarqué si ce sable, ce gravier et ces cailloux présentaient aucune résistance résultant de ce qu'ils étaient cimentés ensemble ?

40 R.—Je n'ai pas déterminé le degré de cohésion de ce matériel, mais, en février, il faisait excessivement froid, alors la pente prise par l'excavation se rapprochait d'un angle d'environ trente (30) degrés avec le vertical.

Q.—Mais, c'aurait pu être dû à la gelée ou à la cohésion naturelle du matériel ?

R.—Ou aux deux.

Q.—Mais comme cela ne vous intéressait pas, vous n'avez pas cherché à déterminer quel était le degré de cohésion naturelle du matériel ?

R.—Non, monsieur.

L. A. DUBREUIL (*pour la Défenderesse*) *Contre-interrogé.*

Q.—Maintenant, quant à ce croquis que vous avez dans votre journal, à la date du vingt-deux (22) juillet et dont vous avez produit une copie comme D-41, le croquis dans votre journal est un croquis qui est fait de traits courants, n'est-ce pas ?

10 R.—Oui, monsieur.

Q.—Et sans même vous être donné la peine de joindre par exemple dans le caisson dont il s'agit démontrant la position, les coins, simplement des coups de plume ?

R.—C'est un croquis.

Q.—Et ce croquis est inscrit, n'est-ce pas comme aide mémoire et non pas du tout pour indiquer la position exacte relative des différentes unités ?

R.—Oui, monsieur, pas la position exacte.

Q.—Comme aide mémoire seulement ?

20 R.—Pour accompagner la note qui est là.

Q.—Pour accompagner la note et comme explication ?

R.—S'est placé en diagonal entre les deux caissons.

Q.—Pour expliquer ce que vous entendiez noter par "c'est placé en diagonal" ?

R.—Oui, monsieur

Q.—Est-ce que vous avez aucun souvenir de cela, sans la note ?

R.—Vaguement.

30 Q.—D'après vos souvenirs, est-il resté en diagonal ou si c'est un incident qui est arrivé en le plaçant et qu'il a été redressé ?

R.—Je ne sais pas, il a dû être redressé. Les plans le montreraient davantage, montreraient la position finale.

Q.—Alors, en référant au plan D-40 que M. Chagnon a produit, pour lequel il nous dit avoir déterminé par deux lignes de base la position des caissons, cela serait celui sur lequel se trouve l'indication "Elev. 103.0" ?

40 R.—Au printemps de mil neuf cent vingt-neuf (1929) il y avait deux caissons de construits, un sur la rive est, un sur la rive ouest, qui sont ces deux ici. Ensuite, plus tard, un caisson a été placé au centre.

Q.—D'après vous, le caisson qui se serait placé en diagonal serait le premier avoisinant le pilier du côté nord ?

Serait le premier qui avoisine le pilier sur la rive nord ?

R.—Il y avait un caisson sur la rive nord.

Q.—Et un caisson sur la rive sud et un autre seulement dans la rivière ?

R.—Je le crois.

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Q.—C'est ce que votre croquis indiquerait ?

R.—Ce qu'il indique.

10 Q.—Et si en fait il y en avait deux autres dans la rivière à ce moment-là, cela serait tout simplement encore une indication que vous n'y preniez pas garde, que c'était purement pour expliquer ce que vous vouliez dire par le mot "diagonal" ?

R.—Je voulais faire remarquer que le caisson ne s'était pas placé dans la position attendue, s'est placé en diagonal.

Q.—Vous savez qu'il a été redressé ensuite ?

R.—Fort probable.

Q.—Vous avez continué à résider comme ingénieur sur les lieux ?

R.—Oui. Mais, voici, j'ai un croquis ici, j'ai ces dessins-là. Maintenant, lesquels des caissons indiqués sur le plan No. 20 C-26-39 correspondent aux caissons indiqués sur le croquis ?

Q.—Vos souvenirs ne sont pas assez précis pour vous permettre de dire si au moment où vous avez fait vos croquis il y avait deux ou trois caissons dans la rivière ?

R.—Il y avait trois (3) caissons, tel qu'indiqué par le croquis. Mon souvenir se borne là.

Q.—Un sur chaque rive et un dans le milieu ?

R.—Oui, monsieur.

30 Q.—Et c'est au moment où on plaçait le quatrième qu'il se serait mis de travers ?

R.—Oui. Ou encore, pour mieux préciser, je peux faire voir par le croquis qu'il y avait deux couvertures, une du côté sud et une du côté nord. Du côté nord, un caisson a été descendu, il s'est placé en diagonal entre les caissons voisins.

Q.—Mais si on vous disait qu'à ce moment-là il y avait non seulement le caisson sur la rive nord, mais qu'il y avait un caisson dans la rivière, contigu à celui de la rive nord ?

R.—C'est possible.

40 Q.—Ai-je compris que vous aviez une note du treize (13) juillet que le débit de la rivière était de dix mille pieds cubes seconde ?

R.—Le treize (13) juillet mil neuf cent vingt-neuf (1929) : "Débit rivière, dix mille pieds cubes secondes et plus."

Q.—Est-ce que c'était à peu près le débit régulier de l'été, ou si c'était encore un débit extra ordinaire, dû à la crue des eaux du printemps ?

R.—Je ne le sais pas. Il me faudrait voir la coupe des débits donnant l'origine de la rivière.

Q.—Est-ce ce qui apparaît dans le rapport de la Commis-

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sion de mil neuf cent trente (1930)? De mémoire vous ne pouvez pas dire si c'était un débit extraordinaire ou à peu près un débit normal?

R.—Non, je ne peux pas le dire de mémoire.

10 Q.—S'il y avait eu quoi que ce soit d'extraordinaire, est-ce que vous n'auriez pas pris cela en note ou un souvenir qui vous indiquerait cela?

R.—Il est possible.

Q.—C'est vous qui étiez en charge pour la Commission à l'endroit en question jusqu'au mois de mai mil neuf cent trente (1930)?

R.—Oui, monsieur, jusqu'en mai environ, mil neuf cent trente (1930).

20 Q.—Et c'est vous qui fournissiez les rapports pour les fins de la Commission à l'ingénieur en chef M. Lefebvre?

R.—Oui, monsieur.

Q.—Est-ce vous qui auriez fourni ce renseignement qui apparaît à la page soixante et quinze (75) du rapport concernant l'assèchement et qui se lit comme suit: "The unwatering of the dam site was quite difficult and the work was delayed a few months on that account."?

R.—Non, ce n'est pas moi, tel qu'écrit, non, monsieur.

30 Q.—Je ne veux pas dire la phraséologie, mais est-ce vous qui avez donné les renseignements qui ont été résumés pour les fins du public dans cette phrase-là, ou plutôt pour les fins du rapport?

R.—Ils ont pu être mis en en faisant un résumé de tous les rapports que je faisais à toutes les semaines à M. Lefebvre.

Q.—Avez-vous votre journal du seize (16) novembre mil neuf cent vingt-neuf (1929)?

R.—Oui, monsieur.

40 Q.—Je comprends que vous constatiez une partie de vos observations dans le journal et une autre partie par des photographies que vous faisiez et que vous datiez avec les notes descriptives?

R.—Oui, monsieur.

Q.—Avez-vous dans votre journal quoi que ce soit concernant l'élévation de l'eau entre les batardeaux à cette date-là?

R.—Le seize (16) novembre mil neuf cent vingt-neuf (1929): "Assèchement, trois pompes eau entre batardeau et élévation 86.2."

Q.—C'est bien aux élévations 86.2 qui apparaissent sur l'exhibit D-27?

R.—Oui, monsieur.

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Q.—Ceci vous permet de dire que la photographie D-27 montre la situation alors que l'élévation de l'eau est à 86.2 ?

R.—Oui, monsieur.

10 Q.—Sur le caisson qui paraît le plus près de l'appareil photographique nous voyons un certain nombre de courses de billots ?

R.—Oui, monsieur.

Q.—Combien de ces courses de billots seraient cachés par l'eau à l'élévation 90.2, quatre pieds plus haut ?

R.—Je ne sais pas, monsieur. Il n'y a rien qui me permet de le dire.

Q.—Vous savez quelle est la hauteur approximative, je ne vous demande pas de l'exactitude, mais savez-vous quelle est la hauteur approximative de ces courses de billots ?

20 R.—Ca varie avec la grosseur des billots qu'on emploie pour faire les caissons.

Q.—Mais en regardant la photographie, est-ce que quatre pieds de plus d'eau ne cacheraient pas les deux billots inférieurs que nous voyons dans ce caisson-là, au moins ?

R.—Quatre pieds plus haut cacheraient les deux billots montrés horizontalement ?

Q.—Oui.

R.—Oui, monsieur, quatre pieds d'eau cacheraient.

30 Q.—Vous n'avez pas, d'après vos souvenirs, de photographies qui montreraient cela avec l'eau à environ 90, intérieur du batardeau ?

R.—Avez-vous la série de toutes les photographies ici ?

Q.—Vous allez être obligé de repasser cette série pour vérifier les inscriptions sur le dos ?

R.—Oui, monsieur.

Q.—Alors, en les repassant, si vous en trouviez une qui montrait l'eau à l'intérieur du batardeau à l'élévation 90, voudrez-vous me la signaler quand vous viendrez certifier l'exactitude de ces inscriptions ?

R.—Oui, monsieur.

40 Q.—Maintenant, quand les palplanches ont été placées vous avez dû, je présume, trouver qu'on leur donnait une forme qui sort de l'ordinaire ?

R.—Que l'on donnait aux palplanches ?

Q.—Que l'on donnait à l'alignement des palplanches devant les piliers une forme qui sort de l'ordinaire ?

R.—Qui sort de la ligne droite.

Q.—Et qui est à une distance assez sensible de la face des piliers ?

R.—Oui, monsieur. .

L. A. DUBREUIL (pour la Défenderesse) Contre-interrogé.

Q.—Savez-vous pourquoi on a donné cet alignement aux palplanches ?

R.—Parce que les caissons sur lesquels devaient s'appuyer les palplanches n'étaient pas placés en ligne droite.

10 Q.—Est-ce la seule raison pour mettre cela un dix, douze ou quinze pieds plus haut que les caissons ?

R.—C'en est une.

Q.—Y a-t-il aucune autre raison ?

R.—Oui, je présume qu'il y en a d'autres.

Q.—Quelles autres raisons ?

R.—Je ne m'en rappelle pas dans le moment.

Q.—Vous rappelez-vous s'il y a eu une accumulation de billots sur la face de ces piliers-là le vingt-deux juillet, dans la nuit du vingt-deux ou vingt-trois juillet ?

20 R.—Je ne me rappelle pas d'une accumulation de billots.

Q.—Vous ne vous rappelez pas que des billots sont descendus et se sont accumulés sur la face de ces piliers dans la nuit du vingt-deux (22) au vingt-trois (23) juillet ?

R.—Je ne me rappelle pas.

Q.—Sans vous rappeler la date, vous rappelez-vous qu'en aucune circonstance il se soit accumulé des billots — là et qu'on a fait ensuite pendant plusieurs jours des efforts considérables pour les tirer de l'eau et qu'on a prétendu qu'il en était resté pris dans les piliers ?

30 R.—Je ne me rappelle pas d'une accumulation de billots en amont des batardeaux dans la rivière proprement dite, non, monsieur.

Q.—Vous rappelez-vous si à aucun moment on a fait du travail là pour arracher des billots qui étaient pris dans la face amont des piliers, des caissons ?

40 R.—Il est possible qu'on en ait enlevé, mais je n'ai jamais remarqué un travail considérable ou qui aurait pu attirer mon attention, à tel point, parce que je l'aurais pris en note.

Q.—Avez-vous jamais demandé pourquoi les palplanches se plaçaient à une douzaine ou à une quinzaine de pieds de distance des caissons eux-mêmes surtout devant les caissons sur le plan P-37 portant les numéros 2 et 4 ?

R.—Est-ce qu'il n'y a pas eu d'autres caissons de construits ou un échafaudage, c'est-à-dire du "crib work" de construit en amont de ces caissons-là ?

Q.—Vous, vous y étiez, moi, je n'y étais pas.

L. A. DUBREUIL (pour la Défenderesse) Contre-interrogé.

R.—Je dois vous dire que depuis que je suis parti de la rivière du Lièvre, je n'ai examiné ni les plans ni le dossier, et toutes les choses que vous me demandez de mémoire, je ne peux que m'en rappeler vaguement.

10 Q.—Vous rappelez-vous si sur la face amont de ces caissons il a été construit des échafaudages ou "crib work" avant de placer les palplanches ?

R.—Oui, monsieur.

Q.—Vous rappelez-vous pourquoi ç'a été fait ?

R.—Parce que, d'abord, les caissons n'étaient pas en ligne droite, il fallait combler les espaces laissés libres, si un caisson était ou trop en amont ou trop en aval.

Q.—Si vous prenez pour acquit que le travail de M. Chagnon, qui était, je comprends, votre assistant ?

20 R.—Oui, monsieur.

Q.—Si vous prenez pour acquit que le travail de M. Chagnon montre exactement la position du pilier du côté sud et des deux parties les plus rapprochées de ce pilier, est-ce que vous suggérez que si on a fait des échafaudages devant ces deux caissons ç'a été parce que la face amont des caissons ne formait pas une ligne droite ?

R.—Non, pas dans ce cas-ci.

30 Q.—Pour les deux caissons que je viens de vous signaler, quelle raison a-t-on eue de faire des échafaudages ou "crib work" devant les caissons ?

R.—Je n'en sais rien.

Q.—Vous ne le savez pas ?

R.—Non.

Q.—Vous étiez sur les lieux ?

R.—J'étais sur les lieux.

Q.—Votre curiosité n'a pas été frappée par cela ?

R.—Ma curiosité a été frappée en général par l'alignement des caissons qui étaient en dehors de l'ordinaire.

40 Q.—Et vous n'avez pas demandé pourquoi on faisait cet échafaudage devant les caissons en question ?

R.—Moi, je ne sais pas si un échafaudage a été fait du côté nord. S'il a été fait un échafaudage en amont des trois caissons montrés sur le plan C-26-39, je ne m'en rappelle pas. Je me rappelle qu'un autre caisson a été construit sur place.

Q.—Devant celui sur lequel il y a élev. 103 ?

R.—Devant celui sur lequel il y a élev. 103, pour combler le vide.

Q.—Jurez-vous que vous ne vous rappelez pas qu'il y avait.

L. A. DUBREUIL (pour la Défenderesse) Contre-interrogé.

des billots pris là-dedans et qu'on a construit des échafaudages pour avoir une surface plane sur laquelle on pouvait places les palplanches ?

R.—Je jure que je ne me rappelle pas d'avoir vu d'em-
10 bâcle de billots, là.

Q.—Et vous ne voulez pas me donner d'autre réponse que cela ?

R.—Oui, monsieur. Je peux vous donner d'autres réponses si vous me poser d'autres questions.

Q.—A la question posée, vous ne voulez pas me donner d'autre réponse que celle-là ?

R.—Non, je ne peux pas jurer que j'ai vu une embâcle de billots en amont.

Q.—Je ne demande pas si vous avez vu un embâcle de bil-
20 lots en amont, je demande de jurer si vous ne savez pas personnellement, ayant été sur les lieux que la raison, qu'elle fut fondée ou non, qu'on a donnée pour avoir placé ces palplanches suivant cette ligne extraordinaire, c'est qu'on prétendait qu'il y avait des billots pris dans la face amont des caissons et qu'il fallait faire cet échafaudage pour avoir une surface plane sur laquelle on pourrait placer les palplanches ?

R.—Je ne me rappelle pas d'aucun embâcle de billots à cet endroit.

Q.—C'est tout cela ?

30 R.—Oui, monsieur.

Q.—Vous ne pouvez pas donner d'autre réponse ?

R.—Non, monsieur.

Q.—Et vous avez été là tout le temps ?

R.—Oui, monsieur.

Par Me Geoffrion, C. R. :—

Q.—Vous avez référé à des notes de votre journal du
40 vingt-deux (22) juillet, ensuite, je vous ai fait sauter jusqu'au deux (2) août, mais le vingt-trois (23) juillet, avez-vous des notes quelconques ?

R.—Le vingt-trois (23) juillet mil neuf cent vingt-neuf (1929) j'ai des notes.

Q.—Le vingt-quatre (24) aussi ?

R.—Oui, monsieur.

Q.—Y a-t-il une référence quelconque à des billots ou à un embâcle de billots, ces jours-là ?

R.—Non, monsieur, je n'en ai pas, le vingt-trois (23) ni le vingt-quatre (24) juillet.

O. LEFEBVRE (*pour la Défenderesse*) *Examen en chef.*

Q.—Dans la rivière, vous n'en avez pas?

R.—Non, monsieur.

10 Q.—On vous a parlé de carotte, pour l'excavation. Dans les autres travaux de ce genre-là, que vous avez surveillés, est-ce que vous preniez des carottes pour savoir quelle excavation faire?

R.—Un seul cas, je crois, au barrage Gouin, il y a eu des forages de faits.

Q.—Dans les autres cas, il n'y a pas eu de forages?

R.—Il n'y a pas eu de forages donnant une carotte comme échantillon.

Q.—Combien en avez-vous surveillé, à peu près?

20 R.—J'ai surveillé la construction d'une douzaine de barrages de différentes dimensions, de différents types.

Et le déposant ne dit rien de plus.

DEPOSITION DE OLIVIER LEFEBVRE

Témoin produit de la part de la défenderesse.

30 Ce dixième jour du mois de mars de l'an mil neuf cent trente-trois, a comparu Olivier Lefebvre, ingénieur civil, âgé de cinquante-trois ans, demeurant au No 26 Avenue Robert, Outremont, témoin produit de la part de la défenderesse.

Lequel, après serment prêté sur les saints Evangiles, dépose et dit:

Interrogé par Me Aimé Geoffrion, C. R., procureur de la Défenderesse:—

40 Q.—Vous êtes l'ingénieur en chef de la Commission des Eaux Courantes de Québec?

R.—Oui, monsieur.

Q.—Depuis combien de temps?

R.—Depuis février mil neuf cent treize (1913), vingt ans.

Q.—Et vous pratiquiez le génie civil avant cela?

R.—Oui, monsieur.

Q.—Depuis combien de temps?

R.—De mil neuf cent deux (1902). Je suis gradué de l'E-

O. LEFEBVRE (pour la Défenderesse) Examen en chef.

cole Polytechnique en 1902, et je pratique le génie civil depuis ce temps-là.

10 Q.—Vous connaissez la digue dont il s'agit en cette cause, digue qui a été construite au Rapide des Cèdres, sur la rivière du Lièvre ?

R.—Oui, monsieur.

Q.—Le fait est que cette digue bien que construite par la Compagnie MacLaren, étant une digue pour faire et recevoir de l'emmagasinage, devait devenir la propriété du Gouvernement de Québec ?

R.—Oui, monsieur.

Q.—Sous le contrôle de la Commission ?

20 R.—Le Gouvernement fait opérer le barrage sous le contrôle de la Commission.

Q.—Il était partie de votre devoir comme chef, et de vos subalternes, de voir à ce que la digue soit construite à votre goût, solide ?

Q.—C'est une des conditions du contrat entre le Gouvernement et la compagnie MacLaren.

Q.—Donc, vous connaissez bien cette digue-là ?

R.—Oui, monsieur.

30 Q.—Et les lieux où elle a été construite évidemment ? Pouvez-vous nous dire si vous avez eu de l'expérience dans la construction de digues de ce genre ?

R.—Oui, monsieur.

Q.—D'abord, pour la Commission, en avez-vous construit ou surveillé la construction de beaucoup ?

R.—Je n'ai pas actuellement surveillé de construction, parce qu'il y avait toujours un ingénieur résident qui faisait le travail.

Q.—Sous votre contrôle ?

40 R.—Oui, mais j'ai eu connaissance de la construction du barrage Gouin, sur le St-Maurice, du barrage Allard, sur le St-François, et d'un barrage au Lac Kénogami, sur la rivière Ste Anne de Beaupré, du barrage sur la rivière Métis, du barrage sur la rivière Gatineau, et ce dernier que nous avons eu à construire, le barrage de la rivière du Lièvre. Avant cela j'avais surveillé pour le Département des Travaux Publics à Ottawa, la construction d'un barrage sur la rivière Montreal River à Lachford, pas loin de Cobalt.

Q.—Pour ce barrage vous en avez eu connaissance ?

R.—J'en ai eu la responsabilité, une responsabilité technique.

O. LEFEBVRE (pour la Défenderesse) Examen en chef.

Q.—Vous êtes président de la Société des Ingénieurs Civils du Canada, n'est-ce pas ?

R.—Oui, monsieur. Actuellement je suis Membre de la Corporation des Ingénieurs Professionnels de Québec.

10 Q.—Avez-vous visité pendant les travaux d'excavation du canal de dérivation le terrain où il se faisait ?

R.—Non, monsieur. Ma première visite à l'emplacement du barrage de la rivière du Lièvre a été faite, je crois, le vingt-sept (27) avril mil neuf cent vingt-neuf (1929).

Q.—Êtes-vous allé sur les excavations pour le canal de dérivation ?

R.—Oui, monsieur.

Q.—Elles étaient finies dans ce temps-là ?

R.—Il faudrait référer à mes notes pour voir à quel état
20 était l'excavation.

Q.—Dans tous les cas, si ce n'était pas complètement fini, c'était avancé toujours ?

R.—Le canal de dérivation était avancé.

Q.—Avez-vous examiner le matériel qu'il y avait à excaver ou qui avait été excavé ?

R.—J'ai examiné ce matériel d'une façon sommaire, parce que je n'étais pas particulièrement intéressé à sa nature. J'ai une note ici, prise sur le terrain qui indique que je me suis intéressé d'une façon toute particulière à la nature du roc, sur
30 lequel le barrage devait être assis.

Q.—Quant au sol, au-dessus du roc, vous ne vous en êtes pas intéressé ?

R.—Non, monsieur.

Q.—Êtes-vous capable de dire cependant si cela pourrait être du "hard pan" ?

R.—Qu'est-ce que vous appelez du "hard pan" ?

Q.—Je demande qu'est-ce que c'est que du "hard pan". Dites d'abord ce que c'est que le "hard pan", et si vous en avez constaté ?

40 R.—Ce qui ferait mieux mon affaire de dire, ce qui est vrai, d'ailleurs, c'est que je n'ai pas constaté quoi que ce soit de particulier quant à la nature de ce matériel.

Q.—Êtes-vous capable de donner la définition de ce qui est communément appelé "hard pan" ?

R.—Tout le monde ne s'entend pas là-dessus, et c'est pour cette raison, parce qu'on ne s'entend pas que nous, à la Commission des Eaux Courantes nous avons éliminé de notre classification ce matériel à excaver, ce type, et nous n'avons que deux classes d'excavation : le roc et la terre.

O. LEFEBVRE (pour la Défenderesse) Examen en chef.

Q.—Pouvez-vous nous dire s'il y a une grande différence entre excaver ce qu'on appelle du "hard pan" ou faire l'excavation de terre mélangée de sable, de gravier et de grosses pierres "boulders", en hiver, lorsque le sol est gelé?

10 R.—Je dois vous avouer que mon expérience quant à l'excavation de matériel qui n'est pas du roc en hiver est très minime.

Q.—Voulez-vous, s'il vous plaît jeter un coup d'oeil sur le plan B-2-444, qui a été produit en cette cause, vous constaterez sur ce plan, à partir de la station 4, il y a une ligne traversant directement la rivière et qui contient sept niveaux suivis de la lettre "L", voulant dire "ledge". Vous savez sans doute, dans tous les cas prenons-le pour acquit, que c'est approximativement là qu'a été placé le batardeau. Pouvez-vous nous
20 dire si ces renseignements donnés sur ce plan étaient tels que l'on pouvait sans enquête additionnelle quant à la nature du fond de la rivière, construire et placer le batardeau ?

R.—Ces renseignements sont indicateurs d'une façon générale de ce à quoi on peut s'attendre quant à la hauteur du lit de la rivière, mais je ne pense pas que personne ne s'aventure à construire un batardeau destiné à s'ajuster au lit de la rivière en se limitant aux renseignements fournis sur la ligne de sondage en question.

30 Q.—Vous remarquerez que les sondages sont espacés d'environ vingt (20) pieds chacun ?

R.—Je ne sais pas quelle est l'échelle.

Q.—Ils indiqueraient à ces six ou sept endroits qu'à une profondeur donnée il y a de la pierre ?

R.—A peu près cela.

Q.—Etes-vous en état de nous dire quelle est la première opération que la construction de batardeau doit faire, un constructeur muni de ce plan-là ?

40 R.—Cela dépend voyez-vous des conditions auxquelles il s'attend, mais généralement on pratique toute une série de sondage à espaces très rapprochés pour avoir une idée exacte et détaillée des diverses hauteurs du lit de la rivière, et on essaie autant que possible de construire la base du batardeau pour qu'en le calant ce batardeau s'ajuste aux aspérités, au lit de la rivière.

Q.—Il faut donc d'abord trouver les aspérités, construire le batardeau pour qu'il s'ajuste ?

R.—On essaie de faire cela.

Q.—A quelle distance l'un de l'autre devaient être pris les sondages, d'après votre expérience ?

O. LEFEBVRE (pour la Défenderesse) Examen en chef.

R.—Cela dépend des accidents du terrain. J'ai vu au barrage Gouin, on a pris des sondages à tous les deux pieds.

10 Q.—Avez-vous vu la nature de ce qui recouvrait le roc à l'endroit où l'on a placé la digue elle-même, après qu'on eut enlevé l'eau ?

R.—Non, monsieur. Ma dernière visite sur les lieux a été faite le vingt-huit (28) septembre mil neuf cent vingt-neuf (1929), et c'est après cette visite qu'on a réussi à assécher le lit de la rivière. Ensuite, je n'ai pas vu le lit.

Q.—Quand vous y êtes allé, est-ce que l'assèchement était assez avancé pour que vous puissiez juger un peu de la nature de ce qu'il y avait au fond de la rivière ?

R.—Non, monsieur.

20 Q.—On a une réclamation à propos de l'excavation du roc. M. Dubreuil qui vient de témoigner a expliqué comment il l'avait conduite, est-ce qu'il faisait rapport ?

R.—Oui, monsieur.

Q.—Les instructions sur la façon de conduire venait-elles de vous ?

R.—Les instructions étaient de creuser jusqu'au moment où on eut atteint le bon roc. Maintenant, je n'ai pas donné d'instructions quant à la méthode à suivre ou pour atteindre le bon roc.

30 Q.—C'est M. Dubreuil qui avait charge de cela ?

R.—C'était une question à régler entre l'entrepreneur et l'ingénieur résident.

Q.—Du moins votre ingénieur résident ?

R.—Oui.

Q.—On a parlé de faire du forage pour tirer des carottes, pour connaître la nature du roc. Pouvez-vous dire quel résultat cela donne au point de vue économie dans le nombre de couches que l'on fait sauter, et si c'est la pratique ?

40 R.—Dans la pratique c'est très commode pour l'ingénieur qui surveille des travaux et qui a à préparer des plans d'un barrage d'avoir des échantillons de roc sur lequel le barrage sera assis. Mais ce n'est pas une certitude que des surprises ne se produiront pas quand même dans la nature du roc, à moins de faire un forage dans une faille, même les indications fournies ne sont pas une garantie qu'on ne trouvera pas des surprises.

Q.—Au point de vue du grief qu'on fait ici, qu'on a été forcé à enlever du roc par tranches trop minces, un témoin a suggéré qu'on a dû donner vingt (20) pieds ou dix (10) pieds, faire sauter vingt (20) pieds ou dix (10) pieds à la fois. Au point de

O. LEFEBVRE (pour la Défenderesse) Contre-interrogé

vue de l'épaisseur des couches que l'on enlevait, est-ce que des forages auraient été d'un gros secours ?

10 R.—Probablement que les forages auraient été une indication assez importante, mais je dois expliquer que dans le cas où on excave du roc pour asseoir un barrage dans une tranchée, comme c'était le cas au barrage des Cèdres, la seule pratique vraiment justifiable et celle que nous avons suivie c'est de procéder par étape, parce que même si nous avions su d'avance que nous devons excaver dix à douze pieds, nous n'aurions pas permis à l'entrepreneur d'aller à la pleine profondeur parce qu'en dynamitant à cette profondeur on aurait disloqué trop de roc dans les environs.

Q.—Vous dites qu'ici, la méthode par section qui a été suivie est conforme à la pratique ?

20 R.—Est absolument conforme à notre pratique à nous.

La présente déposition est alors ajournée à deux heures et trente de l'après-midi.

Advenant deux heures et trente de l'après-midi, le témoin comparait de nouveau et continue comme suit, sa déposition :

Par Me Geoffrion, C. R. :—

30 Q.—Je vous montre encore le plan B-2-444 et j'attire de nouveau votre attention sur les chiffres dans le lit de la rivière indiquant les profondeurs et suivant de la lettre "L" qui veut dire "Ledge", il y en a plusieurs rangées. Voulez-vous regarder cela s'il vous plaît ? Je veux savoir de vous, si, pour quelqu'un lisant ce plan-là, ce plan comporte qu'il y a eu du "core drill" ou simplement des sondages ?

40 R.—Le plan est très clair pour moi, il indique les sondages seulement. Il ne prétend pas autre chose, non plus. Je ne pense pas.

Contre-interrogé par Me Saint-Laurent, C. R., procureur des Demandeurs :—

Q.—Vous liriez ce plan comme indiquant des sondages ayant porté aux endroits où il y a la lettre "L" sur le roc ?

R.—Oui, monsieur.

Q.—Sur le roc nu à ces endroits-là ?

R.—Oui.

O. LEFEBVRE (pour la Défenderesse) Contre-interrogé

Q.—Comme vous l'avez dit, vous êtes et vous étiez l'ingénieur en chef et le directeur de la Commission des Eaux Courantes pendant les années dont il s'agit en cette cause?

R.—Oui, monsieur.

10 Q.—Je présume que c'est vous qui avez fait ou fait faire le rapport concernant les travaux qu'il y a dans le dix-huitième rapport publié, celui de mil neuf cent vingt-neuf (1929)?

R.—C'est moi qui l'ai écrit.

Q.—Ce qu'il y a à la page soixante et quinze (75) concernant l'assèchement "The unwatering of the dam site was quite difficult and the work was delayed a few months on that account.

20 Pouring concrete will have to be made during most of the winter and the work will be completed early in the spring." est un sommaire de l'information que vous aviez concernant ce qui s'était passé, ce qui se passait et ce qui allait se passer jusqu'au printemps?

R.—Oui, monsieur.

Q.—Répondant à une question qui vous a été posée au sujet du "hard pan", vous avez dit, je crois que votre pratique maintenant était de faire vos devis et contrat pour ne pourvoir qu'à deux classes de déblais: le roc et tout ce qui n'était pas roc, dans l'autre classe?

30 R.—Oui, monsieur.

Q.—Je présume que vous le stipulez expressément dans vos contrats et dans vos devis?

R.—Absolument.

Q.—Et lorsque vous avez dit: "Nous avons éliminé cette classe de "hard pan", vous vouliez dire par les termes exprès de vos contrats et de vos devis, vous déclarez à l'entrepreneur qu'il n'y aurait aucune telle classification?

R.—Oui, monsieur.

40 Q.—Que tout ce qui ne sera pas roc, et je présume que vous mettez une définition de ce qui doit être considéré comme roc?

R.—Oui, monsieur.

Q.—Sera payé dans l'autre classe?

R.—Oui, monsieur.

Par Me Geoffrion, C. R.:—

Q.—Voulez-vous donner un exemple de cela?

R.—Notre devis du lac Kénogami est très clair.

O. LEFEBVRE (pour la Défenderesse) Contre-interrogé

Par Me Saint-Laurent, C. R. :—

Q.—Vous dites expressément à ceux qui vont vous soumettre leur prix pour les déblais, roc défini de telle façon, vous
10 aurez tel prix, vous aurez le prix stipulé pour le roc ?

R.—Oui, monsieur.

Q.—Et, pour tout autre déblai, quelle qu'en soit la dureté, vous aurez l'autre prix, que vous aurez stipulé ?

R.—C'est cela.

Q.—Quand vous avez visité le canal de dérivation pour la première fois, je comprends que c'était le vingt-sept (27) avril
mil neuf cent vingt-neuf (1929) ?

R.—Oui, monsieur.

Q.—Le dégel était déjà commencé à ce moment-là, je présume ?
20

R.—Était très avancé.

Q.—Et ce dégel avait dû faire couler diverses choses sur la face de la coupe ?

R.—Je n'ai pas remarqué cela.

Q.—Si vous aviez eu à vous prononcer sur la dureté naturelle du matériel, auriez-vous été obligé de faire faire des opérations que vous n'avez pas faites ?

R.—Oui, monsieur.

Q.—Ai-je compris que votre dernière visite était le vingt-huit (28) septembre mil neuf cent vingt-neuf (1929), ou si c'était
30 seulement la dernière visite pendant la saison de mil neuf cent vingt-neuf (1929) ?

R.—La dernière visite durant la saison de mil neuf cent vingt-neuf (1929).

Q.—Vous y êtes retourné ensuite ?

R.—Je suis retourné ensuite, seulement au mois de mai mil neuf cent trente (1930).

Q.—Lorsque vous y êtes retourné, au mois de mai mil neuf cent trente (1930), avez-vous pu constater par ce que vous avez
40 vu et par ce que vous aviez appris par les rapports qui vous avaient été fournis par vos subalternes, que vos prévisions, que le coulage du béton devait se faire pendant la plus grande partie de l'hiver, s'étaient réalisées ?

R.—Oui, monsieur.

Q.—Êtes-vous d'avis que le bétonnage en hiver est plus ou moins dispendieux qu'en été ?

R.—Est plus dispendieux qu'en été.

Q.—Lorsqu'on a un côté d'une rivière, disons, cent cin-

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quante (150) pieds de largeur en rocher abrupt, et l'autre côté en rocher à pente moins abrupte, mais du rocher nu des deux côtés et qu'on a une série ou plusieurs séries de sondages à travers le lit de la rivière portant sur les rochers nus, y a-t-il lieu de prévoir qu'il peut y avoir beaucoup de rugosité qui ne seraient pas représentées par ces sondages ?

10

R.—Je pense que oui.

Q.—Est-ce que si vous avez du roc nu des deux côtés et que les sondages démontrent que le roc est nu dans le lit, vous n'avez pas un lit avec contour assez régulier ?

R.—Pas dans cette formation-là.

Q.—Est-ce une formation à couche brisée ?

R.—Oui.

Q.—Et alors, les rugosités proviennent de la dureté respective des différentes couches ?

20

R.—C'est un terrain qui est très accidenté. C'est tout brisé, et le lit de la rivière est accidenté comme le terrain en dehors de la rivière est accidenté.

Q.—La seule visite que vous avez faite pendant qu'on avait ces difficultés avec l'assèchement, c'est celle du vingt-huit (28) septembre mil neuf cent vingt-neuf (1929) ?

R.—Non, parce que dès le mois d'août mil neuf cent vingt-neuf (1929), on avait des difficultés à étancher le batardeau amont. J'ai fait une visite, le sept (7) août mil neuf cent vingt-neuf (1929), et on avait difficulté dans ce temps-là à étancher le batardeau amont.

30

Q.—Vous rappelez-vous si le sept (7) août on avait commencé la pose des palplanches ou si on avait simplement les caissons de placés ?

R.—Je pense que le sept (7) août on essayait d'arrêter une fuite qu'il y avait près de la rive sur le côté nord. Maintenant, ce qu'on avait fait dans le reste, je ne m'en rappelle pas.

Q.—Les indications sur le plan P-37 seraient à l'effet que le dernier caisson aurait été placé le trois (3) août mil neuf cent vingt-neuf (1929) ?

40

R.—Le dernier caisson ?

Q.—Le dernier caisson, caisson No 4 ?

R.—C'est cela, oui monsieur. Et le sept (7) août on avait de la difficulté à étancher entre ce qu'on détermine ici comme étant le caisson No 2, et le caisson No 4.

Q.—Mais, vous rappelez-vous si on avait commencé la pose des palplanches à ce moment-là ?

R.—Je ne me rappelle pas. Ensuite, je suis retourné le premier septembre.

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Q.—Le premier septembre les palplanches étaient probablement posées ?

R.—Étaient posées. en autant que je puis me rappeler.

Q.—Vous n'avez pas fait de note spéciale ?

R.—Pas pour ces deux dates-là. Excepté qu'au premier
10 septembre, j'ai une note à l'effet que le batardeau aval était en partie posé, mais n'était pas complètement terminé.

Q.—C'est celui qui est en bas de la ligne de la chaussée, cela ?

R.—Oui.

Q.—Et la troisième visite pendant cette période serait celle du vingt-huit (28) septembre ou y êtes-vous allé entre le premier et le vingt-huit (28) ?

R.—Non. Le vingt-huit (28) septembre. Je n'y suis pas allé entre le premier et vingt-huit (1928).

20 Q.—Vous rappelez-vous si le vingt-huit (28) septembre on avait commencé le pompage ?

R.—Le vingt-huit (28) septembre on a fait un effort suprême pour essayer de baisser le niveau de l'eau entre les deux batardeaux. On avait installé tout ce qu'on avait pu trouver de pompes dans les environs, ou presque autant qu'il était possible d'en mettre en dedans du batardeau. On a fait travailler toutes les pompes en ma présence, on a essayé de baisser le niveau de l'eau, on l'a baissé un peu, mais quelque chose d'insignifiant, autant que je me rappelle.

30 Q.—Cette épreuve faite en votre présence était simplement suffisante pour vous démontrer que ce n'était pas possible d'assécher afin de rendre le batardeau d'amont plus étanche qu'il ne l'était ?

R.—Oui, monsieur.

Q.—On vous a fait un rapport ensuite de la façon qu'on avait réussi définitivement à étancher suffisamment pour pouvoir assécher avec un pompage raisonnable, là ?

R.—Oui, monsieur. On a préparé un plan qui indique l'endroit où on a posé un mur de palplanches d'acier, le nombre de
40 ces palplanches, la profondeur, etc.,

Q.—C'est un plan que vos subalternes ont fait et vous ont soumis à vous, je présume ?

R.—Oui, monsieur, le plan a été préparé par notre personnel sur le terrain.

Q.—Le plan dont vous parlez, est-ce celui qui est produit comme D-39 ?

R.—Oui, monsieur, c'est le plan produit comme D-39 et qui est classé dans nos dossiers comme C-3033.

Et le déposant ne dit rien de plus.

THOMAS F. KENNY (for Defendant) Examination in chief.

DEPOSITION OF THOMAS F. KENNY

A witness produced on behalf of Defendant.

10 On this tenth day of March, in the year of Our Lord, one thousand nine hundred and thirty-three, personally came and appeared Thomas F. Kenny, of Buckingham, Quebec, Civil Engineer, aged 58 years, a witness produced on behalf of the Defendant, who being duly sworn, doth depose and say as follows:—

Examined by Mr. Aylen, K. C., of Counsel for Defendant:—

20 Q.—You have already been sworn in this case?

A.—Yes.

Q.—Will you tell me what position you occupy with the Defendant Company?

A.—I am a director, and the chief engineer.

Q.—Previous to 1929, what position did you hold with the Maclaren Company?

A.—I have occupied this same position for a great many years. Previous to that time I also looked after the Woods department.

30 Q.—I understood Mr. Jamer to state that in the beginning of 1929 he had been Woods manager. Previous to that date were the woods operations looked after by you?

A.—Yes, I looked after it personally, until I put in Mr. Jamer.

Q.—Are you a member of the Quebec Society of Civil Engineers?

A.—Of the Professional Engineers of the Province of Quebec.

Q.—Are you a member of that body?

40 A.—Yes.

Q.—Did you graduate from any Technical School?

A.—Yes. I am a McGill graduate, a Bachelor in Applied Science.

Q.—How many years have you been engaged in lumbering operations, and in the bringing down of logs?

A.—For the past eighteen years.

Q.—Does your experience extend to the driving of logs, as well as to the woods' operations?

A.—Yes, all operations, making and driving.

THOMAS F. KENNY (for Defendant) Examination in chief.

Q.—Major McEwen, a witness examined by the Plaintiff, has given some evidence with regard to a conversation he had with you sometime before the contract in this case was signed. I understand it was in the month of August 1928. Do you recall
10 that conversation?

A.—Yes.

I think he referred to a conversation early in August, when we went over the Cedar contract.

Q.—You were present when Mr. McEwen was examined as a witness in this case?

A.—Yes.

Q.—Do you remember him speaking about logs, as being a
20 matter of conversation at that interview?

A.—Yes.

Q.—Would you tell us, according to your recollection what was said with respect to logging?

A.—Yes. The original proposition, that the tenders were on, any reference to logs had been omitted...

Q.—At the time the tender was made, there was no reference in the tender or contract, or draft contract to the logs, is that what you mean?

A.—I think I covered it in my first answer, if you will
30 let me finish it.

Q.—You said it had been omitted. Was there any special reason at the start for leaving it out?

Mr. St. Laurent:—If my recollection serves me, this evidence was objected to, and the objection maintained, when the Plaintiff made its evidence. If my learned friend wishes to prove conversations to vary the terms of the written agreement, I must object, my recollection is that Major McEwen was not
40 allowed to go any further.

His Lordship:—I will reserve the objection. Of course, you cannot contradict the writing.

By Mr. Ayles:—

Q.—Will you tell me what you recollect of the conversation with Major McEwen, in reference to the passing of logs during the construction work?

THOMAS F. KENNY (for Defendant) Examination in chief.

A.—It is that paragraph with reference to logs, which was inserted at the time by Mr. Ferguson, and my recollection is, that we explained thoroughly to Mr. McEwen, our custom in passing logs at that point, and that he was to provide facilities that the
10 logs would go through as they had been accustomed to going through. He was to look after his work in the river.

Q.—I take it then, from what you have told me, that you would not agree with Mr. McEwen when he states that their obligation would be limited to leaving openings in the dam?

A.—No, I would not.

Q.—In your opinion...

Mr. St. Laurent:—I object. I think that is perhaps a little
20 bit beyond. It may be the result of this will be to neutralize one another, and we will remain with the contract, but I do not think we should have Mr. Kenny's opinion as to what the contract means. We will take the Court's opinion as to that.

Mr. Ayles:—I am merely asking him to make his answer perfectly clear.

The Court reserves the objection.

By Mr. Ayles:—

30

Q.—With reference to the test pits that were dug by Mr. O'Shea or under his direction, did you have occasion to visit the site of the dam at Cedars at the time that investigation was being carried on?

A.—Yes, I was there several times.

Q.—Would you tell us just what you observed?

A.—I observed them digging the test pits, and the water in the pits, and the shoring, and the soil that came out of the pits.

40 Q.—What have you to say with regard to what come out of the pits?

A.—It was an old fill, and the top was a sandy loam, and that persisted in most of the holes six or seven feet down. Below that it got a little coarser, with occasional gravel. It was very plain to be seen, because the banks showed everything. It was just shovelled out alongside.

Q.—Did you notice any moisture there in the pits?

A.—Oh yes. The pits that spring were very wet. I had to provide two pumps for them. The first was a gas pump which we put in a pit, then another diaphragm later.

THOMAS F. KENNY (for Defendant) Examination in chief.

Q.—Can you tell me from what you observed there, where that water was coming from?

A.—It was coming through the ground.

Q.—Do you know what depth?

10

Witness:—How deep it was coming through?

Counsel:—How far had they got down in the pits when they found water?

A.—I saw the water in some of those holes, about six feet from the top. The water was coming in below that. The top soil was fairly dry. It was a slope that came down the top and was fairly dry at that time.

20 Q.—During the time that the by-pass was being excavated, did you have occasion to go up to the work?

A.—Yes.

Q.—Have you a note of the dates that you were there? Do you remember them?

30 A.—Yes, I remember. My first trip I think, was the 16th of November. There had been rumours of complaints, and the digging was getting hard, so I went up to have a look at it. When we got to the south we saw the derrick with the orange peel. It was not operating. There was something wrong at the time; nothing serious. The orange peel was lying on the bank, so I had a good chance to examine it, and it was in very bad condition. Two of the points were broken off and very dull. After a while, before we left, in any event, they got it down to start to dig, but it was not digging very successfully. It was too dull. The points would not stick in. There were four points, and if a point won't catch, you cannot remove anything.

Q.—Have you ever had any experience with excavating with a steam shovel?

A.—Yes, I have seen lots of it.

40

Q.—What have you to say with regard to how a steam shovel would handle that work?

A.—No trouble with a steam shovel, from what I saw that day, if they had any face at all, to start a face, no trouble.

Q.—Are you familiar with the country between Buckingham and Cedars and between Gracefield and Cedars. I understand those are the two nearest points of the railway?

A.—I am familiar with both of them.

Q.—What have you to say with regard to the possibility

THOMAS F. KENNY (for Defendant) Examination in chief.

of bringing in a steam shovel at the site of the work in the fall of 1928, or the winter of 1928 and 1929?

A.—There was no real difficulty. In the next year, 1930, another of our contractors, Mr. Carneil took in a shovel from
10 Gracefield to the cut-off dam, about a mile distant from this one, and he took that by Gracefield and Bishop's road. Bishop had fixed his own road to take in his machinery.

Q.—Did he strengthen any bridges that you know of?

A.—I think he did, and he took it across the small bridge at Notre Dame des Laus and up to Cedar.

Q.—Was it anything extraordinary, in your experience to bring in a steam shovel into the country any distance away from the railway line?

A.—Nothing very difficult. This same man Carneil took
20 another one to the Estatia Lake embankment. He took that from Buckingham.

Q.—How many miles would that be?

A.—It is about thirty miles, more or less, on the same road, and he went up to Cedars.

Q.—Can you give any estimate of what the cost would have been to bring a steam shovel there in 1928 and 1929?

A.—I think the cost of the type of shovel they were using should not cost over \$250.00 or \$300.00.

Q.—Have you anything more to add to your observations
30 with regard to the visit of the 16th of November?

A.—No. That was all we saw at that time.

Q.—In describing the condition of the orange peel, I do not think you said very much about the nature of the excavation?

A.—The excavation was similar to what the pits have shown, still more sand than gravel.

Q.—He had only been operating a short time. Do you remember just at what stage they were at when you were there?

A.—They had been operating some two weeks, and they
40 had excavated down, according to my recollection, about eight feet, and over an area of 250 feet or so from the lower end. They started at the lower end, and were working up.

Q.—What was the next visit that you made up there after the 16th of November?

A.—The next one was with Mr. Ferguson, on March 3rd. I think it is the 3rd. The date has been given.

Q.—What particular matter interested you on March
3rd?

A.—Mr. Ferguson went up to look at the material in the by-pass?

THOMAS F. KENNY (for Defendant) Examination in chief.

Q.—You went with him?

A.—Yes.

Q.—On the same matter?

A.—I went for the same purpose.

10 Q.—Did you look at it at that time?

A.—Yes.

Q.—At what stage was it then?

A.—The top had all been taken off above the line of the dam, and they were getting at the rock under the dam, and it had been taken down to grade, a great deal of it ; I cannot just say how far up, but I think up to about the line of the dam.

Q.—What have you to say with regard to the kind of material that was being excavated then?

A.—It was just ordinary earth.

20 Q.—Did you walk through the cut?

A.—Yes. I examined the bottom and the sides. All that was open and it seemed to be the same material that he had been getting before, sand, gravel, boulders.

Q.—Do you know about what the velocity of the water was in the river at this place, before any obstruction was placed?

A.—Yes, approximately.

Q.—Was it the same the year round, or did it vary?

A.—The current at that point where the dam eventually went, would vary from one to four miles an hour.

30 Q.—Would four miles an hour be the maximum?

A.—Well, just about. It could, of course, go faster in high water than in low water.

Q.—And since you bring up the subject of high water. What was the period, normally of high water there in that particular year, in the spring of 1929?

A.—We ordinarily expect the water to be beginning to go up to the 1st of April, and usually the maximum water is about the 24th of May. Of course, it varied from year to year, but those are roughly the dates.

40 Q.—How long does it take to recede?

A.—It depends on the rains; usually by the 1st of July it is getting quite low, but in this particular year there must have been a peak in it, because July was not so very low. I have forgotten just how that curve went to.

Q.—Did you have occasion to visit the site of the works in or about the month of July while the cofferdam work was progressing?

A.—Yes.

THOMAS F. KENNY (for Defendant) Examination in chief.

Q.—There has been some reference in the evidence of a conversation that you had with Mr. Lindskog in July. Can you tell us what you recollect of that conversation?

A.—That was the 25th of July.

10 Q.—Who were present? Mr. Coyle has given evidence about it. Was anyone else there?

A.—Yes. I went up that time with Mr. Ferguson and Mr. O'Shea, and we met, or found Mr. Coyle at the site of the dam. I noticed a few logs in front of the cribs. The cribs at that time had been put in the place, what we have called, 1, 2 and 3. No. 3 was down stream from the other two, and there were a few logs in front of that crib, and there were logs running at that time, and they were passing the face of the cribs and going through the opening. They did not look very good to me, so I spoke to
20 Coyle, and asked him why it was in that shape, if Lindskog had never asked him to hold back the logs, when they were placing booms, or if he had not put on a glancing boom to keep the logs out of it. He stated no, that he had had no request of any kind from Lindskog. I am not certain whether he told me about that original glance boom that Lindskog put on, or not, but there was no boom that I saw.

Q.—Then, what took place between you and Mr. Lindskog?

A.—I spoke to Mr. Lindskog, and asked him why he did not let us know when he was putting in cribs, and ask us to hold
30 up logs, or, if he had no boom, we would lend him a boom, so he could keep the logs off the cribs already placed. I told him I would give Coyle specific instructions right there, but Mr. Lindskog turned his back and made some remark, but apparently he did not accept it.

Q.—As far as your personal knowledge goes, had there been any request made to your Company by Bishop, or any of his employees or otherwise, to hold back logs previous to that time while placing cribs, or doing any work in the cofferdam?

A.—No, none ever came to me.

40 Q.—There was no request to hold back logs ?

A.—No, I never had any.

Q.—Have you any personal knowledge of any subsequent request to hold back logs, or to prepare booms?

A.—Yes. It did not come through me, but I knew about it shortly after, about a week later, when he was putting in his closing crib : we got a request through Mr. McIntosh to hold up the logs for a few days ; we put on a boom and held the logs up.

THOMAS F. KENNY (for Defendant) Examination in chief.

Q.—Do you know how far above the dam they were held up ?

10 A.—Half a mile. They did not let us release the logs again for a matter of three weeks. Our sweep with our logs was in that year. They held us up ; they were complaining about another job, about the sweep being delayed.

Q.—When you were present, in charge of bringing the logs down the river, did the same system prevail of bringing them across Lac des Sables with booms ?

A.—In my time we have always used alligator system on the lake.

Q.—Bringing them across the lake with a boom, and then letting them loose ?

A.—Yes.

20 Q.—When you were handling these operations, what number of logs would you have in one of those booms you brought across the lake ?

A.—I think they would average 20,000 to 25,000.

Q.—In your opinion, how long would it take ordinarily for a boom like that to empty itself into the river, once the boom was open ?

A.—For the boom to empty itself clear ?

Q.—For the logs to get out ?

30 A.—It would really depend on the direction of the wind. If you brought in the boom with a little head wind, it might take a day to empty. If there was a little wind behind it, it might empty in four or five hours.

Q.—Would you look at the plan that has been filed in this case as exhibit D-10. I notice at the lower left hand corner, there is a sketch apparently of the Lièvre river and the Cedars Dam, as showing correctly the configuration of the river ?

40 A.—Well, that is taken off one of our drawings of the river itself, which we made for flooding purposes, and it correctly represent here on the right hand side ; the straight line across the river represents the site of the dam. It is marked “Cedars Dam”. Lac des Sables is marked up in the left hand top corner.

Q.—I notice the river has a considerable bend ?

A.—Yes, it is quite crooked.

Q.—What have you to say with regard to the manner in which the logs would come down that river after they were let loose at the bottom of Lac des Sables ?

A.—The logs always string out, and they cannot go in masses down there ; even if you could put them on any point, they would still string out. Logs always run that way.

THOMAS F. KENNY (for Defendant) Examination in chief.

Q.—Did you see the openings that were left in the river between the cribs, and the cofferdam, before the logs were diverted into the by-pass — the gaps that were left for the logs to go through ?

10 A.—Yes. On July 25th a final gap was there.

Q.—That is, between the center crib and the south bank, I understand ?

A.—Where crib No. 4 afterwards went. That was fairly well to the south side, and any logs that came down the north shore had to cross in front of the cribs already placed to get to it, and there was no guiding boom there.

Q.—If a guide boom had been placed before that opening, what would have happened to the logs coming down there ?

20 A.—There would be no trouble to keep them off the cribs. In fact they were not bad when I saw them on the 25th.

Q.—How would they go through ? What labour, if any, would be necessary to pass them through that place ?

A.—There would be no labour required to put them through that opening.

Q.—Mention has been made of certain logs belonging to your Company which were sawn at Mr. McCabe's mill ?

A.—Yes.

30 Q.—You have already given evidence, when called by the plaintiff in this connection, and you have produced and account for timber sawn. Was it you who made this verbal arrangement with regard to the purchase of this material ?

A.—Yes. May I see this exhibit. The first two items on this exhibit D-4, were sawn from logs which we had at McCabe's mill before the contract was made. The later ones are from logs that were afterwards drawn to McCabe's mill, or driven there. They are different from the first two.

Q.—I understood you to state already in your evidence that the first two, (as appears from that exhibit) were measured as logs on the Quebec Log Scale ?

40 A.—Yes.

Q.—I understand you have stated that the first two items on the exhibit were measured, after they were sawn, and that the remaining items for both were measured in the run ?

A.—Yes.

Q.—It is stated on the exhibit ?

A.—Yes.

Q.—Have you, yourself, had experience with the Quebec Log Scale ?

A.—Oh yes.

THOMAS F. KENNY (for Defendant) Examination in chief.

Q.—First, what have you to say with regard to the over-run in sawing up logs such as those that were included in the first two items mentioned on that exhibit?

A.—We, ourselves, have never experienced an over-run.
10 We have sold a great many logs to small mills. If they got an over-run, we did not hear of it, but we had numerous complaints of an under-run. In our own sawing we were not able to check every year, but when we did get a check, we would never account for any over-run.

Q.—The James MacLaren Company operate a saw mill?

A.—Yes.

Q.—And had, for a great many years?

A.—Yes.

Q.—Some mention has been made in the evidence in this
20 case of the scale of logs to Mr. Bishop at High Falls. I think he stated that the arrangement for the purchase of these logs at the two places, were made at the same time. Do you know anything about that?

A.—Ys, I know about it. No, I do not agree with him.

At Cedars, when they came to look over the job, they wanted to know what their lumber would cost them, so we told them about the logs at McCabe's mill, and that we had already made an arrangement with McCabe to saw these logs, and the
30 lumber would cost \$23.50, of which they would pay us \$20.00 and McCabe \$3.50.

We also had logs on Lac des Sables, which we held up, with the idea they would be used for cofferdam construction. They did not buy these. We had another lot of logs at High Falls, which we had held up there for a cofferdam, and they did not take those either. We afterwards hauled those out.

Q.—Do you know anything about the logs that were sawn
40 at High Falls in the summer of 1929?

A.—Yes.

Q.—What have you to say with regard to the size of those logs in respect of the ones sawn at McCabes, for the Cedars job?

A.—They are different. The Cedars logs were logs that were held up — the last of our logs at Cedars, and there would be a regular run of our logs, including spruce, from five inches up. The average would probably be at the outside forty feet. The average feet board measure of the log would be about forty; that would mean, an average log would be perhaps nine inches.

THOMAS F. KENNY (for Defendant) Cross-examination.

At High Falls it was different. We were holding them up continuously, and we cut out all the small logs, and only handled very large sizes. I think what we tried to get up there, was about nine inches.

10

Q.—At High Falls?

A.—Yes, and at that cutting out the very big spruce.

Q.—Have you had any experience with the method of electrical exploration that has been mentioned in this case?

A.—Yes.

Q.—Will you tell us what you know about it?

A.—That was the Slomberger Company. They were doing exploration work for us at Masson. We had a big development in prospect there, which included a tunnel about a mile long, and another dam about the size of Cedars, and a power house, so we got it to explore that ground by electrical methods, the site of the dump and the site of the tunnel. They went from that work up to the Cedars, as they said they could expect to get good results under water. At Masson, he had very good results. We afterwards checked it with the diamond drill, and it was surprisingly close.

Q.—Would you look at the letter which I now show you from the plaintiff, the Bank of Montreal, to your Company, dated August 30th, 1930, in connection with a claim for balance apparently under this contract, and state if that is the letter received by your company from the Plaintiff? There is also a statement annexed to that letter.

30

Mr. St. Laurent:—We object to the filing of this letter against the Plaintiff, because he cannot be bound by it, and moreover, because nothing concerning this is alleged in the pleading.

The Court maintains the objection.

40

By Mr. Ayles:—

Q.—Will you file as exhibit D-42 notarial copy of the partial discharge of this lien as registered, executed by the Plaintiff, William I. Bishop Limited?

A.—Yes.

Cross-examined by Mr. St. Laurent, K. C., of Counsel for Defendant:—

THOMAS F. KENNY (for Defendant) Cross-examination.

Q.—With respect to this later situation, are you the Mr. T. F. Kenny who wrote the letter on the 21st June, 1929, of which a copy has been filed as defendant's exhibit D-2?

A.—Yes, that is my letter.

10 Q.—I suppose you knew what the situation was at that time, when you wrote that?

A.—Yes.

Q.—You knew as much about it as you do now?

A.—Yes, I think I knew as much.

Q.—You had received the letter of the 20th June with annexed thereto Mr. Ferguson's letter of the 17th June, 1929, filed as Plaintiff's exhibit P-4. That is what is referred to in the answer, is it not?

A.—Yes, that is it.

20 Q.—Then, I presume you also got the letter of the 25th June, 1929, a copy of which has been filed as P-5. In view of the fact that it dealt with the same subject, I presume it was called to your attention?

A.—I think it is likely, I do not remember, but I think, likely.

Q.—I understood you to say, that even when there was only one gap open in the river, it would have been quite sufficient to pass the logs had there been glance booms?

A.—Yes.

30 Q.—You did not put any glance booms there?

A.—We did not think we were called upon to do it.

Q.—Your position was, that it was not up to you to do it, that it was up to the contractor?

A.—The contract covered it.

Q.—Your construction of the contract was, that whatever had to be done in that regard, had to be done by the contractor?

A.—Yes, I think that is the way we discussed it at the time the contract was revised.

40 Q.—I am not interested in what you discussed. I want it clear that that is the view upon which you acted at that time?

A.—Yes, apparently.

Q.—Did you know of this further correspondence from July 30th to August 23rd, which has been filed as exhibit P-1 to P-36 inclusively?

A.—I probably knew all about it at the time. I think I did, but some of it seems to be after the logs were passed.

Q.—After the logs did the thing we contend was damaging?

THOMAS F. KENNY (for Defendant) Cross-examination.

A.—I cannot agree with you there. I don't know what they did that was damaging to you.

Q.—You saw a crib that was downstream from the place, on the 25th July, did you not?

10 A.—Yes.

Q.—You saw some logs before it ?

A.—Yes, passing along the face of it.

Q.—Did you ever hear that the contractor claimed that the logs had brought that crib down?

A.—I heard them claim it. I did not hear it at that time though, not on the 25th of July, no.

Q.—You say that a few days after the 25th July, a request came to hold up logs. About a week after the 25th July, was it?

20 A.—Somewhere around the 1st of August. You have the date.

Q.—And that you held them up for how long?

A.—Oh, until about the 21st. Those were the last of our logs that we had held back until we could get them through the cofferdam.

Q.—You and Mr. Ferguson went together, on the 3rd of March, to see the material that the contractor was claiming to be hardpan?

A.—Yes.

Q.—And Mr. Ferguson went into the matter there?

30 A.—Yes. He went over the place with Mr. Bishop. I did not go with them. I went a little later after they went.

Q.—Did he communicate to you the copy of the letter of the 22nd March, 1929, which he addressed to Mr. Bishop in that connection, and of which your company filed a copy as exhibit D-1 ?

A.—I think he did. Yes, I should say so.

40 Q.—In view of the facts which you now state, and which, I presume, formed your conclusion at the time, you must have thought it rather surprising that he did not say to Mr. Bishop : “Well, here, this is all nonsense, there is no hardpan there.”?

A.—Perhaps he did. I don't know.

Q.—We do know, because we have the letter of the 22nd of March in which he pretends to make his disposal of that claim. You must have found it strange that he did not say, “Well, this is nonsense, there is not any hardpan there”?

A.—I do not think I can interpret Mr. Ferguson's letter.

Mr. Geoffrion:—I object. Mr. Kenny cannot decide what went through Mr. Ferguson's mind.

THOMAS F. KENNY (for Defendant) Cross-examination.

By Mr St. Laurent:—

Q.—When this exhibit D-1 came to the Maclaren Company did you remonstrate with Mr. Ferguson, about now telling Mr.
10 Bishop that this was not hard pan at all?

A.—We did not interfere with the consulting engineer. If he ruled against us we paid, and if he did not, we did not say anything.

Q.—You said that on the 16th November 1928, you went to the by-pass, because there had been some rumours that the excavation there was becoming hard?

Witness:—Is that the way I said it?

20 Counsel:—That is the way I noted it down.

A.—No. The Bishop Company said it is becoming hard. That is what I meant anyway.

Q.—Had you been informed of their contention to Mr. Ferguson in this regard, and of their letter in which they stated that on opening up the cut, they had found some very hard excavation, and that if it continued they would have to apply for a hardpan classification on it?

A.—I remember that, but I do not remember the date.

30 Q.—You do not remember whether it was before your visit, or after?

A.—No.

Q.—When you went there you saw that there were two broken teeth on the orange peel, and that two others were dull?

A.—Yes, quite dull.

Q.—That was on the 16th November?

A.—Thereabouts.

40 Q.—In order to get to the north side of the river one had to come up from Buckingham?

A.—Yes.

Q.—And the material that was brought from Gracefield would go to the south shore of the river?

A.—Yes.

Q.—And all the contractor had there, at Cedars, was this cable bridge?

A.—Yes.

Q.—How much would this steam shovel that you have in mind weigh?

THOMAS F. KENNY (for Defendant) Cross-examination.

A.—I don't happen to have the weight in mind of one of those shovels. I suppose it would weigh ten tons anyway.

Q.—Would it not be nearer sixteen tons?

A.—Oh, it might.

10 Q.—And would it surprise you to learn that the cribs we thought could be put upon those bridges between Buckingham and Cedars would have been about six tons?

A.—No, but the bridge could easily be made to take anything they wanted to take over them. It was simply a matter of shoring up.

Q.—Do you know how many bridges there are?

A.—Yes.

Q.—How many are there between Buckingham and Cedars?

20 A.—If he was taking his shovel up that way, he would have put it on the barge at Buckingham and taken it to High Falls, which was about half the way, and go right up without any trouble. From there, he would take it over the portage, up the road, or put it on another scow, if he had one at High Falls; if he kept on the road he would cross — I won't call it culverts, but Big Bridges and Sandy Creek, River de Sieur and Serpent Creek.

Q.—That would be from High Falls?

A.—Yes.

Q.—But, from Buckingham?

30 A.—If he took it up on the scow, as I suggested....

Q.—If he took it up by the highway?

A.—That is the way they do most of their trucking. There is Malcolm Creek, Priest Creek. Those are the only considerable bridges on the road.

Q.—On the other road, that you call the Bishop Road from Gracefield, is it not to your knowledge that Bishop had to reinforce the bridges during the winter of 1929 and 1930?

40 A.—It is not to my knowledge, but it would not surprise me.

Q.—He probably had to do it. You don't know.

A.—No. He probably did.

Q.—Why was it called the Bishop road? Don't you know that he did have to make some improvements to the road?

A.—Yes, he made some improvements. That is the first thing he did, was some work on that road.

Q.—Do you know when it was ready?

A.—No, but he had that hoist, clam sheel, and his building material there in November, when I was in — no, I did not

THOMAS F. KENNY (for Defendant) Cross-examination.

keep track. To me, there was nothing difficult for getting that in for any contractor.

Q.—There was nothing difficult about getting that in?

A.—No.

10 Q.—Don't you know that this hoist and clam shell had to be brought in from Buckingham, and that they were brought to the north shore, and that they had to be brought in and knocked down?

A.—No, I did not know it, but the shovel would do the same thing. Trucks were going up there all that fall.

Q.—How did you determine the velocity of the current at Cedars?

A.—By cross sectioning the area and the flows as near as I can determine.

20 Q.—When was that done?

A.—Quite recently.

Q.—Since the dam was put there?

A.—Yes.

Q.—With respect to this exhibit D-4, did you measure any of this stuff shown on exhibit D-4?

A.—No.

Q.—Did you see it measured?

A.—No, I don't think I saw any of that measured.

30 Q.—Well then, you are relying entirely upon reports as to how it was measured?

A.—Yes.

Q.—Or, are you relying upon what you see written here on the exhibit: "Measured as sawn lumber, measured as logs."

A.—No. We had a total voucher for it.

Q.—I am asking you how do you know anything about it if you did not do it yourself, or did not see it done?

A.—It came through our regular system, from our cullers, through our office check, and came finally to me.

40 Q.—Do you know who did it?

A.—The original culler.

Q.—Who did the measuring?

A.—No, I don't know.

Q.—Who knows anything about it personally?

A.—I don't know. The first two items came from McCabe. The rest of it came through our regular measurers.

Q.—How do you know it came through your regular measurers?

A.—By looking at the voucher. That is how I know.

THOMAS F. KENNY (for Defendant) Cross-examination.

Q.—Have you those vouchers here ?

A.—I do not think I have got them just in the original form.

10 Q.—Perhaps you need not bother looking for them. We have to prove our claim with respect of the sawn lumber. For the time being I can take it that you personally do not know how any of the lumber or logs sawn (on D-4) was measured? You got information, but personally you did not do the measuring and you do not know who did it?

A.—No. I can produce all the vouchers.

Q.—You will have an opportunity of going into that because we have not completed our case on that point. We will leave it at that for the time being.

20 I believe you stated that your recollection was that Major McEwen had been told that for the logs or lumber at McCabe's mill, he would be charged \$23.50 per thousand feet, of which \$3.50 would be paid to Mr. McCabe, and \$20.00 to you ?

A.—Yes, direct to McCabe ; the rest to us.

30 Q.—When the first letter dealing with the over-run arrived (the letter of March 8th 1929 filed as P-52) which I show you, it must have struck you that the Major was all wrong, that there was no room for any dispute, that what you had agreed with him was, \$23.50 for the lumber at McCabe's mill?

A.—That letter is not adressed to me.

Q.—That is to the Maclaren Company, is it not?

A.—Yes. I doubt if I saw it. Did I answer it?

Q.—I find here the answer, of the 13th of March, from the manager. Mr. R. M. Kenny. He would be apt to get the version of the man who made the deal, would he not, before replying to correspondence of that kind ?

40 A.—He might. I don't know. He might not. I think everyone knew about the price for lumber.

Q.—Then, do you not find it strange that instead of saying, "Well, here, you are talking about something that is quite outside the question. What we sold you at McCabe's mill was the lumber sawn at McCabe's mill"?

A.—Can I look at that?

Q.—It says, "We do not know of any mention being made with regard to how measurement will be obtained. We charged you for the actual lumber produced and accepted by you, made from the logs. It has not been our experience that logs were sawn

THOMAS F. KENNY (for Defendant) Cross-examination.

for an over-run of fifteen per cent". Why talk about over-run at all?

A.—That is quite consistent with what I said.

Q.—You believe it is ?

10 A.—Yes.

Q.—You think it is quite consistent with what you have said, to go on discussing whether or not there is an over-run?

A.—If the question of over-run was brought up, yes.

Q.—You filed as exhibit D-4, a partial discharge for an amount of \$92,761.46, dated the 21st October 1930. Is it your suggestion that that discharge refers to the items on which interest is claimed in paragraph 42 of the declaration, \$89,598.78?

A.—I don't think I made any suggestion in reference to it at all.

20

Mr. Aylen:—I did not ask the witness any question about that at all.

Mr. St. Laurent:—You had him file it.

By Mr. St. Laurent:—

30 Q.—You see that in this paragraph 42 of the declaration, there is \$89,000.00 odd claimed, and in paragraph 19 of the plea with respect to that paragraph 42, partial discharge of the privilege claim is referred to. Is this D-42 filed as a partial discharge to which paragraph 19 refers,

Mr. Geoffrion:—Is that not for the Court to decide.

Witness:—I presume it is.

By Mr. St. Laurent:—

40 Q.—Well, you can take it for granted that it is. I am not asking you to swear to it, but take it for granted that it is?

A.—Yes, I assume it is.

Q.—The date of that, as I have stated, is the 21st October 1930?

A.—Yes, the 21st October 1930.

Q.—As a matter of fact, did not your company pay these amounts, one of them on the 3rd of September 1930, and the other on the 17th September 1930?

THOMAS F. KENNY (for Defendant) Re-examination.
L. A. DUBREUIL (recalled for Defendant) Exam. in chief.

A.—I think we had an assurance from the Bank of Montreal that they would give us the discharge. I did not do it, but that is my recollection.

10 Q.—Do you remember when this electrical survey at Masson was being made?

A.—I think it was October 1929.

Q.—Was it going on when Mr. Ferguson was up there on the 1st or 2nd of October?

A.—No. It was after he was up to see the Bishop Company about the dam. We were just arranging at that time, and about the first thing they did, was to go up to High Falls, and they may have been a couple of days at Masson and interrupted to go to High Falls to do it, but it was after he had been up there.
20 I may have given you the wrong date.

Re-examined by Mr. Aylen, K.C., of counsel for Defendant.

Q.—Will you look at this letter dated 12th September 1930, and state if that is a letter received by our company from the Bank in reference to the retainer of \$2,082.68 referred to in your evidence?

A.—Yes, it is a letter of the Bank of Montreal to our
30 Company.

Q.—Will you file this letter as exhibit D-43?

A.—Yes.

And further deponent saith not.

40 DEPOSITION OF L. A. DUBREUIL (*recalled*)

A witness recalled on behalf of Defendant.

On this tenth day of March, in the year of Our Lord, one thousand nine hundred and thirty-three, personally came and reappeared Louis A. Dubreuil a witness already examined, now recalled on behalf of the Defendant, who being duly sworn doth depose and say as follows:

Examined by Mr. Geoffrion, K.C., of counsel for Defendant.

L. A. DUBREUIL (recalled for Defendant) Cross-exam.

Q.—Mr. Dubreuil, have you compared the typewritten endorsements on the exhibits given you this morning, D-14 to D-49, and if so, will you tell us if they agree with the endorsements you have put on your own copies of those photographs?

10 A.—Yes, they agree, except for exhibit D-15, the date of which should be the 25th of the seventh month, 1929, instead of the 27th of the seventh month 1929.

Q.—You have corrected that in pencil?

A.—Yes.

Cross-examined by Mr. St. Laurent, K.C., of counsel for Plaintiff.

20 Q.—I asked you with respect to exhibit D-27, if you would look and see if you had any photograph showing the interior of the cofferdam with the water at elevation 90. I understand you did look, and you have not got any?

A.—I have no photographs at which the water is shown at elevation 90.

Q.—But you have just told me that elevation 90 would cover about one quarter in height of this pier No. 3?

A.—Yes. Elevation 90 would be approximately the quarter of the height above the level of the water.

30 Q.—That corresponds pretty well with what you said this morning, that it would cover the first two courses?

A.—Yes sir.

Q.—The two first horizontal courses?

A.—The two first horizontal logs.

Q.—That appear at the base of that pier over the water?

A.—Yes.

And further deponent saith not.

THOMAS F. KENNY (recalled for Defendant)
Examination in chief & cross-examination.

DEPOSITION OF THOMAS F. KENNY (*recalled*)

A witness produced on behalf of Defendant.

10

On this eleventh day of March, in the year of Our Lord, one thousand nine hundred and thirty-three, personally came and appeared Thomas F. Kenny, a witness already examined, now recalled on behalf of Defendant, who being duly sworn, doth depose and say as follows:

Examined by Mr. Ayles, K. C., of Counsel for Defendant:—

20

Q.—Mr. Kenny, during your cross-examination yesterday, you were asked when you determined the velocity of the current at Cedars, and you stated that you had done so since the dam was put there. I would like to know if you have anything further to add to that?

A.—Yes. I used the data of the Stream Commission before the dam was put there, but I made calculations recently.

Q.—And you made calculations recently since the dam was put there?

A.—Yes.

30

Cross-examined by Mr. St. Laurent, K. C., of Counsel for Plaintiff.

Q.—Who secured this data?

A.—For the flow of the river, we used the Dominion Government Records for Poupart and the Provincial Records at Mont Laurier.

Q.—When did you secure this data? Is it since the dam was put there?

40

A.—No, we had that before.

Q.—When you made this determination of the velocity sometime since the dam was put there, what was it that you used?

A.—I used the records of the flow prepared by the Dominion Government at Poupart, and the record of the flow at Mont Laurier prepared by the Dominion and Provincial Governments, and I used the cross section of the river at that point.

Q.—The cross section prepared by whom?

T. F. KENNY (recalled for Defendant) Cross-examination.

A.—We had the original cross section prepared, which was later checked by our records.

Q.—Where did you, at that time, secure these records of flows or elevations, when you made your determination?

10 A.—We keep those records in our office at Buckingham. We usually get them every year.

Q.—Have you any distinct recollection, or is it just a general recollection that you, at one time or other, did look at these flows, and compare them with the section, and work out this velocity?

A.—No, I have quite a distinct recollection. In fact, I rechecked them within a day or two.

Q.—How long ago was it that you made the calculation that was reached within a day or two?

20 A.—I cannot say ; sometime within the last year.

Q.—And have you any recollection of doing it at that time?

A.—Yes, I have a distinct recollection.

Q.—Can you tell us what date you referred to in these records of the Dominion Government?

A.—For flow at that point?

Q.—Yes.

A.—For the lower ones we make a hydrograph which we keep up to date all the time.

30 Q.—Who is “we” ? Is it just editorially we, or is it yourself or somebody else who does it?

A.—Well, I do not do the actual graphing myself anymore, but I see that it is prepared. I looked at it quite frequently. We have studied the flow of this river for a good many years.

Q.—You have looked at this graph sometime then, within the last year?

A.—Yes.

40 Q.—And seeing Mr. Ferguson’s section, and the field notes that you had available, you concluded that it would be from one to four miles an hour?

A.—Well, depending on the water.

Q.—Have you got this calculation, or was it just an approximate calculation?

A.—No, I have not got the calculation. I have it in my memory.

Q.—What section was used at Cedars. Did you locate it with respect to the dam, for instance. Was it a section above or below?

T. F. KENNY (recalled for Defendant) Cross-examination.

A.—It was a section in the narrow part between the two cofferdams where the river was running, just about where the dam was.

Q.—Therefore, there was something, I suppose, over 150 feet between the two cofferdams?

A.—Yes, but more or less the same cross section.

Q.—If the cross section is taken, it is taken with respect to some fixed spot, is it not?

A.—Yes.

Q.—Can you tell me what that fixed spot was?

A.—Not without examining the drawing again.

Q.—We might look at B-2444. Was it in one special cross section, or was it just a general idea you had of the composite?

A.—As near as I remember, it was this cross section marked on this plan B-2444.

Q.—That would be a section about thirty or forty feet below the line of the dam?

A.—Yes, roughly .

Q.—Are you quite sure about that, or is it just the average from your knowledge of the sections of that whole portion there?

A.—If I remember it rightly there is not very much difference in the section from the point you have marked “K” here to the point that is marked “Q”. It is about an average section there.

Q.—What I wish to know is, if you made any exact mathematical calculation with respect to any one individual section, or if it was just an approximate calculation over the whole area there?

A.—I do not think I can tell you.

Q.—Did you say that you had got those calculations, that you still had them?

A.—The hydrograph of the river?

Q.—The calculations you made?

A.—No, I do not think so.

Q.—You do not think you have them?

A.—No.

Q.—As long as you have known that place, it has been called Cedar Rapids, has it not?

A.—Yes.

Q.—You have seen it a good many times?

A.—Yes, a good many times.

Q.—You did not consider, when you first saw it that it was a misnomer to call it Cedars Rapids?

THOMAS F. KENNY (recalled for Defendant) Re-examination.
J CHAGNON (recalled for Defendant) Examination in chief.

A.—The first time I saw it, I think I ran it in a canoe, a good many years ago, and we thought it was a rapid then.

10 Re-examined by Mr. Aylen, K.C., of counsel for Defendant.

Q.—Does the making of this calculation with regard to the river flow, depend on your personal knowledge of the river, or is it something you calculated from the Government Records from the cross section?

A.—To a little extent it depends on what I know, because two points of the measurements are quite a distance apart, and
20 I had to interpolate the same to get the average flow at the Cedars. There was no gauging station right at Cedars.

And further deponent saith not.

DEPOSITION OF JEAN CHAGNON (*recalled*)

30 A witness recalled on behalf of Defendant.

On this eleventh day of March, in the year of Our Lord, one thousand, nine hundred and thirty-three, personally came and appeared Jean Chagnon, of the City of Montreal, Civil Engineer, a witness already examined, now recalled on behalf of the Defendant, who being duly sworn, doth depose and say as follows:

40 Examined by Mr. Geoffrion, K. C., of Counsel for Defendant:—

Q.—You have checked on exhibit D-10 the levels which were given by Mr. McIntosh as yours, with the letters as shown on your cross sections which you filed in this case?

A.—Yes.

Q.—You tell me that the only mistake which appears is one of exactly ten points, that what is written as 78.9 should be 88.9?

A.—Yes. It is in the section 90 south and chainage of 10 west.

JEAN CHAGNON (recalled for Defendant) Cross-examination

Q.—Section 90 south, chainage 10 west?

A.—Yes.

Cross-examined by Mr. St. Laurent, K. C., of Counsel for
10 Plaintiff:—

Q.—Will you just put a red circle around?

A.—Yes.

Q.—There have already been red circles put around there,
so will you just put a double circle?

A.—Yes.

Q.—So that it will be different from the others?

A.—Yes (Witness indicates with a double red circle).

Q.—You have now put two red rings around the erroneous
20 figure showing one of the elevations on D-10?

A.—Yes.

Q.—But the only things you checked on D-10 were the ele-
vations?

A.—Yes.

There is another point in the section, 1 plus 80, south of
chainage of 40 east which is right on this plan. On my section
I put 90.7 instead of 89.8.

30 Q.—The 89.8 is the one that conforms with your field
notes?

A.—Yes.

By Mr. Geoffrion:—

Q.—And it is 89.8 on D-10?

A.—Yes.

40 By Mr. St. Laurent:—

Q.—When Mr. Lefebvre spoke of his practice of making
only two classes of excavation, Mr. Geoffrion asked him for an
example, and he said that that class was very clear in his Kenog-
amy specification and we have that here ; it reads as follows:—

“Excavation 20 (20 being the number of the class),
two classes of excavation would be recognized, namely,
common excavation and rock excavation, boulders, measur-

JEAN CHAGNON (recalled for Defendant) Cross-examination

10 ing one cubic yard or more, would be classed as rock excavation. All others would be classed as common excavation, and the schedule of quantities which is printed with the specification, contains for excavation the following schedule of quantities : Chicoutimi Dam 3 excavation common ,cubic yards 1300 ; rock, cubic yards 4,700, and a similar item for excavation with respect to each of the other units of the top''.

That is correct ?

A.—Yes.

20 And further deponent saith not.

30

40

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)
Examination in chief.

Plaintiff's Evidence in Rebuttal

10

DEPOSITION OF JOHN C. REIFFENSTEIN

A witness produced on behalf of Plaintiff in rebuttal.

On this eleventh day of March, in the year of Our Lord, one thousand nine hundred and thirty-three, personally came and appeared John C. Reiffenstein, of the City of Montreal, Civil Engineer, a witness produced on behalf of Plaintiff in rebuttal, who being duly sworn doth depose and say as follows:

20

Examined by Mr. St. Laurent, K.C., of counsel for Plaintiff.

Q.—Mr. Reiffenstein, you have already been heard in this case?

A.—Yes.

Q.—And you were the resident engineer for the contractor on the Cedars job right through practically the whole of the work?

30

A.—Yes.

Q.—And I understand that you stated you arrived on the job about the 4th or 5th of November?

A.—Yes.

Q.—Can you tell us when the blasting operations commenced in the by-pass excavation?

A.—It was sometime after the 15th November, between the 15th and the 30th November.

40

Q.—Sometime between the 15th and the 30th of November?

A.—Yes.

Q.—Have you been able to determine from the notes, or the invoices, where the dynamite was secured from for that blasting?

A.—We got a certain amount of dynamite from McCabe at Notre Dame des Laus, and also got dynamite from High Falls.

Q.—Have you referred back to the invoices to see what you did get during that fortnight from the 15th to the 30th November?

A.—I saw an invoice of Mr. McCabe.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)
Examination in chief.

Q.—You went back to those invoices

A.—Yes.

Q.—In order to refresh your memory...

10

Mr. Geoffrion:—I object. If the witness is testifying from a document in order to refresh his memory, I want that document produced.

Mr. St. Laurent:—We will produce it.

By Mr. St. Laurent:—

Q.—Is it only one, or more than one delivery that you got
20 from McCabe during that fortnight?

A.—We had several deliveries from him.

Q.—What was the largest quantity at any one time that
you got from McCabe during that fortnight?

A.—One case.

Q.—How much would that be?

A.—Fifty pounds.

Q.—And when was that?

A.—That was the 30th November.

Q.—In addition to what you got from McCabe during that
30 period, where else did you get some?

A.—We had some High Falls, from our other job.

Q.—You remember that quite distinctly?

A.—Yes, I remember getting that.

Q.—You will have the invoices here on Tuesday morning?

A.—Yes.

By Mr. Geoffrion:—

Q.—You have none for High Falls?
40

A.—We had no invoices for them.

By Mr. St. Laurent:—

Q.—I understand that Mr. McIntosh has stated when Professor Mailhiot examined, what we have called hardpan in the by-pass, he went to one particular spot where there were about fifty yards of hard material. Were you there when Professor Mailhiot made his inspection?

A.—Yes.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)
Examination in chief.

Q.—What have you to say with regard to his statement about going to one particular spot only?

10 A.—My recollection is, he examined the whole face of the excavation.

Mr. Geoffrion:—I object to this evidence for two reasons. In the first place, whatever examination Mr. Mailhiot may have made, was a matter for examination in chief. If my learned friend is not satisfied with Mr. Mailhiot's memory, as to what he examined, it would have been quite proper for him to bring him to say he was mistaken.

20 Mr. St. Laurent:—Mr. Mailhiot testified in a general way. In defence, my learned friend made Mr. McIntosh say that there was an examination made only at one point where there were about fifty yards.

Mr. Geoffrion:—His answer is contained on page 143 of my cross examination, and if my learned friends were not satisfied with his answer, then was the time to make their evidence, but I submit that Mr. Mailhiot on cross-examination at page 143 stated that he looked only at one point, and he closed his evidence on that.

His Lordship:—As far as I remember the question to Mr. Mailhiot was whether that was hardpan or not, and if he saw it at one point and whether it was hardpan.

30 Mr. St. Laurent:—I will not insist on an answer to the question in that form. I will withdraw my question.

By Mr. St. Laurent:—

Q.—You said you were with Professor Mailhiot?

A.—Yes.

Q.—And you saw what he examined, whatever it was?

A.—Yes.

40 Q.—How does, what you put on your cross sections as hardpan, compare with what was examined by Professor Mailhiot, when he went there that day?

Mr. Geoffrion:—I object to this as not being rebuttal.

The Court reserves the objection.

A.—It appeared to be the same material.

By Mr. St. Laurent:—

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)
Examination in chief.

Q.—There has been some reference in Defendant's evidence about a rock spoil bank above the site of the upper cofferdam. Have you sketched on a Quebec Streams Commission plan the spot, of the locality, occupied by that rock spoil bank?

10 A.—Yes.

Q.—Will you file that plan as exhibit P-110, and explain first of all, what this is? I understand it is the Quebec Stream Commissions plan of your general lay-out which you found to be a convenient plan on which to sketch these notes?

A.—Yes.

Q.—What the blue print shows as printed, is not your work?

A.—No.

20 Q.—Your work is the work that has been put on in coloured pencil?

A.—Yes.

Q.—And the legend shows yellow lines, "Thus" with an arrow following the word "Thus" into the original direction of currents?

A.—Yes.

Q.—You have put certain yellow lines with an arrow head at the end of them to indicate what was the direction of the current prior to the placing of the cofferdam, is that correct?

A.—Yes.

30 Q.—And you show that down through the middle of the stream the current flowed from west to east, and that on the north shore opposite the peninsular, which has been called an island here, it then swirled in the eddy, and flowed back along the north shore?

A.—Yes.

Q.—And that in a lessor degree the same thing happened over towards the south shore?

A.—Yes.

40 Q.—What is it that you have coloured in, in red, on this plan?

A.—That is the tip of that rock spoil bank.

Q.—I see that there is an irregular dotted red line, which runs outside the solid red colouring?

A.—Yes.

Q.—What is that?

A.—That is the approximate toe of the slope of that spoil bank.

Q.—The portion then, between the solid red, or dotted red line, would be the slope?

A.—Yes.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)
Examination in chief.

- Q.—What is it then you have coloured in purple?
A.—That is the earth fill.
Q.—Is it the whole of the earth fill, or the part of the
earth fill that was above water?
10 A.—The part that was above water.
Q.—Then, the purple line further out is marked “Toe of
earth fill”?
A.—Yes.
Q.—This solid purple was intended to go right across the
stream?
A.—Yes.
Q.—And the two yellow spots there are just the arrow
heads of the yellow lines showing the direction of the current?
A.—Yes.
20 Q.—Can you say what space there was between the rock
pile and the end of the sheathing?
A.—About twenty-five feet.
Q.—What was that before the work was done ? What was
the nature of this twenty-five feet?
A.—Bare rock.
Q.—And what was put up against that bare rock?
A.—Earth fill.
Q.—Then, do I understand you to say there were twenty-
five feet of earth fill against the bare rock between the rock spoil
30 bank and the sheeting?
A.—Yes.
Q.—Although you had nothing to do with the preparation
of the printed matter on this plan, does this show the lay-out as
you remember it?
A.—Yes.
Q.—I note from this, that practically the whole of your
camp and operating plant was on the south shore of the river?
A.—Yes.
40 Q.—That is, the shore which was accessible from Grace-
field?
A.—Yes.
Q.—I see that there are in ordinary lead pencil marks,
certain lines with stations indicated on them?
A.—Yes.
Q.—Have you prepared a series of longitudinal sec-
tions running through these stations, showing the elevation of
the rock, and extending these cross sections that Mr. Chagnon
filed from the dam up, through the cofferdam?
A.—Yes.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)
Examination in chief.

Q.—Will you show these cross sections? I understand there are five of them?

10 Mr. Geoffrion:—Does that plan purport to give his observations as to where the river bottom was, to show the depth, over-burden, etc. I submit that is part of your main case. I would like my friend to suggest what he meant that is affirmative in our defence by that.

Mr. St. Laurent:—What I meant affirmatively by your defence, is the evidence of your witness Stratton. Stratton stated that the bed of the river was actually as he showed it on B-2444. This really, is not new evidence at all. It is merely a composition of the elements which are already of record.

20 We have the evidence of the driving of the sheet piles and we know to what depth they went, and we have the other elevations which are shown here. This is just illustrating it.

Mr. Geoffrion:—I submit the burden is on my learned friends to prove that Stratton was wrong. They say, “You gave us a misleading plan” and it was not for us to prove that it was right. It was for them to show the proof was wrong, if it is wrong. I suggest my learned friends are wrong. I submit therefore, that the evidence to prove the plan was wrong, should have been made in chief. If my learned friends suggest that it is only summarizing the evidence, I object to it being summarized by this witness.
30 The evidence will be summarized for the Court by experts. I submit that my friend has no right under the guise of simply covering evidence made in chief to try to make it more effective in rebuttal.

Mr. St. Laurent:—I am not going to attempt to prove any new fact in connection with this. The facts which this purports to illustrate are facts which are already of record.

Mr. Geoffrion:—Then, if that is so, do not put it in.

40 Mr. St. Laurent:—What it shows is graphically done, and we contend we have the authority from which it is taken already of record.

Mr. Geoffrion:—Then, let us have the authority. Surely, we are not to be bound by this gentleman’s interpretation of the evidence and I object to any evidence of the purpose of making it more tangible or stronger. I submit the evidence in support of the Stratton plan was deceptive, and on that basis the burden is on the plaintiff.

If my learned friend wants to present in a different form, evidence that is already in, I must have the opportunity of testing it and have it checked and have it rebutted. I am not going to

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)
Examination in chief.

take Mr. Reiffenstein's word. I simply point out that that can only tend to prove one thing, and that is, the deceptive character of the Stratton plan, and if it does not prove that it is useless
10 and if it does prove it, it is illegal.

Mr. St. Laurent:—I do not think my learned friend can say it is useless, I think it is very convenient.

Mr. Geoffrion:—It either makes your evidence more effective, or it is useless.

Mr. St. Laurent:—If we have a set of figures in the record, the addition of those figures to save the trouble of doing it ourselves, is certainly useful.

Mr. Geoffrion:—If it is useful, the evidence should have been made in chief, if it is to support an allegation in chief.

20 His Lordship:—We have got it already. It might help a higher Court. I do not think it will help me.

Mr. Geoffrion:—Your Lordship could appoint the expert, That is quite different. If you chose a man it would be at the suggestion of both parties.

His Lordship:—I will reserve your objection, Mr. Geoffrion.

By Mr. St. Laurent:—

30 Q.—Will you look at the exhibit D-39, which was filed by Mr. Chagnon, the portion which indicates the lower sheet piling and say if your sheet piling sheeted that form at the bottom, or if it was a straight form or rectangular at the bottom?

A.—It was rectangular.

Q.—Is the same true for the upper sheet piling shown on D-39 ?

A.—Yes.

40 Q.—Have you plotted your notes of the depth to which those lower sheets were inserted?

A.—Yes.

Mr. Geoffrion:—Which one are you speaking of?

Mr. St. Laurent:—Downstream.

By Mr. St. Laurent:—

Q.—Will you file that as exhibit P-111?

A.—Yes.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)
Examination in chief.

10 Mr. Geoffrion:—There was no issue on the lower sheet piling at all. It happened to be on the plan I filed. It seems to me, it is not much use in this case, because there is no issue as to the lower sheet piling that I know of, and I fail to see what the condition or character, or depth of the lower sheet piling has to do with this case. I had to identify it without asking anything about it. It happened to be on the plan I was filing.

Mr. St. Laurent:—My learned friend questioned the witness about it, and the witness said he got the information from Mr. Reiffenstein.

20 The Court reserves the objection.

By Mr. St. Laurent:—

Q.—Comparing this with the exhibit D-39 from sheet No. 12 to sheet No. 103, I understand that it checks quite accurately with the details shown on D-39?

A.—Yes, it is quite close?

30 Q.—But for the sheets numbered on P-11, 1 to 11 inclusively, although the upper line checks with Mr. Chagnon's upper line, Mr. Chagnon lower line shows them cut off, while yours shows them extending to the depth to which they really went. For the first of the steel sheets proceeding from the left, Mr. Chagnon's plan shows in the same manner as your does, the top of each sheet ?

A.—Yes.

Q.—And you further show the whole length of the pile down to the depth to which it was driven ?

A.—Yes.

40 Q.—While Mr. Chagnon's plan for the first ten or eleven sheets shows the lower end cut off without illustrating the depth to which they went ?

A.—Apparently, yes.

Q.—The depth to which these sheets were driven is estimated, I assume, from the elevation at which the top stopped, and the length of the pile ?

A.—Yes.

Q.—When you were cross-examined by Mr. Geoffrion, you were asked if you had made any soundings in that portion of the river bed, and you said that you had, and that you had

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)
Examination in chief.

your notes, but that you had not plotted them. Have you since plotted those notes?

A.—Yes.

10

By Mr. Geoffrion:—

Q.—Are there ten feet there?

A.—Yes.

By Mr. St. Laurent:—

Q.—Will you file them as P-112?

A.—Yes.

20

Q.—Does that correctly represent the plotting of these soundings you referred to when you answered Mr. Geoffrion's questions?

A.—Yes.

Q.—And you have your notes from with these plottings were made?

A.—Yes.

Q.—When you were making those soundings, how did you, in fact, proceed with your rod?

30

Mr. Geoffrion:—I object to the question as not arising in rebuttal.

The Court reserves the objection.

A.—I took those soundings, as I said before, on four lines across the river, and recorded them at ten feet intervals, and in between, in order to determine if there were any large boulders or irregularities. There being no one to cross the river in a boat, I dragged the rod across the bottom, and explored.

40

By Mr. St. Laurent:—

Q.—That was in March?

A.—That was in March, March 11th, 1929.

Q.—What was the elevation of the water at that time? Was it high water or low water period?

A.—It was just about the lowest water that we had that year.

Q.—Have you got the depth of the water that was going

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)
Examination in chief.

over the sills in the by-pass when the jam of logs occurred, on or about the 22nd of August 1929?

A.—That should show on that chart of water gauge readings, which I filed before.

10 Q.—Would that be shown on chart P-95 or on chart P-98?

A.—On chart P-95.

Q.—P-95 for the moment cannot be turned up. We will try and find it before we close the case so that you can read the chart for us as of that date. What is the name of the foreman to whom you gave your sketches of your soundings of the river bed?

A.—That was Mr. L'Hereux.

20 Q.—It has been stated in the defendant's evidence that there was some rock put down in the river after the wood sheet piling was put in. Can you give us any enlightenment on that? Was there any rock put down in front of the wood sheet piling?

A.—Yes, we put some rock there.

Q.—Where was that put, and why was it put there?

A.—It was put there to anchor the brush mats and hay, which we used.

Q.—What quantity was put there to so anchor the brush and hay?

A.—Oh, just a very small quantity.

30 Q.—Do you remember anything about the ten or twelve big rocks that were put in, just before placing the closing crib?

A.—I do not remember how many, but I remember we put some rocks in that closure to help us hold the crib when we put it in, because the water was very swift there.

Q.—Where were they put with respect to the place the crib was to occupy?

A.—They were put downstream?

Q.—Under whose instructions was that done?

A.—Under Mr. Lindskog's instructions.

40 Q.—After the cofferdam was in order, was there any possibility of working under the cribs?

A.—Not that I could see.

Q.—Were you down in that cofferdam space?

A.—Yes, I was down there many times.

Q.—There has been something said in the defendant's evidence about there having been one tremendous blast set off on the island, and only one, though in a great many holes. Can you tell us how long the blasting was conducted on that island?

A.—I do not remember off hand, but it was over a period of about two or three months.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)
Examination in chief.

Q.—How many blasts were set off on that island?

A.—When they were working there, they usually blasted probably two or three times in twenty-four hours.

10 Q.—And that went on for two or three months?

A.—Well, over a period of two or three months. They were not at it continuously.

Q.—Can you say roughly about how many blasts were set of there as a minimum?

A.—It would be at least fifty.

Q.—It would be at least fifty, instead of one.

A.—Yes.

20 Q.—How much rock was shaken up, or shattered by that blast which was set off in a great many holes just at the time these suspension bridge was damaged?

A.—I should think about 200 cubic yards.

Q.—And about how much was blasted off that island altogether?

A.—About 3,000.

Q.—It was stated both by Mr. Skerl and Mr. McIntosh that at the time the north abuttment crib was broken, the logs were broken. Have you a photograph which was taken of the damage to the bridge and of the crib?

A.—Yes.

30 Q.—Will you file it as exhibit P-113.

A.—Yes.

Q.—I understand this is a photograph taken from the south shore, looking towards the north and at the extreme left of the photograph is shown the crib which constituted the northern abuttment of the cofferdam?

A.—Yes.

40 Q.—And of course, the middle photograph is showing the cables that were holding the bridge, and in a twisted shape the pathway of the bridge?

A.—Yes.

Q.—And that that addition above the crib which constituted the north shore abuttment is the broken up surface. Does that indicate the place where the blasting had been done?

A.—Yes.

Q.—Is it the surface of that portion of the island that is shown at the extreme left that had been blasted off?

A.—Yes.

Q.—Who took this photograph Exhibit P-113?

A.—I did.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)
Examination in chief.

Q.—When did you take it?

A.—I took it the day the bridge was damaged.

Q.—The very day it happened?

10 A.—Yes. I am not sure of the exact date, but it is in the list that was filed.

Q.—The photograph is numbered 9, and by referring to Exhibit P-93 can you tell us on what date it was taken?

A.—March 23rd, 1929.

Q.—When you arrived on the job, in early November, 1928, what was the condition of the orange-peel?

A.—It was in good condition.

Q.—Have you had any experience with the handling of logs in large booms across lakes, and then the opening up those booms?

20 A.—I never had charge of any operation like that, but I have seen it performed many times.

Q.—Where did you see it performed ?

A.—At Flamand River, Lake Flamand.

Q.—In those employ were you then?

A.—The Wayagamack Pulp & Paper Company.

Q.—How long were you with them?

A.—About three years.

30 Q.—How do the logs move out of those booms when they are opened?

Mr. Geoffrion:—I object to this as being a matter of the Plaintiffs' case in chief. The way we handled the logs has been established, and if the Plaintiffs' claim is that we did not handle them properly, it is a matter of his case in chief.

Mr. St. Laurent:—I am attempting to rebut a statement made by, I think, two of the witnesses to the effect that when those booms are opened the logs do not come out in bunches, but that they string out.

40 Mr. Geoffrion:—I did not hear any statement either one way or the other on that.

Mr. St. Laurent:—Both Mr. Coyle and Mr. Kenny made the statement, or it may have been Mr. Jamer and Mr. Kenny. In any event, two witnesses said when the boom is opened it takes from five to six hours to a day for the logs do move out of it, and that they string out. I think Mr. Kenny said they do not move out in bunches.

Mr. Geoffrion:—That may be an answer to my first objection, but I have a further objection to the effect that Mr. Reiffenstein has told us that while he may have seen logs come out

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)

Cross-examination.

yet he was never in charge of them. We all have seen logs move, but we are not all experts. Mr. Reiffenstein has not been qualified as an expert.

10 His Lordship:—I think he may tell us what he has seen.

Witness:—Very often they will stick quite closely together, and move out in a mass, according to the width or opening in the river.

By Mr. Geoffrion:—

Q.—And, I suppose the wind might affect them?

A.—Yes.

Q.—And, the current?

20 A.—Yes.

Q.—And, how close the logs are to the end of the lake?

A.—Yes.

Q.—A thousand different factors?

Mr. Forsyth:—My friend says “a thousand different factors”, but he has only mentioned three.

Mr. St. Laurent:—With the exception of a few questions in regard to the height of water over the sills when the jam occurred in the by-pass (which will be covered by Exhibit P-95, when we locate it) I have no further questions.

Cross-examined by Mr. Geoffrion, K. C., of Counsel for Defendant:—

Q.—Dealing first with the by-pass : were you in charge of the blasting there?

A.—No.

40 Q.—What were your duties at the time they were doing that blasting?

A.—At that time I had no special duties, other than I ordinarily was there on the job, keeping track of quantities, and so on.

Q.—Your station was on the other side of the river?

A.—Not all the time.

Q.—But, your station was there? Your residence, and the offices, were there?

A.—No ; my office was not there in November.

Q.—Where was it?

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)
Cross-examination.

A.—Up to the end of November we used a room in the hotel at the village for an office.

Q.—Your quantities were taken at some office?

A.—The work was done in the field, on the job.

10 Q.—I take it that in the course of your duties you would go around everywhere, including the by-pass?

A.—Yes.

Q.—You said they began dynamiting sometime between the 15th and the 30th of November, and you said there are vouchers?

A.—Yes.

Mr. Geoffrion:—I cannot very well close that branch until I get the vouchers.

20 By Mr. Geoffrion, continuing:—

Q.—Will you get the McCabe invoices for the dynamite?

A.—Yes.

Q.—Did you keep track of what the dynamiting was for ?

A.—No, I did not take any particular note of it.

Q.—Was there some dynamiting also for the construction of the Gracefield Road?

A.—Yes.

30 Q.—And, was there some dynamiting for other purposes also ?

A.—Yes, there was a little.

Q.—For what ?

A.—On the construction of the suspension bridge they used a little.

Q.—You told us the plan Exhibit P-110 showed in red the top of the rock pile ?

A.—Approximately, yes.

40 Q.—The toe of the rock pile is indicated by a red line ?

A.—Yes.

Q.—The top of the earth fill is in purple ?

A.—Yes.

Q.—And, the toe of the earth fill is the outside line ?

A.—Yes.

Q.—Was all this taken from surveys ?

A.—Partly.

Q.—Have you your notes of those surveys ?

A.—I do not know whether I can lay my hands on them now.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)

Cross-examination.

Q.—From what did you make the plan ? From memory ?

A.—No. To make the bottom of the earth toe fill I used Exhibit P-37.

10 Q.—Are you responsible for Exhibit P-37 ?

A.—Yes.

Q.—Have you surveys for it ?

A.—I do not know that I can find them. I made notes at the time I made that plan.

Q.—When did you make this plan Exhibit P-37 ?

A.—First in September, 1929.

Q.—Did you have notes then ?

A.—To start out I used Mr. Chagnon's plan.

20 Q.—Did you finish it also by Mr. Chagnon's plan ?

A.—No. From time to time I made notes in the field.

Q.—From soundings ?

A.—Yes.

Q.—How did you take those soundings ?

A.—With a lead.

Q.—Not with a rod ?

A.—With a lead.

Q.—There was not sufficient current to interfere with your doing that ?

30 A.—No: there was very little current there then.

Q.—What date was that ?

A.—I do not remember the date I took the soundings. It would be in October.

Q.—Of what year ?

A.—1929.

Q.—And, the lead was sufficient ?

A.—Yes.

Q.—And, if you took any notes of those soundings, you have lost them ?

40 A.—They may be in my note-books, but I have not been able to find them.

Q.—And, you do not remember if there were any notes or not ?

A.—Oh yes, there were some.

Q.—Then, surely, they must be in your notebook, if there were any ?

A.—I did not always use those notebooks for things like that. When I was making that plan I was within a few yards of the job, and I went down and took those notes of soundings, and put them on a paper.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)

Cross-examination.

Q.—So, some notes of your operations you put in a book, and other notes of your operations you put on loose sheets of paper?

A.—Sometimes, yes.

10 Q.—Do you consider that a very desirable method for engineers to proceed?

A.—It depends on what you want the notes for.

Q.—I suppose you want them for accuracy?

A.—They are quite accurate.

Q.—But, suppose you want them for accuracy, do you think it is a good practice to take your notes on a sheet of paper, when you have a notebook available?

A.—That would not affect the accuracy of the notes.

20 Q.—But, it affects the possibility of checking them, does it not?

A.—Yes.

Q.—How long after you took your soundings did you plot your plan?

A.—Probably 15 or 20 minutes.

Q.—That is the plan Exhibit P-37?

A.—Yes.

Q.—Would it be the same date as you took the soundings?

A.—The date I plotted the line of the toe fill on it.

Q.—On this plan Exhibit P-37?

30 A.—On the original of that. This is made from a tracing, of course.

Q.—I thought you told us part of it had been made from Mr. Chagnon's notes, and parts from your own soundings? Which part was made from Mr. Chagnon's notes, and which part was made from your own soundings? I am speaking now of the toe fill.

40 Mr. St. Laurent:—The witness did not say that with respect to the toe fill; he said it with respect to the plan.

Witness:—I made it from my own notes.

Q.—And, you cannot find those notes in your book?

A.—No.

Q.—You are not sure they are not there?

A.—No, I am not. I have looked for them, but I cannot find them.

Q.—And, after having looked for them and being unable to find them, you are not sure if they are there or not?

A.—No.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)

Cross-examination.

Q.—You said it was your practice frequently to enter your notes and observations in your book, and that at other times you made the entries on loose sheets of paper?

10 A.—Yes.

Q.—What is the reason for the difference between those two practices?

Q.—Any notes I wanted to make a record of, I used to keep in the book. At the time I made that plan I wanted to have notes of my observations, and I made the entries on a piece of paper.

Q.—You did not think it was sufficiently important to put it in your book?

A.—No.

20 Q.—Then, if it was not so important why take any notes at all?

A.—Because I was asked to take the observations.

Q.—If they were of so little importance did you bother about taking them accurately?

A.—Yes, I took it accurately.

Q.—You took them accurately, but you did not think it was worth while recording them?

A.—I recorded them on a plan, instead of notes.

30 Q.—You do not believe in the practice that engineers should keep their notes to check their plans?

A.—If they are going to make their plans at a very much later date than the time they take their notes.

Q.—But, if they make the plan immediately, it is not necessary for them to keep their notes?

A.—Quite so. Many times plans are made without any notes at all.

Q.—What measurements did you take of the upper level of the toe fill — the purple line?

A.—I got that at the same time I was taking the others.

40 Q.—Did you take notes of that also?

A.—Yes.

Q.—Was that by survey, or mere guessing?

A.—It was measured with a tape.

Q.—And, the same story applies to those notes as to the other notes?

A.—Yes.

Q.—When did you trace on any plan — since you had no notes left — the top of the toe fill : the purple region ? When did you put that on any plan?

A.—It is on the plan Exhibit P-37.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)

Cross-examination.

Q.—Was that line entered on the plan at the same time as the line of the bottom of the toe fill?

A.—Yes.

Q.—Are the same sort of information?

10 A.—Yes.

Q.—Let us take the top of the stone pile : you traced that since you were heard as a witness for the Plaintiff in chief?

A.—Yes.

Q.—Where is your data for that?

A.—It is approximately, mostly.

Q.—You did not make any survey, then?

A.—I happened to have a point which was taken out on the toe fill.

Q.—What is that point to which you refer?

20 A.—I had a point to set the instrument on there.

Q.—Where is that point ? It is not marked on the plan Exhibit P-110 ?

A.—Yes, it is marked very faintly in pencil. I did not record it on there. I just used it to check.

Q.—I do not doubt your word when you say it is marked, but I have your word for it and that is all I have.

A.—There is a pencil mark there. It is very faint.

Q.—At all events, on what was that point marked ? On toe fill?

30 A.—On the earth.

Q.—After the earth was there?

A.—Yes.

Q.—You located an instrument?

A.—Yes.

Q.—Is that recorded on some plan?

A.—I have it in my note book.

Q.—The exact location?

A.—Yes.

40 Q.—Beyond that you have nothing whatever except your memory to justify that red sketch you give us of the top of the rock pile?

A.—I had some notes of a survey which I made of the by-pass also.

Q.—Where are those notes?

A.—In my note book.

Q.—What do they give in respect to the stone pile?

A.—They give the water level.

Q.—Does that show you where the stone was?

A.—They give an outline of the pile at the water level.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)

Cross-examination.

Q.—They give an outline of the pile on the by-pass side?

A.—Yes.

Q.—They do not give an outline of the level on the river side?

10 A.—No.

Q.—Have you anything whatever but your memory to enable you to trace (since you gave your testimony for the Plaintiffs in chief) the location of that stone pile?

A.—I have the photographs.

Q.—I mean, apart from the photographs, and apart from your memory?

A.—That is all.

Q.—You took no observations at the time?

A.—No.

20 Q.—And, you had no reason to take any either?

A.—No.

Q.—Was there any reason to attach the slightest importance to the matter at the time?

A.—No, not that I remember.

Q.—What about the bottom of the stone pile, in the river? Did you ever take any measurements, or surveys, or anything, of that?

A.—No.

30 Q.—And that was under water?

A.—Yes.

Q.—And the more the water rose by the crib the more underwater it got?

A.—Yes.

Q.—You took no observations whatever?

A.—No.

Q.—So, that location is pure guess?

A.—That rock pile would stand at about a one to one slope, and probably less.

40 Q.—And, possibly more?

A.—No, not more: not a rock pile.

Q.—Have you ever seen rock piles standing with a smaller slope?

A.—No.

Q.—That could not happen? It would fall if it was at a smaller slope?

A.—It usually assumes less than a one to one slope.

Q.—But, when stone is piled up, or thrown up, does it not take a smaller slope?

A.—No: it usually takes a more acute slope.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)

Cross-examination.

Q.—In any event, we have the slope which you say is about one to one?

A.—Approximately.

10 Q.—Did you figure it on a one to one slope?

A.—Approximately, yes.

Q.—It seems rather curious that the distance from the toe of the slope to the top (where it may be bad for your case) is much closer than at the other places? Apparently in one direction, where it does not hurt your case, the slope is one to one, and it is apparently different elsewhere?

A.—No, sir.

Q.—Look at your line.

A.—Yes.

20 Q.—You say the line is completely the same distance from the top?

A.—No. The depth of the pile varies there.

Q.—How do you mean? The height of the pile?

A.—The height of the pile above the natural ground. This ground is rising, and naturally the slope has to encroach into it.

Q.—I am not quite sure of that. There is no evidence of it there.

A.—If you have a pile one foot high, and it takes a one to one slope...

30 Q.—(interrupting) I quite appreciate you will want more space.

A.—This ground is rising underneath the pile, therefore the pile is decreasing in height.

Q.—You have not the level of the bottom of the river there. To justify the line of the toe of your slope on that basis, you must give us the difference in level of the river; and, you have not got that. Did you guess at that also?

A.—That can be obtained from the topographical plan.

40 Q.—I do not ask you where it can be obtained. I ask you whether you got it before making your plan?

A.—I got it from the plan B-2444.

Q.—You took those levels from the plan B-2444, did you?

A.—Yes.

Q.—The plan B-2444 does not show all the levels you need to justify the line of the toe of your long slope?

A.—It shows all contours.

Q.—You said there was bare rock for about twenty feet from that pile to the crib?

A.—Yes.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)

Cross-examination.

Q.—Will you look at the photographs Exhibits P-108, and P-109, and tell me what you see on those two photographs between the pile and the bare rock?

10 A.—Those are taken from behind the crib. The crib is hiding the bare rock.

Q.—Your point is the crib is hiding 20 feet of bare rock?

A.—Yes.

Q.—On that basis you will see your plan is wrong, because the loose rock continues for a distance. Your pile is quite curved, then you have quite a lot of loose rock in your 20 feet. Do you still persist these photographs support your view that there are 20 feet of bare rock from the edge of the pile to the crib?

A.—From where this photograph P-108 was taken a portion of the bare rock is hidden.

20 Q.—You would say it would hide 20 feet?

A.—Yes, it would.

Q.—And, of course, there is quite a lot of shore, with loose rock, thus exposed?

A.—I am not sure whether that is shore, or whether it is part of the dump.

Q.—Take the shape of your dump. You measure 20 feet between the crib and the edge of your red. Is that where you find your 20 feet? Show me the 20 feet on your plan. Measure 20 feet along the shore from the crib, and tell me where it brings
30 you? About the top of your red, does it not?

A.—No, some distance short of that. It brings me 5 feet north of the east and west line through Station 5.

Q.—Where does it bring you as regards the red? How much is there from the crib?

A.—25 feet.

Q.—Do you mean to say that all the rock we see exposed from the end of what corresponds on the photograph to the end of your sketch is only 5 feet? There are more than 5 feet shown on the photograph Exhibit P-108.
40

A.—The pile I have shown may include some of this rock that is shown on this photograph.

Q.—Not if you take it straight?

A.—That shape, of course, is only approximate.

Q.—Then, it may be wrong.

A.—It may be slightly out.

Q.—The size may be wrong also?

A.—They may not be exactly right.

Q.—And, the distance may be wrong also?

A.—Yes, it may be.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)

Cross-examination.

10 Q.—You have also shown the currents on this plan, and, of course, when the current comes near the stone pile it makes a beautiful eddy, and makes a beautiful curve afterwards. How did you take that observation, and have you any notes of it?

A.—No, I have no notes of it. Just my memory.

Q.—Do you suggest that the fact the current curves there would make much difference as regards as possible leaky toe fill? In other words, does the direction of the current flowing past a leaky toe fill make much difference as to whether the water will go through the toe fill or not?

A.—Not a particle.

Q.—So, the currents are of no importance here?

20 A.—They are important, in this respect: they show that the rock pile was not subject to any very great amount of erosion.

Q.—I examined you very thoroughly about the soundings you took before placing the cribs, and you did not think of telling me that apart from taking your soundings ten feet from each other you dragged the rod to see if there were any large boulders? When I cross-examined you on your testimony for the Plaintiff in chief you did not think of telling me that?

A.—No, I did not think of it.

30 Q.—Although I questioned you very closely and very carefully. For example (page 397):

“Q.—Your only function in connection with the cribs was to locate the place where they were to be placed? What was your duties about getting the data as to where they were to be placed, and plotting on the plan where they were placed?

A.—I took soundings of the site where we proposed to place the cribs, and furnished our crib foreman with sketches to show approximately how we would arrange his bottom courses of logs according to the soundings.

40 Q.—You are the one who took the soundings?

A.—Yes, I took the soundings.

Q.—You took them with a lead and line, or with a rod?

A.—I took them with an iron rod.

Q.—How many soundings did you take?

A.—I took four lines of soundings, one on the line where we proposed to put the face of our cribs, cofferdam, one 10 feet upstream and one 10 feet downstream from that face, and one 20 feet downstream from that face.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)

Cross-examination.

Q.—What distance was each sounding?

A.—I took the soundings at 10 feet each across the river channel.

10 Q.—That is, lines 10 feet apart, and crosswise, across the river, 10 feet apart?

A.—Yes.

Q.—And on that basis you gave the sketch to the crib foreman of what would be the shape of the base of the crib?

A.—Yes.

Q.—Does that sketch still exist?

A.—I do not think so. It was only made on thin paper, and I suppose it is used up.

20 Q.—Did you keep a diary of your occupations there?

A.—Yes.

Q.—Have you got it?

A.—No.

Q.—What has become of it?

A.—I do not know.

Q.—Then, you said, taking soundings and giving the proper sketches from those soundings. I suppose your sketches were based on those soundings?

A.—Yes.

30 Q.—And you gave those to the crib foreman? Then I see you noted the date they were located on the plan?

A.—Yes.”

Q.—Why did you not think of telling me them that apart from taking the soundings you dragged the bottom of your rod over the 10 feet between the soundings? You did not think of it then?

A.—You did not ask me anything about it.

Q.—I asked you what you did. I could not know: you knew.

40 A.—I told you I took soundings at 10 feet intervals, and those are the soundings I recorded.

Q.—At that time you knew that you had not only taken soundings every 10 feet but had dragged your rod between the soundings?

A.—Yes.

Q.—And, when I put you the questions I have just read, you did not tell me about that?

A.—No.

Q.—You knew of it then?

A.—Yes.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)

Cross-examination.

Q.—But, when I put you those questions you did not tell me?

A.—No.

10 Q.—Then afterwards, you told your clients about it, during the adjournment: or did they ask you, or did you discuss the question of your not only having taken soundings but also having dragged your rod in the spaces between the 10 foot soundings to find it there were boulders? Did you speak of that to anybody in connection with this case, since you gave your testimony, in which you would not tell me about it because I did not ask you? Did you speak to anybody about it?

A.—Yes, I have spoken about it since.

Q.—Did anybody ask you, or did you volunteer it?

20 A.—I volunteered it.

Q.—To whom?

A.—I do not just remember who were present at the time I first mentioned it.

Q.—But, it was since you gave your testimony for the Plaintiff in chief?

A.—Yes.

Q.—You had not mentioned it to anyone before?

A.—No, sir.

30 Q.—After I had cross-examined you, and you had the fact in your mind, although you did not tell me, at the adjournment you told it to somebody, you do not remember who it was. Is that a correct statement of fact?

A.—Yes.

Q.—And, you told them because you thought it was helpful to the case?

A.—I mentioned it because we were discussing that particular point.

40 Q.—They were criticizing the insufficiency of your soundings?

A.—No.

Q.—They were discussing the alleged insufficiency of your soundings?

A.—Yes.

Q.—And, you added that piece of information?

A.—Yes.

Q.—You considered it helped to justify your soundings — to make them more effective? Why did you say it, if it was not for that?

A.—Yes.

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal)

Cross-examination.

Q.—Nevertheless, you did not think of telling me when I was questioning you? You had it in your mind, but you would not tell it?

10 A.—I had no record of this. The only records I had were the soundings at 10 foot intervals.

Q.—Do you mean to say that when you have no record you do not testify?

A.—No.

Q.—Because, I gathered you have testified to a lot of things of which you have no record.

A.—No, not at all.

Q.—As a matter of fact, you had no records of your soundings when I cross-examined you: because, you brought them to-
20 day?

A.—Yes, I had a record of them.

Q.—Were they in your diary?

A.—No, they were in a notebook.

Q.—I asked you:

“—Q.—Did you keep a diary of your occupations there?

and you answered:

“A.—Yes.”

I then asked you:

30 “Q.—Have you got it?”

and you answered:

“A.—No.”

I asked you:

“Q.—What has become of it?”

and you answered:

“A.—I don't know.”

Did you know then that you had not a diary, but you had a notebook?

40 A.—I would not keep field notes in a diary.

Q.—I asked for your diary, and you said you had none. Then you told me you had a notebook. Have you a notebook with those things in it?

A.—Yes, I have a noteboook.

Q.—Of your soundings?

A.—Yes.

Q.—May I see it?

A.—Yes.

(The witness exhibits to Counsel the note book in question)

J. C. REIFFENSTEIN (for Plaintiff in Rebuttal) Re-exam.

Q.—I also asked you for the sketch, and you said you did not have it either?

A.—Yes.

10 Re-examined by Mr. St. Laurent, K. C., of Counsel for Plaintiff:—

Q.—You were referred to certain photographs with respect to your locating of the rock pile. Will you say if you also used the one that has been produced as Plaintiffs' Exhibit P-105?

A.—Yes, sir.

Q.—That appears to have been taken just about opposite this portion you call bare rock?

A.—Yes.

20 Q.—And to show it in a shortened effect?

A.—Yes, it would be slightly foreshortened.

Q.—When did this discussion about the manner in which you took your soundings occur; or was there more than one discussion about it?

A.—There were several discussions about it.

Q.—Can you name some of those who were present when the matter was discussed?

A.—Mr. Lindskog, Mr. Steele, Mr. Bishop.

Q.—Why was it not mentioned before?

30 A.—I did not think it was necessary to mention it.

Q.—When one is sounding at frequent intervals with a rod, how is it customary to handle the rod between the points at which the elevations are taken?

A.—Sometimes they drag it, and sometimes they lift it up. You might either drag it or lift it up again. It depends on what you want to find out.

Q.—Is it customary to bring it up, and then put it down again, or is it customary to go the shortest way about it?

40 A.—To go the shortest way.

By Mr. Geoffrion:—

Q.—Then, it was not done for the purpose of discovering something, but merely because it was the laziest way of doing it?

A.—It also shows you what is in between.

Q.—In chief Mr. St. Laurent suggested, and you agreed with him, that you sounded to find boulders. Now you say the

J. L. ALLISON (for Plaintiff in Rebuttal) Exam. in chief.

rod was dragged along the bottom because it was easier, and in order to avoid hard work. Was it through laziness, or curiosity?

A.—Both.

Q.—Both laziness and curiosity?

10

A.—Yes.

And further deponent saith not.

DEPOSITION OF JOHN L. ALLISON

A witness examined on behalf of the Plaintiff in Rebuttal.

20 On this eleventh day of March, in the year of Our Lord, one thousand nine hundred and thirty-three personally came and appeared John L. Allison, of the City and District of Montreal, Civil Engineer, aged 72 years, a witness produced and examined on behalf of the Plaintiff in Rebuttal, who, being duly sworn, deposes as follows:

Examined by Mr. St. Laurent, K. C., of Counsel for Plaintiff:—

30 Q.—You are an Associate Member of the Institution of Civil Engineering of England?

A.—Yes.

Q.—A Member of the Engineering Institute of Canada?

A.—Yes.

Q.—And, a member of the Corporation of Professional Engineers of Quebec?

A.—Yes.

40 Q.—I understand you have been practicing your profession about fifty years?

A.—Since 1885.

Q.—And, you were preparing in 1883?

A.—Yes.

Q.—You have practiced both in Canada and in the United States?

A.—Yes.

Q.—I understand from 1901 to 1919 you were the hydraulic engineering of Ross & Holgate, and Mr. Henry Holgate, of Montreal?

A.—Yes.

J. L. ALLISON, (for Plaintiff in Rebuttal) Exam. in chief.

Q.—They were well known engineers, doing a very large amount of hydraulic work?

A.—Yes.

10 Q.—When did you become connected with the Wm. I. Bishop Company?

A.—I do not remember exactly.

Q.—You have it on your statement as 1927-28.

A.—Is there not something before that, about the Back River?

Q.—In any event, for the last four or five years you have been with the Bishop Company?

A.—With a little interruption. I was with the Department of Railways and Canals for a while.

20 Q.—You remember when the Cedar work was going on Mr. Bishop went to Newfoundland, and when he came back he was ill in the hospital for a time?

A.—Yes.

Q.—Who was in charge as the engineer at that time?

A.—Mr. Lindskog was in charge at Cedar, but I understood he was under the general charge of the Superintendent at High Falls.

Q.—Who was acting as the Directing Engineer from the Head Office while Mr. Bishop was away?

30 A.—The understanding was that in case of any emergency requiring a decision, when Mr. Bishop was away, I was to be his representative.

Q.—Did you make several visits to Cedar while the work was going on?

A.—Oh, yes, I made quite a good many visits: I should say over twenty visits.

Q.—Do you remember going there about the 18th or 19th of June?

A.—Yes. That was my first visit.

40 Q.—Do you remember seeing a rock pile, or a rock spoil pile that had been upstream from the place the cofferdam was to go?

A.—Yes.

Q.—Did you consider anything special in connection with that at the time?

A.—Yes, I did.

Q.—What did you look into at that time?

A.—When I saw that pile at some distance from the cofferdam the question came to my mind whether it was too close to leave room for proper filling in front of the crib.

J. L. ALLISON (for Plaintiff in Rebuttal) Exam. in chief.

Q.—And, to what conclusion did you come?

A.—I came to the conclusion there was plenty room for toe filling.

Q.—How much room was there?

10 A.—At the top of the slope I estimated there was about 25 feet. I did not measure it.

Q.—But, there were about 25 feet?

A.—Yes.

Q.—Did you go back there from time to time?

Witness:—You mean to that particular spot?

Counsel:—To Cedar.

20 A.—Oh, yes.

Q.—Can you say whether when they put the toe fill there there was still that space you had seen between the rock pile and the sheathing

A.—So far as I knew. I never saw any rock being placed closer to the crib than it was at that time.

Q.—You never saw any closer to the crib than you saw it when you examined it on June 18th or 19th?

A.—No.

30 Q.—Will you look at the plan Exhibit P-110, and will you say if the portion colored in solid red shows where that rock spoil pile was?

A.—In a general way, yes. Of course, I did not make any measurements.

Q.—Were you back there after the toe fill had been placed?

A.—Yes.

Q.—How did the toe fill which was above water, or your memory of it, compare with what is shown in purple on this plan?

40 A.—As far as I can tell you, this is at least approximately right.

Q.—Were you there when the shaft was put down along the face of the sheathing of the north embankment or crib No. 1 ?

A.—I was not there when it was first put down, but on one of my visits — I do not remember just when — I saw the shaft. There had been work done on it at that time. I did not see it started.

Q.—Who first suggested and instructed putting in this flume which appears on several of the plans?

A.—I suggested that flume.

J. L. ALLISON: (for Plaintiff in Rebuttal) Exam. in chief.

Q.—Why did you suggest it?

A.—After the men working in that shaft got down apparently as far as they could work, they were standing in water. The water had boiled up from below, and there was no escape for it because the sheathing and the abutment were very tight. I suggested that in order to let the water drain off, and allow the men to work to a lower level, that the sheathing be cut, and the water discharged. Then, later on, to conduct that water across the lower cofferdam, I suggested the flume.

Q.—And, I suppose on a subsequent visit you saw the flume had been put in as you suggested?

A.—Yes.

Q.—Did you see this water bubbling up from the bottom of the shaft?

20

Mr. Geoffrion:—I object to the question. The Plaintiff had the burden of establishing whether the water came from under, or through. He based his claim for difficulties in unwatering on two heads : first, rock trouble, and, secondly, overburden. In chief he had to prove affirmatively that there was an over-burden through which the water passed, and he cannot now come and advance the theory that the water came through, when he first made his evidence in chief that it was coming under. Proof of the fact that it was coming through porous overburden, and not through defective toe filling, cribbing and sheathing, was on the Plaintiff.

I quite appreciate he may answer our criticisms of defective sheathing, defective toe filling, and defective cribbing, but he cannot now strengthen the affirmative part of his case that the water was coming through the over-burden.

Mr. St. Laurent:—The object of the evidence is not to prove it was coming through the over-burden. It is to meet that part of my learned friend's case in which it was suggested the water got in through the rock pile. The suggestion of the Defence is that this rock pile extended to the sheathing, and that the water seeped through under this rock pile towards the sheathing.

The witness was there, and suggested putting in the flume, and his evidence is that when the shaft was dug he saw where the water came into the shaft.

Mr. Geoffrion:—As I understand it, my learned friend is limiting the evidence to the suggestion that the water did not come through the rock?

Mr. St. Laurent:—That is so.

40

J. C. REIFFENSTEIN (recalled for Plaintiff in Rebuttal)
Examination in chief.

I will put the question in another form.

By Mr. St. Laurent, continuing:—

10 Q.—Because of the fact that we are in rebuttal, and there
might be danger of going beyond what would be proper rebuttal,
I will put my question to you in a suggestive form.

All I am concerned with with respect to the source of this
water is whether or not it was coming into this shaft through the
rock pile, or coming from somewhere else.

A.—I could not say. There was not anything to show
which way the water was coming, except that it was boiling up.
It was not coming from the side.

20 Mr. St. Laurent:—I have no further questions to put to
the witness.

Mr. Geoffrion:—I have no cross-examination.

And further deponent saith not.

And the further hearing of testimony in this case is con-
tinued to Tuesday next, March 14th, at 10.30 o'clock in the fore-
noon.

30 DEPOSITION OF JOHN C. REIFFENSTEIN (*recalled*)

A witness recalled on behalf of plaintiff in Rebuttal.

On this fourteenth day of March, in the year of Our Lord,
one thousand nine hundred and thirty three, personally came and
reappeared John C. Reiffenstein, of the City of Montreal, a wit-
ness already examined, now recalled on behalf of Plaintiff in
Rebuttal, who being duly sworn doth depose and say as follows:

40 Examined by Mr. St. Laurent, K. C., of Counsel for Plain-
tiff.

Q.—Mr. Reiffenstein, when you were in the box on Satur-
day, we were not able to lay our hands on exhibit P-95, to enable
you to answer the question I put to you, as to what was the depth
of the water passing over the sills in the by-pass on the 22nd
August, when that jam of logs occurred. We have since located
P-95, and after looking at it, will you tell us what it was?

A.—There would be 4.4 feet of water over the sills.

J. C. REIFFENSTEIN (recalled for Plaintiff in Rebuttal)
Cross-examination.

Q.—That is, I understand, the sills are at about 94?

A.—Yes.

Q.—And the chart shows that on that date the reading was
98. something.

10 A.—98.4.

Q.—There is one question I should have put to you, and
which I forgot. I will ask leave to put it at this time. My under-
standing is, that there was an order given for the cofferdam
apron on the 13th March 1930?

A.—Yes.

Q.—Was there anything necessary to be done to this site
where this apron was placed, and if so, what was it?

A.—We had to make a small cofferdam in the by-pass
to unwater that site, and then excavate, until the Quebec Streams
20 Commission were satisfied with the bottom.

Q.—Then, how many days was it before you could deter-
mine how much concrete you would require for that apron?

A.—We poured the concrete on the 21st and 22nd March,
which was immediately after we had finished the excavation.

Q.—When were you able to determine how much cement
you would require for that extra order?

A.—On the 22nd March, according to the contract.

Q.—I understand you have brought down the invoices for
the dynamite that Mr. Geoffrion said he would like to see, and
30 that you have now them here if he wished to look at them.

A.—Yes.

Cross-examined by Mr. Geoffrion, K.C., of counsel for
Defendant.

Q.—I do not exactly remember exhibit P-95. Were the ob-
servations taken by you?

A.—Not always by me personally; either by myself or by
40 my assistant.

Q.—Have you your notes?

A.—That is a record of the gauge reading.

Q.—There were no notes made on that?

A.—There were no notes made on that. The gauge was
read, and that was put down on that at that time.

Q.—This is a thing that lasts nine months?

A.—Well, each morning the gauges were read, and the
gauges readings were plotted on that chart.

Q.—Do you mean to say that was made all at one time.

A.—No.

J. C. REIFFENSTEIN (recalled for Plaintiff in Rebuttal)
Cross-examination.

Q.—This document itself?

A.—That document itself was made from day to day.

Q.—You say that there was a little stroke drawn over it?

10 A.—Yes.

Q.—In other words, the readings were put down on this piece of paper I am holding here?

A.—Yes.

Q.—Every day?

A.—Yes.

Q.—And there are no notes of the reading elsewhere?

A.—There may be some; I am not sure. My assistant kept it most of the time.

Q.—But you do not know of any?

20 A.—I don't know of any.

Q.—Who is your assistant?

A.—I had three assistants on that job from time to time.

Q.—You cannot say who were the assistants who took these notes? The three of them, I suppose?

Witness:—What date was that started? It started at the beginning of April?

30 Counsel:—It starts apparently I would say, late March.

A.—Well, all three of them had a hand in it then.

Q.—They were the ones who were operating?

A.—Yes.

Q.—You did not?

A.—I did sometimes, but not always.

Q.—Not often?

A.—Not very often.

Q.—And when you did, would you take any notes of it?

40 gauge A.—Yes, I would jot down the readings when I read the and go in and spot on the book.

Q.—Have you it in your books?

A.—Yes, as a rule, in the note book.

Q.—Have you the book? Can you show me anything?

A.—I have not my books here this morning.

Q.—I would like to know which notes you took. Did you take the ones on the 22nd August, for example?

A.—Well, I could not be sure of that.

Q.—You do not know which ones you took?

A.—No.

J. C. REIFFENSTEIN (recalled for Plaintiff in Rebuttal)
Cross-examination.

- Q.—You don't know how many of them you took ?
A.—No.
- 10 Q.—And your book is not here?
A.—No.
Q.—Where is your book?
A.—It is in the office.
Q.—In Montreal?
A.—Yes.
Q.—Can you have it for this afternoon?
A.—Yes.
Q.—And will you also in the meantime look for the notes
you have of these levels on P-95, in your book?
A.—Yes.
- 20 Q.—And where are your assistants?
A.—They are all in Montreal. I think so.
Q.—Who are they?
A.—The first one's name was Mr. W. S. Hunter.
Q.—What was his occupation?
A.—He had been attending McGill University, I believe,
taking a course in Engineering, and the previous summer he had
been down in Newfoundland with me as instrument man.
- 30 Q.—Where does he live?
A.—He lives in Montreal.
Q.—That is all you can say?
A.—Yes.
Q.—Who are the others?
A.—Another was Mr. A. M. Swabie who was with me most
of the summer of 1929.
Q.—What did he do then ? What was his occupation ?
Another student?
A.—He was a student too.
- 40 Q.—Do you know where he is now?
A.—He is in Montreal.
Q.—Do you know where in Montreal?
A.—I am not sure of his address, but I know he is in
Montreal. I have seen him recently.
Q.—And who is the third one?
A.—The third one is my brother, Mr. Frank Reiffenstein.
Q.—In Montreal?
A.—Yes.
Q.—You know where he is?
A.—Yes.
Q.—Is he a student also?

J. C. REIFFENSTEIN (recalled for Plaintiff in Rebuttal)
Cross-examination.

A.—He just finished school. That was his first summer out of High School.

Q.—On the 22nd August who was the one who took the figures, during that period?

10 A.—Well, It would be Mr. Swabie.

Q.—And you say each of these gentlemen wrote down from day to day on this very map the result of their observations?

A.—Yes.

Q.—And you do not think they kept any notes otherwise?

A.—I could not say.

Q.—You will make sure and let us know this afternoon whether they did or not?

A.—Yes.

20 Q.—And which one it is?

A.—Yes.

Q.—Where was the gauge?

A.—The gauge was on one of the concrete piers. It was on the most southerly pier of the openings in the by-pass, of the four openings, that is, the particular gauge that you are referring to.

30 Q.—I do not understand the first two lines here, when you were examined. I call your attention to two lines, one red, one blue, at the extreme left of the exhibit, that would begin somewhere in March, both at a higher level than the main line of the river, and would finish at a tremendous height sometime early in April. What are those two lines?

A.—Those apply to 1930, and they were gauge readings taken, one above the dam and one below the dam at that time in April 1930. They have no significance with these others at all.

Q.—The main one then?

40 A.—The main one, which extends for the whole period from April to December.

Q.—You say the other two were taken one year later?

A.—Yes.

Q.—What about that little line that crosses the line of the level of the water in the by-pass at the end of September, and goes above and below it?

A.—The green line is the level of the river below the downstream cofferdam.

Q.—What is that line that crossed it there in September?

A.—If I remember rightly, I changed the position of my gauge, but I do not remember really what that is now.

J. C. REIFFENSTEIN (recalled for Plaintiff in Rebuttal)
Re-examination.

Q.—You do not remember what it is?

A.—I think I tried a new gauge there.

10 Q.—The 22nd of August was the date that the lowest point
in the by-pass ever attained?

A.—No, the 23rd was the lowest.

Q.—Have you got those vouchers?

A.—Yes.

Q.—I won't ask you to file this. I see this is an account
of the estate of the late James McCabe with the W. I. Bishop,
Company, Montreal; the first account is dated November 20th
and contains nothing on the subject the second account dated
November 30th shows an entry, 23rd November for six pounds.
What is that?

20 A.—Dulin, he calls it.

Q.—And 12 caps and one half roll of fuse delivered to Tru-
del. Who was Trudel?

A.—He was a mechanic.

Q.—Working where?

A.—He would come up to take charge of any machinery
we had there. We had only the derrick at that time, and he did
other work.

Q.—Was he at High Falls or at Cedars?

A.—At Cedar Rapids.

30 Q.—The same day another six pounds?

A.—Yes.

Q.—Also delivered to Trudel?

A.—Yes.

Q.—Then, nine pounds on the 27th?

A.—Yes.

Q.—And then, on the 30th, you got one box and five
pounds?

A.—Yes.

40 Q.—How many pounds does the box contain?

A.—The box would be fifty pounds.

Q.—Is there another account for High Falls, or is that
the account for both places?

A.—It is the account just for Cedars. There was nothing
sent from McCabe to High Falls.

Re-examined by Mr. St. Laurent, K.C., of counsel for
Plaintiff.

Q.—If I understand you correctly, when you referred to

A. L'HEREUX (for Plaintiff in Rebuttal) Exam. in chief.

High Falls in connection with dynamite, it was because you stated that some had been obtained from High Falls?

A.—Yes.

10 And further deponent saith not.

DEPOSITION OF ANDRE L'HEREUX

A witness produced on behalf of the Plaintiff in Rebuttal.

On this fourteenth day of March, in the year of Our Lord, one thousand nine hundred and thirty-three, personally came and
20 appeared André L'Hereux, of St. Narcisse, Quebec, Foreman Carpenter, a witness produced on behalf of the Plaintiff in Rebuttal, who being duly sworn, doth depose and say as follows:

Examined by Mr. St. Laurent, K. C., of Counsel for Plaintiff:—

Q.—I understand, Mr. L'Hereux, because we have not a French Stenographer available at this time, you will try and give
30 your evidence in English?

A.—Yes.

Q.—Where do you live?

A.—At St. Narcisse.

Q.—What is your occupation?

A.—Foreman carpenter.

Q.—How long have you been working as a Foreman carpenter?

A.—Twenty-one years.

40 ed ? Q.—What are the principal jobs on which you have worked ?

A.—Building dam and power house at Grand'Mère in 1912.

Building dam and power house at Eugenia Falls in 1923 ; back to Grand'Mère on dam and power house, repairing Paper Mill and building houses until 1921.

In 1922 on construction of Paper Mill, St. Lawrence Paper Company, Three Rivers.

In 1923 or 1924, if you will let me look at my note book...

A. L'HEREUX (for Plaintiff in Rebuttal) Exam. in chief.

Q.—It is not important, but around 1923 or 1924 where was it?

A.—In 1923 or 1924 at Kenogami for the St. Lawrence Paper Mills, for Price Brothers.

10

In 1925 and 1926 at Limoilou — I beg pardon, in 1925 and 1926 I was at River Bend for Price Brothers again.

Q.—Then, after River Bend?

A.—In 1927 and 1928 I was at Limoilou, Quebec, with the Anglo Canadian.

From 1928 to 1930 I was at Cedars Rapids with the Mac-laren Company.

20

Q.—We are not interested beyond that. Were you on this job at Cedars Rapids the whole time it was in progress?

A.—Yes, I started a few days after the very beginning.

Q.—That would be sometime in October or November 1928 ?

A.—October 1928.

Q.—And you stayed there till the end of the work?

A.—Yes.

30 Q.—Who supervised the building and design of the cribs for the cofferdam?

A.—I did.

Q.—From whom did you get your preliminary information as to the place where you had to put these cofferdams?

A.—From Mr. Reiffenstein.

Q.—What use did you make of that information?

A.—I took his information. He gave me soundings across for the logs and soundings for the cribs.

40 Q.—What else did you do before building your cribs, if anything?

A.—I took soundings there myself. I had soundings given me by Mr. Reiffenstein, and I took soundings there myself. Whenever I used to build one crib I would take the soundings for that particular one.

Q.—How would you do that?

A.—There was a suspended bridge there, and we had a float ; I took soundings from both, from the float and from the bridge.

Q.—What was your purpose in doing that?

A. L'HEREUX (for Plaintiff in Rebuttal) Exam. in chief.

A.—To find out exactly how the bottom was, and at the same time to give a check to Mr. Reiffenstein

Q.—After getting that information, how did you proceed to make your crib?

10 A.—We made our crib according to the bed of the river, and floated them down.

Q.—How are these cribs made? Are they just one frame, — one large frame, or is that frame divided up in pockets?

A.—The cribs were built there were divided in pockets about eight or nine feet square.

Q.—Is there any flooring put in these cribs?

A.—Yes, there was a flooring put in every other pocket, one for each alternating pocket.

20 Q.—Where would you put that flooring in, with respect to the bottom of the crib?

A.—If the bed of the river was on a slope, of course we can add from the places where we moved three courses of logs. The flooring was level, and the bottom of the crib was fitted to suit the river.

Q.—And you say that sometimes you would have three courses of logs until you got to the place where you put in your flooring?

A.—It was on a slope.

30 Q.—Are you saying that with respect to some of these cribs, or at least with respect to one of them, there was as much as three courses of logging before you got the floor in?

A.—Yes.

Q.—After building the crib in that manner, how would you proceed to get it down?

A.—We tied them with the cable and floated them down.

40 Q.—Do you remember what happened when you were placing the crib, which is shown on this plan P-37, as being No. 3, that is to say, the crib which appears to have got down below the general alignment.

Mr. Geoffrion, K.C., of counsel for Defendant objects to this question as not arising in rebuttal.

The Court allows the evidence under reserve.

Witness:—When I left at six o'clock?

By Mr. St. Laurent:—

A. L'HEREUX (for Plaintiff in Rebuttal) Exam. in chief.

Q.—Before you left there, when you were getting it in. Mr. Dubreuil has filed as an exhibit, a copy of a sketch in his note book, exhibit D-41, and he has stated both from his recollection and his notes, that at one time while that crib was being
10 placed, it got into a diagonal position or corner-wise between No. 2 and No. 1. What have you to say as to that?

A.—This crib was going down diagonally on account of the current, and when it got somewhere near the line, of course, it was altogether diagonal, not so much as that sketch. That is much exaggerated and not so much downstream, but when we left it at six o'clock, it was in position.

Q.—What do you mean by it was in position?

A.—It was not diagonal like that. It was turned over before we started loading it.

20 Q.—It was turned around?

A.—It was turned around very close to the position within — well, within maybe a foot or so.

Q.—How was it being held when you left at six o'clock?

A.—With the cable.

Q.—And where were those cables attached?

A.—To the shore.

Q.—What was being done when you left?

A.—When I left there to have supper, there were men there in front of the crib, to keep the logs away, and when I came
30 back, shortly before seven o'clock, the men were still there. and that was the reason why I was down there to see that the men were there to keep the logs away from the crib, and also to see that nothing would happen.

Q.—What was being done to the crib itself?

A.—They had been loading it; when I left at six o'clock, they had started to load the crib, and they were still loading it when I got back.

Q.—How long does it take to load a crib of that size?

40 A.—It might take twelve, or fourteen or eighteen hours.

Q.—How long were you away then?

A.—About three quarters of an hour for supper.

Q.—In what position was the crib when you got back?

A.—The crib was in the same position as when I left it, when I got back.

Q.—Did anything happen to it afterwards, later that night?

A.—Yes, during the evening of that night.

A. L'HEREUX (for Plaintiff in Rebuttal) Exam. in chief.

By Mr. Geoffrion:—

Q.—Were you there?

10 A.—Yes sir. During the evening of that night the logs kept on piling, and the men we had there could not push all the logs away, so they accumulated in there, and then the crib got crosswise and started to crash, so I sent for Mr. Lindskog, and Mr. Lindskog advised to put some tie cables from the corner of the crib, which we did.

By Mr. St. Laurent:—

Q.—Did you send for Mr. Lindskog?

A.—Yes.

20 Q.—How long did it take for him to get there?

A.—It was not very long. It might have been five or ten minutes. He was right on the job.

Q.—So almost as soon as you sent for him, he got there?

A.—Yes. He was at home.

Q.—You have before you exhibit P-37. Can you tell us how close crib No. 3 was placed to crib No. 1 before this log jam came against it that you have mentioned?

A.—How close it was?

30 Q.—Yes.

A.—How close it was sideways?

Q.—Do you remember how near you got it to crib No. 1?

A.—I am afraid I don't remember exactly just the distance it was.

Q.—Do you remember while it was there in between No. 1 and No. 2, how much space there was each side of it?

A.—There might have been five or six feet on one side.

Q.—Which side?

A.—The side towards this crib No. 2, I believe.

40 Q.—And how much on the other side?

A.—There was not so much on the other side.

Q.—Who had taken the measurements and made the investigation before building crib No. 3?

A.—Both Mr. Reiffenstein and I. Mr. Reiffenstein had given me soundings, and I had taken soundings myself.

Q.—At that time, in what position was crib No. 2?

A.—Crib No. 2 was at a distance up further than it should have been, and it was tipping over on one side. That was the reason we had to leave so much space in between those cribs.

A. L'HEREUX (for Plaintiff in Rebuttal) Exam. in chief.

Q.—It was canted over?

A.—Yes, No. 2 was canted over, and at the bottom it was tipping towards the bottom, and the crib had to be made shorter, because if we had made it to fit the top, it would not have floated
10 in at all on account of the slope at the bottom of No. 2 crib.

Q.—When you say that No. 2 crib was out of plumb, are you referring to the condition which appears on the photograph P-71 and on the photograph D-27?

A.—Yes.

Q.—What kind of current was there where you were placing these cribs?

A.—It was very swift. I don't know just how fast it was, but I know it was very bad.

Q.—Had that anything to do with the closeness of the fit
20 you intended for your cribs?

A.—Yes, the fact that the current was so fast, and we were floating them from the eddy, we could not get them within a couple of feet on either side. It was almost impossible, otherwise they would have pushed up against the other cribs, and we could not have got them in at all.

Q.—Were you taking care of that when you made your cribs?

A.—Surely.

Q.—What condition developed from the piling of these
30 logs? What happened?

Mr. Geoffrion:—I object to this question as not arising in rebuttal.

Mr. St. Laurent:—I will withdraw the question.

By Mr. St. Laurent:—

Q.—How, if at all, did the fact that the flooring of your
40 cribs was not right down on the bed of the river have any effect on the logs when they piled against them?

Same objection.

The Court reserves the objection.

A.—Of course, the logs would have piled in, run in between those timbers of the crib.

A. L'HEREUX (for Plaintiff in Rebuttal) Exam. in chief.

By Mr. Geoffrion:—

Q.—Under the floor ?

10 way. A.—Under the floor, and they would run in from every

By Mr. St. Laurent:—

Q.—Was it possible to see through that water at the place
were the cribs were put ?

A.—There were times when it was very clear, you could
see, but you could not see very far down.

Q.—Why was that ?

20 A.—Due to the fact that the water was dirty and dark,
and often enough there were so many logs there, you could not
see down below.

Mr. Geoffrion:—Same objection as not being rebuttal.

Same reserve.

By Mr. St. Laurent:—

Q.—Who superintended the placing of the sheeting ?

A.—I did.

30 Q.—We already have it in evidence that that sheeting was
three, two inch planks ?

A.—Yes.

Same objection.

Same reserve.

Q.—What was done to get those individual sheets down to
the bottom of the stream ?

40 A.—We had to make a frame up in front there, and then
drive those sheetings.

Same objection.

Same reserve.

Q.—How did you drive them ?

A.—We placed our sheeting there, and then we drove
them down with mallets, when they were not very hard, and then
when they got to be hard, we had a log hung up to the derrick
boom, and we would bang that log on the top of the sheet piling.

A. L'HEREUX (for Plaintiff in Rebuttal) Exam. in chief.

Q.—You had a log hung from your derrick boom and you would bang that on the top of the sheet piling?

A.—Yes.

10 Q.—Could you give a pretty heavy blow from a derrick in that way?

A.—Well, we had a hard wood log there.

Same objection.

Same reserve.

Q.—You say you had a hard wood log?

A.—We had a hard wood log, and we hung it to the derrick boom with a sling and dropped it on to the sheet piling to drive them in.

20 Q.—Do you remember anything about some boulders being placed before you attempted to float your crib No. 4 into position, the closing crib?

A.—Yes.

Q.—Where were those boulders placed?

A.—On the back of the crib.

Q.—When you say on the back of the crib, what do you mean?

A.—On the downstream side of the crib.

30 Q.—What was the purpose of putting those boulders there?

A.—There was a drop in water that was bad ; we put down boulders there, that is, boulders, broken rock, large rocks blasted from the quarry. They were dropped down behind the crib to sort of change the effect of the water at that one particular place.

Q.—How did you drop those boulders in?

A.—Well, some were placed with a derrick on the edge of crib No. 2 and rolled in, and others were dropped from the derrick line.

40 Q.—Am I to understand as to some of them, you carried them over with a derrick, and put them on crib No. 2, and then shoved them off and let them fall into the stream?

A.—Yes.

Mr. Geoffrion:—That is, for crib No. 4?

Mr. St. Laurent:—Crib No. 4 .

A. L'HEREUX (for Plaintiff in Rebuttal) Exam. in chief.

By Mr. St. Laurent:—

Q.—And as to others, you let them down direct from the derrick to the place where you wanted them to go?

10 A.—Yes.

Q.—What size pieces were those?

A.—They might have been three quarters of a yard and perhaps better.

Q.—Weighing how much to how much?

A.—They might have weighed a ton or more.

Q.—And how many of them were put in there?

A.—There must have been about twenty.

Q.—When the cofferdam was unwatered, were you able to see where those rocks were, with respect to the bottom of your
20 crib No. 4?

A.—There were not very many rocks there that you could see. You could see a few of them; perhaps some of those rocks had rolled down from the place that we have put them in.

Q.—Were you able to tell whether or not there were any of them which remained under the crib?

A.—No, not to my knowledge.

Q.—How did that crib rest, with respect to being plumb or not?

A.—If I remember well, that particular crib was a little
30 bit out of plumb too.

Q.—On all faces, or on which face?

A.—If I remember well it was canting only one way.

Q.—Which way?

A.—I cannot determine now whether it was from right to left, or from left to right.

Q.—Do you remember the first big shot that was set off, the blast on the island?

A.—Yes.

40 Q.—At what time of the day or night was that?

A.—It must have been late at night, because I did not hear it.

Q.—Do you remember that it had not been set off when you left one day, and that it had been set off when you came back the next morning?

A.—On the day of the blast I left at six o'clock at night, and the blast was not set off, and I stayed at home that evening, and I did not hear the blast go off, and I went to bed about eleven o'clock.

A. L'HEREUX (for Plaintiff in Rebuttal) Exam. in chief.

Q.—And what condition did you find when you got back the next morning?

A.—The next morning the shot was off, and the bridge was down.

10 Q.—What happened to the bridge?

A.—One of the cables gave way.

Q.—Something has been said about damage having been done to the north shore pier at that time. Do you remember anything about that?

A.—If I remember well, there was very little. One top cross log, and perhaps a few sheeting tops.

Q.—Did you explain how the damage had been done to the bridge?

20 A.—Yes. One anchor had given way, anchor or cable — one cable.

Q.—It was a bridge suspended on two cables?

A.—Yes.

Q.—And one of them gave way?

A.—One of them gave way.

Q.—What effect did that have on the work?

A.—It did not have much effect on the work.

Q.—How did you proceed when the bridge was put down?

30 A.—There was a platform made, and the men who were working on the north side of the river were transported over on the cableway.

Q.—You had a cableway at that time, and when this happened to the bridge, you carried your men back and forth in a suspended contrivance on the cableway?

A.—Yes.

By Mr. Geoffrion:—

Q.—You did not repair the bridge?

40 A.—No.

By Mr. St. Laurent:—

Q.—Did you continue that system to the end, or did you repair or replace that bridge?

A.—That bridge was to be done away with after this crib was placed.

Q.—Which crib?

A.—The crib we were landing.

A. L'HEREUX (for Plaintiff in Rebuttal) Cross-examination.

Q.—And what did you do then?

A.—We just carried the bridge across the cofferdam.

Q.—Was the brige below or above the line of the cofferdam?

10 A.—Below.

Q.—Then, when this happened, you placed the crib you were landing and you rebuilt your bridge in the line of the cofferdam?

A.—As soon as the cofferdam was loaded.

Q.—Were you placing cribs in the river, or what were you doing at that time? I understand the north abuttment was built, because you say there was one log damaged?

A.—Yes, this one here.

Q.—Had the south abuttment been built?

20 A.—The south abuttment was built first, and then the north, and then No. 1 crib.

Q.—Well then, what was it you finished before you put your bridge in the line of the cribs. It is not very important and if you don't remember, perhaps we can do without it. We have some photographs which show the situation on, I think it was, the 23rd or 24th of March, and wish also show the new bridge on the 20th of April.

30 Mr. Geoffrion:—The difficulty of that is, the witness has limited the damage to the bridge, that much later, when he is brought back.

By Mr. St. Laurent:—

Q.—Do you remember when this first blast occurred? What season of the year was it?

A.—No.

40 Cross-examined by Mr. Geoffrion, K. C., of Counsel for Defendant:—

Q.—I understand you were the person responsible for the building and placing of the cribs, and for the placing of the sheeting?

A.—Yes.

Q.—What experience did you have before that in building and placing the cribs?

A.—Building cribs for the Laurentide Company in Grand'-Mère.

A. L'HEREUX (for Plaintiff in Rebuttal) Cross-examination.

Q.—What was the purpose of those cribs?

A.—For dam and power house. The purpose was to stop the water.

Q.—When was that?

10 A.—In 1912.

Q.—Were you in charge, or merely working?

A.—Foreman, building cribs.

Q.—But somebody else was in charge of building the cribs?

A.—Yes.

Q.—You worked as a foreman?

A.—Yes.

Q.—You had no other experience, therefore, you never had the responsibility of building or placing cribs before?

A.—No.

20 Q.—At Grand'Mère did you work only at building the cribs, or only at placing them?

A.—Building and placing them.

Q.—As regards sheeting, did you ever have anything to do with placing sheeting?

A.—Yes.

Q.—Where?

A.—At Grand'Mère.

Q.—Again as foreman under somebody in charge?

A.—Yes.

30 Q.—With regard to your soundings, was this the first time in your life you took soundings for any practical purpose?

A.—No.

Q.—What did you take soundings for before?

A.—For the cribs at Grand'Mère.

Q.—Were you helping somebody to take them?

A.—I was taking them myself.

Q.—In this particular case, you had received the soundings from Mr. Reiffenstein?

A.—Yes.

40 Q.—What did he give you? Did he give you soundings only?

A.—He gave me sketches of the soundings.

Q.—Have you those sketches?

A.—No.

Q.—They are gone? He gave you sketches of the soundings?

A.—Yes.

Q.—Not the soundings themselves? Not the figures? He did not give you the numbers?

A. L'HEREUX (for Plaintiff in Rebuttal) Cross-examination.

A.—It was a practical sketch made of the elevations of the river.

10 Q.—Was it a blue print ? Was it something like that, a series of figures indicating where he had taken soundings, what I show you there, like P-112?

A.—It was not a blue print, of course. It was a white piece of paper with four lines, with elevations given.

Q.—It was a piece of white paper on which there were four lines and on each line where was a series of elevations?

A.—And not only that. It was a plan and section.

Q.—A plan and section giving these figures in four lines?

A.—Yes.

Q.—Was there one section, or four sections?

A.—There was one section.

20 Q.—On which line?

A.—The face of the crib.

Q.—The upper line of the four lines was given you, both plan and section, with figures on top of it?

A.—Yes.

Q.—On both?

A.—Yes.

Q.—And the others were on the line?

A.—Yes.

30 Q.—You stated you took soundings yourself?

A.—Yes.

Q.—How did you take them? With a line or what?

A.—With a pipe, a graduated pipe every foot.

Q.—Did you take the same soundings or others?

A.—I had taken several soundings.

Q.—Did you take notes of the soundings you took?

A.—Well, I added sounding notes to the sketch I had.

Q.—You took other soundings?

A.—Yes.

40 Q.—You don't know what became of them? They are lost? You have not got the soundings?

A.—No.

Q.—You don't know how many you took ?

A.—We had taken them for every crib.

Q.—I ask you how many soundings you took yourself. I am not speaking of the others?

A.—I took them for every crib we built.

Q.—For how many? For each crib?

A.—There were two lines of soundings taken, upstream and downstream.

A. L'HEREUX (for Plaintiff in Rebuttal) Cross-examination.

- Q.—In each line, how many feet apart?
A.—Sometimes two and sometimes three feet.
Q.—And upstream and downstream?
A.—Yes.
- 10 Q.—You say you took them partly from the bridge?
A.—From the bridge and from the float.
Q.—Did you make any sketch of the bottom of the crib?
A.—No, the sketch I had from Mr. Reiffenstein.
Q.—You told me that was on one section of the river?
A.—On each crib.
Q.—He gave you the section of the crib?
A.—Of the crib.
Q.—Why did you take soundings?
A.—I just wanted to justify my check.
- 20 Q.—You wanted to check Mr. Reiffenstein?
A.—Mr. Reiffenstein's soundings.
Q.—Had he asked you to go and take soundings to check
his own?
A.—Yes.
Q.—You did it yourself?
A.—Yes.
Q.—That was your beginning of making cribs, and you
thought you would check the Engineer?
A.—I did not think I did.
- 30 Q.—You thought you should go and check the Engineer?
A.—That I should justify myself.
Q.—You took, then, many more soundings than he did, of
course?
A.—I don't know how many he took.
Q.—You had the picture before you. He gave them to
you ?
A.—But I have not got them here.
Q.—But you had them then?
A.—Yes.
- 40 Q.—And you knew how many there were then?
A.—Yes.
Q.—Do you know how many he had taken? Do you re-
member how many he gave on his plan or sketch?
A.—He gave me sections about every ten feet.
Q.—You were satisfied with that?
A.—Well, I was not satisfied. I just wanted to do my own
checking, the same as I always do.
Q.—The same as you always do?
A.—On all other works.

A. L'HEREUX (for Plaintiff in Rebuttal) Cross-examination.

Q.—I understand that was the first time you had the responsibility of placing cribs?

A.—Yes, but on all other works I do, I always check.

10 Q.—But in this particular case in Grand'Mère, I suppose you did not check those above you, when you were foreman?

A.—I did check my work when I did it.

Q.—At Grand'Mère when you were a mere foreman over people, and other people over you, you would not check it?

A.—Before I do any work I check.

Q.—On the work at Grand'Mère?

A.—At Grand'Mère I did.

Q.—You took soundings yourself?

A.—Yes.

20 Q.—You did take soundings?

A.—Yes.

Q.—Under whom were you working there?

A.—I forget whether it was with Charlebois or Brisbois, one of the two.

Q.—Who were those people?

A.—They were in charge of all cofferdams.

Q.—And they had an engineer?

A.—Yes.

Q.—Who was the engineer?

30 A.—J. O. Sullivan.

Q.—The engineer and your foreman made them from soundings?

A.—Yes.

Q.—As carefully as here?

A.—Yes.

Q.—I would like to have the story of the descent of crib No. 2, or, did your crib go into the right place where you wanted it put?

A.—No. The crib was meant to go next to No. 1.

40 Q.—And it did not go there?

A.—No.

Q.—You did not manage to put it where you wanted it?

A.—No. It moved over towards the center of the river.

Q.—So your elaborate soundings and fittings were not of much use there?

A.—Well, in that case no.

Q.—That was on the 16th July, was it?

A.—It is dated here the 16th July, but I don't remember.

A. L'HEREUX (for Plaintiff in Rebuttal) Cross-examination.

Q.—Apparently, four days after you started placing crib No. 3. In fact, you started building crib No. 3, and when you built crib No. 3, you built it smaller than the gap, because crib No. 2 was already tilting ?

10 A.—Yes.

Q.—So crib No. 2 started to tilt very early, there were four days between the two, and it had already tilted so much when you started building crib No. 3, that you had to make three smaller than you would have done otherwise, is that right ?

A.—Yes.

20 Q.—Let us come to crib No. 3. You say crib No. 3 was going down diagonally. I want you to tell me exactly if it got in between No. 1 and No. 2 diagonally, or was it straightened before it got in line ? You said that when it was diagonal, it was a little higher up than shown on the sketch. Am I to understand, therefore, that you got it straightened out into its proper position ?

A.—Its proper position ? Well, it was diagonal all the way down.

Q.—But when it came in line with the two others, No. 1 and 2. it was then straightened up diagonally ?

A.—No, it was not straight. It was somewhat diagonal.

30 Q.—You would not say it was ever as diagonal as shown by Mr. Dubreuil's sketch ?

A.—That sketch is exaggerated of course.

Q.—Why do you say, of course ?

A.—Because it is.

Q.—You said the sketch was wrong in other respects also, that when it was diagonal, it was never as diagonal as that, and you also said that it was higher up the river when it was diagonal ?

A.—It was floating down. When it was floating down it was diagonal.

40 Q.—But when it came into position it was not diagonal any more, when it came in line with the others ?

A.—It was diagonal until it got down into the place.

Q.—I mean in line. Of course, it is not in place if it is diagonal. I want to know when it got in line with the other cribs had it ceased to be diagonal ?

A.—It was still diagonal.

Q.—As much as before, or less ?

A.—It was not so bad when it got in line with the cribs.

Q.—Did you place it after it was in position, or before it was in position ?

A.—After it was down on the line it was turned over.

A. L'HEREUX (for Plaintiff in Rebuttal) Cross-examination.

Q.—A little bit?

A.—Yes.

Q.—Very little. Can you give us a sketch of how much
it was? Will you please give us a sketch of the three cribs just
10 before you finally straightened it out that evening at seven
o'clock.

Mr. St. Laurent:—He did not say he straightened it out
at seven o'clock. He said, before he left for supper.

By Mr. Geoffrion:—

Q.—Well, before six o'clock then? You don't like Mr. Du-
breuil's sketch, but I want you to make us a good sketch of how
20 they were when you left at six o'clock.

You have now made a sketch, and put on the lower part
of D-41 your initials "A. L'H." and this indicates the extent to
which, according to you, at six o'clock the No. 3 crib was mis-
placed?

A.—No, that is before six o'clock.

Q.—Well, before if you like.

A.—Because, when we left it at six o'clock, it was very
30 near on the line.

Q.—How long before six o'clock was it that way then?

A.—That was between four and six. I could not tell
exactly.

Q.—Do you mean that when you got there, it was placed
immediately?

A.—We kept on working until it was placed.

Q.—Did it take a long time to place it?

A.—We worked there from about four o'clock till six.

Q.—So, therefore, it did not stay there that way?
40

A.—No.

Q.—It was not left to stay there that way at all?

A.—At the time when we floated it down.

Q.—And you said when you left it, then it was straight?

A.—It was turned over.

Q.—Was it in line with the others at that time?

A.—Very close to the line.

Q.—Was it higher up or below?

A.—Possibly eight to nine inches on one side.

A. L'HEREUX (for Plaintiff in Rebuttal) Cross-examination.

Q.—Was it even at one point?

A.—Yes.

Q.—One corner was found with the neighbouring crib, and the other corner was eight or nine inches lower?

10 A.—Eight or nine inches lower.

Q.—Which corner was eight or nine inches lower?

A.—On the north side, if I remember well.

Q.—When you left at six o'clock, you say the men were keeping logs away?

A.—Yes.

Q.—For how long had logs been coming that day?

A.—There had been some coming all day.

Q.—Were they more than an hour?

A.—They were more during the afternoon.

20 Q.—At six o'clock, when you left?

A.—There were three men on the float. They kept the logs away.

Q.—And you came back at seven o'clock?

A.—I was about three quarters of an hour away for supper.

Q.—And when you came back, the crib was still in the same place as before?

A.—Yes.

Q.—And at what hour did it begin to crack, as you say?

30 A.—I could not say exactly what time it was. It was during the evening sometime.

Q.—During the evening it started to crack? Until then it was still in the same place?

A.—Yes.

Q.—And then, you called Mr. Lindskog?

A.—Yes.

Q.—What happened to the crib then?

A.—Mr. Lindskog told us to lash the crib to both the neighbouring cribs, which we did.

40 Q.—What happened to the crib before you lashed it?

A.—It turned over diagonally.

Q.—It became diagonal again?

A.—Well, started to crash back.

Q.—It turned over diagonally again? What direction did it turn this time?

A.—I don't remember whether it was on the north or south side. The logs were piled up.

Q.—You say it started to crack?

A.—To crack.

A. L'HEREUX (for Plaintiff in Rebuttal) Cross-examination.

Q.—Did it change its position or not?

A.—It started to go down on the line right across the bridge, and I sent for Mr. Lindskog.

10 Q.—You cannot tell us whether it started to turn and drift down ?

A.—All I heard was a noise.

Q.—You don't know. You did not look.

A.—I heard a noise there and the breaking, but I chased away and got Mr. Lindskog.

Q.—You later built crib No. 5. Did you build crib No. 5 that went on top of crib No. 3?

A.—Yes.

Q.—There were no logs to trouble you there?

A.—Yes, there were logs.

20 Q.—How did you get them out?

A.—We got some of them out.

Q.—How did you build your crib?

A.—We built the crib in place.

Q.—There were no logs in the way of the crib then at that particular place where you built that crib? There were no logs?

A.—Where we built No. 5 crib?

Q.—Because you took the logs out from there?

A.—We pulled them with the derrick.

30 Q.—You got the logs out from where you put No. 5?

A.—With the derrick.

Q.—Any how, you did it?

A.—Yes.

Q.—You say that logs would run into your crib. How would they run into your crib? Where?

A.—They would float in between the timbers.

Q.—I suppose there was stone there, inside the crib?

A.—Between the time we loaded the cribs.

40 Q.—Between the time when they had loaded the cribs the logs might float in?

A.—Yes.

Q.—And logs might also float in the gaps, between the gaps in the cribs?

A.—They might have.

Q.—Did you ever fill those gaps?

A.—Yes.

Q.—How did you fill them?

A.—With rocks.

Q.—What was there to hold the rocks?

A.—We had timbers and rocks.

A. L'HEREUX (for Plaintiff in Rebuttal) Cross-examination.

Q.—Once they were filled with rocks, the logs could not get in ?

A.—No.

10 Q.—So your complaint is that logs could get in before you filled the cribs ?

A.—Yes.

Mr. St. Laurent:—I object. I don't know that it is a complaint. This witness is not a party to the litigation.

By Mr. Geoffrion:—

20 Q.—You tried, and succeeded, you told us, and managed to take away the logs that were fastened above or against crib No. 3, in order to place crib No. 5. Did you try to take logs away from anywhere else ?

A.—Sure.

Q.—Where did you try ?

A.—Everywhere.

Q.—You succeeded opposite crib No. 3, where you put crib No. 5 ?

A.—Yes.

Q.—Did you succeed elsewhere ?

A.—Yes.

30 Q.—You told me you hammered the sheeting down ? Would you hammer sheeting against a ledge of rock ? Would you think it would be common sense to hammer sheeting against a ledge of rock ?

A.—No, you cannot drive sheeting down against a ledge of rock.

Q.—Therefore, when you hammered the sheeting down, you did not think there was any ledge there ?

A.—There was ledge according to the soundings I had taken. The pipe answered as if it was on ledge.

40 Q.—On all your soundings the pipe answered as if it was on ledge ?

A.—Yes.

Q.—Then, why did you hammer your sheeting ?

A.—On account of the pressure against the planks, and they did not get down far enough, so we had to hammer down.

Q.—Because, I have your experience in placing sheeting, and it strikes me as being very strange that you mention driving sheeting down against ledge. Something would smash, and it would not be the ledge ?

A. L'HEREUX (for Plaintiff in Rebuttal) Re-examination.

A.—When we got down to the ledge, we stopped driving them.

Q.—They did get to the ledge, according to you?

A.—There are a number of places where they did not get
10 down to ledge that I know.

Q.—Then, when you started hammering, you knew there was no ledge?

A.—No, I did not know there was no ledge.

Q.—You thought there was ledge, as shown by your soundings?

A.—As shown by soundings, according to the answer of the pipe. It answered as if it was on rock.

Q.—And thinking there was ledge, you used that heavy hammer to drive the sheeting down. That is your answer? You
20 said, some of the rocks had rolled down, some of the rocks placed to keep up the crib were rolled down by the current?

A.—Yes.

Q.—I am wondering if you did not make a mistake. Am I to understand from you that the bridge that was damaged by the dynamite, when the rope carrying it was broken, was scrapped after that, or was it repaired?

A.—It was not placed in the same place.

Q.—When was it moved?

A.—I don't remember the date.

Q.—When the cribs had been placed?
30

A.—I don't remember.

Q.—I suggest to you that you could not move the bridge down to the cribs if the bridge was not yet there?

A.—I don't know the date when the other bridge was built.

Q.—You do not know, therefore, if this bridge was repaired or not?

A.—I don't remember.

Re-examined by Mr. St. Laurent, K.C., of counsel for
40 Plaintiff.

Q.—Did I understand you to say that you got all the logs out from the front of the cribs?

A.—All those that we could handle.

Q.—Were you able to get them all out, or did any remain?

A.—I don't know. I got all those that I could see.

Q.—Who built the struts and walers out in front of the cribs that the sheeting was nailed to?

A.—I did.

A. L'HEREUX (for Plaintiff in Rebuttal) Re-cross-examination

Q.—Why were those struts and walers placed there?

A.—On account of the logs sticking.

Q.—What logs?

10 A.—We could not put our sheeting against the crib. We had to strut our sheeting.

Q.—You said on account of the logs sticking?

A.—In front of the cribs.

Q.—You have just stated to Mr. Geoffrion that the boulders you placed for No. 4 crib, were rolled down by the current. When were they rolled down?

A.—Some of them were rolled down and away by the current, and the others were taken out afterwards, as they fell in.

20 Re-cross-examined by Mr. Geoffrion, K. C., of Counsel for Defendant:—

Q.—Where were the logs that bothered you for placing your crib after you had removed all those you had seen?

A.—In front of the cribs.

Q.—I know they were not downstream miles away, but which crib?

A.—There were cribs all over in front here.

Q.—You first told me you had taken away all the logs?

30 A.—All the logs we could see.

Q.—Then, you surely took away every log opposite No. 3, since you managed to build crib No. 5 there, undoubtedly?

A.—All the logs we could see.

Q.—At all events, whether you saw them or not, when you built crib No. 5, it would have hit a log, if it had not gone away. You say you built crib No. 5 over logs, and if so, why could you not build your sheeting?

A.—We could not drive the sheeting down with the logs.

40 Q.—I am speaking of the crib. I want to know whether you take back what you told me very clearly when you were examined about crib No. 5. You said you managed to get all the logs out?

Mr. St. Laurent:—I do not think it is quite fair to say that he got all the logs out.

Mr. Geoffrion:—I am asking him now for an explanation as to how he could place No. 5 without taking the logs out.

A. L'HEREUX (for Plaintiff in Rebuttal) Re-cross-examination

Mr. St. Laurent:—He said he took out all he could see.

By Mr. Geoffrion:—

10 Q.—Do you say there were logs left where crib No. 5 rests?

A.—I cannot say if there were logs.

Q.—Do you think that if you put crib No. 5 there, you would have been able to put it there if there had been logs stick to crib No. 3?

A.—There were logs. We can put this crib down, and there would be logs here.

Q.—Where do you mean when you say, here?

A.—In front of crib No. 3.

20 Q.—You say there might be logs in front of crib No. 3, and you can put crib No. 5 down on the logs?

A.—Yes.

Q.—Therefore, your crib No. 5 may be resting on logs for all you know?

A.—That is, the front of the crib, would go down, but the back side of the crib, two pockets of the crib were out.

Q.—What do you mean by out?

A.—The front face upstream of the crib is built to go down to the bottom. The downstream end of the crib No. 5 was left
30 according to the obstructions that were there.

Q.—Were there any obstructions there?

A.—Yes.

Q.—You remember that??

A.—Yes.

Q.—You did not tell me that. What were they? Logs or stones?

A.—They felt like logs, because we could not see them. We could feel them.

40 Q.—You now tell me that were logs somewhere in the depth of the water that you could not see, along the face of crib No. 3, and that you built your crib No. 5 to go over them?

A.—Yes.

Q.—Were there any logs opposite crib No. 1?

A.—Yes.

Q.—Were there any logs opposite crib No. 2?

A.—Yes, there were.

Q.—Were there logs opposite crib No. 4?

A.—Yes.

A. L'HEREUX (for Plaintiff in Rebuttal) Re-cross-examination

Q.—You noticed, when the jam came, the space between crib No. 4 was open, the water was running freely through it?

A.—Yes.

10 Q.—That was open, and you say that all the same there were logs there?

A.—Before the crib was in?

Q.—No, after.

A.—After the crib was in?

Q.—After the crib was in, there were logs on No.4 also?

A.—That is, before we put the sheeting in there.

Q.—You are sure of that?

A.—Yes. That is why we put sheeting out here.

20 Q.—Because your sheeting is much further away from the cribs opposite No. 4 than anywhere else, is that right?

A.—Yes.

Q.—And therefore, you say there would be many more logs opposite crib No. 4 than anywhere else?

A.—That is why we put it up far enough to clear the logs.

Q.—And you say these logs were caught into the crib?

A.—Yes. We tried to hook them out.

Q.—You swear you tried to hook them out?

A.—Yes.

Q.—And you swear you could not.

A.—No.

30 Q.—And they were the only logs that could have been caught while the cribs were not filled up with stones?

A.—No, not necessarily that.

Q.—You take that back also?

Mr. St. Laurent:—He is not taking anything back.

By Mr. Geoffrion:—

40 Q.—Do you mean to say now that when a crib is filled with stones, a log can be caught in it, floating down the river, so a derrick can pull it out?

A.—There are places where we had two and three courses of timber below the flooring.

Q.—You put your flooring two and three courses up?

A.—It depends on the slope, on the bottom of the river. The floorings were level.

Q.—Why?

A.—One corner might have been up higher, a difference

A. L'HEREUX (for Plaintiff in Rebuttal) Re-cross-examination

of two or three feet, so we had to put the flooring at an elevation of the high point.

Q.—Who told you to put the floor level and leave an open space below?

10 A.—It cannot be done otherwise.

Q.—Why cannot it be done?

A.—Because you should put your floor between the timbers.

Q.—Why could you not put it from one floor to the other?

A.—It is not practical. It is not the way to do it.

Q.—Have you ever done it before?

A.—It should not be done.

Q.—Why should it not be done?

20 A.—It is almost impossible to hold there. The way of doing that is to put the flooring in one place. It answered the purpose at Grand Mere for 900 feet of cofferdam.

Q.—It did not answer the purpose here then?

A.—It did. It stopped the water here.

Q.—It caught the logs?

A.—At Grand Mere, we had no logs. Here we had logs.

Q.—At all events, you tell me that you left an open space below?

A.—In places.

Q.—At which crib was that?

30 A.—I cannot remember exactly what particular crib it is.

Q.—Was the level of the river very irregular?

A.—Yes, it was. There was no place where the river was level.

Q.—But you cannot tell us where it is, that there was an open space below?

A.—There is more or less.

40 Q.—Therefore, there are two places that you say logs might have been caught in before you filled your cribs, and you also suggest now that logs might have been caught in the spaces below the flooring, is that right?

A.—Yes.

Q.—Are those the only two places you can think of now. I don't want you to forget any this time.

A.—Yes.

Q.—And you cannot tell us at which crib that is the case?

A.—It was more or less at every crib.

Q.—And there was more at crib No. 4 and No. 2, because your sheeting is much further away?

H. LINDSKOG (for Plaintiff in Rebuttal) Examination in chief

A.—Well, that sheeting was put up further away.

Q.—Was there more at crib No. 4 and crib No. 2, or is there another reason why the sheeting is far away?

A.—There is no other reason according to me for the
10 sheeting to be further away.

Q.—And No. 2, of course, is the one which tilted as soon as you placed it there?

A.—Yes.

Q.—And No. 4 was put after the rush of logs in July?

A.—Well, according to numbers, if you will please let me
have the plan.

Q.—No. 4 was put after the rush of logs?

A.—Yes.

20 And further deponent saith not.

DEPOSITION OF HARRY LINDSKOG

A witness produced on behalf of the Plaintiff in Rebuttal.

On this fourteenth day of March, in the year of Our Lord,
one thousand nine hundred and thirty-three, personally came and
30 appeared Harry Lindskog, Construction Superintendent, a witness
already examined, now recalled on the Plaintiff in Rebuttal,
who being duly sworn, doth depose and say as follows:

Examined by Mr. St. Laurent, K. C., of Counsel for
Plaintiff:—

Q.—You have already been heard in this case?

A.—Yes.

Q.—It has been brought out in evidence that there was a
40 rock spoil bank placed upstream from the line of the dam?

A.—Yes.

Q.—Is that correct?

A.—That is correct.

Q.—Where was it placed upstream from the line of the
dam ?

A.—We were not allowed to place any of our spoils below
the dam.

Q.—Why? Were you told the reason?

A.—I was ordered by Mr. O'Shea where to place it.

H. LINDSKOG (for Plaintiff in Rebuttal) Examination in chief

Q.—Were you told the reason for not putting it downstream from the dam?

A.—It would look ugly.

Q.—And why would it not look ugly upstream

10 A.—It was covered with water?

Q.—Did you have a rock spoil bank upstream from the dam at any point which is shown on this exhibit P-110?

A.—That mark in red corresponds very closely to where we had our rock spoil bank.

Q.—On the plan P-110 it is indicated by the place marked with a red circle?

A.—Yes.

Q.—Where was your derrick?

20 A.—Facing the by-pass. One sill would be nearly parallel with the line of the dam and the other sill would be roughly parallel with the by-pass.

Q.—How was that derrick supported, or how many legs are there to the derrick?

A.—It is a stiff leg derrick. It is in the form of two triangles joined by a mast.

Q.—Two triangles joined at the summit?

A.—Yes.

Q.—And that would give you four legs?

30 A.—No.

That gives you three legs. There are two triangles and the mast forms the common side of both triangles.

Q.—Do these legs determine what area the mast can swing in?

A.—Yes, correct.

Q.—Do you remember how that derrick was placed, and how far towards the stream the mast could swing the rock?

40 A.—Just roughly; as I stated here, one leg was at a slight angle with the line of the dam. They would be at right angles to that leg, so the best they could do was to reach hardly the center of that dump.

Q.—The best they could do would to reach hardly the center of the dump shown by the solid red?

A.—It would not probably reach the solid red.

Q.—You say it would not be possible to swing it out further than towards the main channel of the stream?

A.—It would not be possible.

H. LINDSKOG (for Plaintiff in Rebuttal) Examination in chief

Q.—Something was said about a car going over the side of the crib. Do you remember anything about that?

A.—I remember now, hearing the evidence. I guess that is right. We had small rock cars there that we brought the wheels
10 and axles in, and then we built a wooden platform on top of that, and I guess it is right. I know I heard something about it, that a car dumped off and went into the drink.

Q.—What was that car being used for?

A.—That was used to load down the brush and stuff.

Q.—And you are showing on P-37 the portion of the sheeting which shows an irregular rectangle that is indicated by the letters B-D?

A.—Yes.

Q.—What were you loading down this brush with?

A.—Our brush was any long, big rope, or bundles, whatever you like to call it, and we wired that, wired rock on it, but
20 that would not hold it down to keep it in place against the bottom of the sheeting. We pile a certain amount of rock on there, a little bit of rock to be sure to hold it in place where it was supposed to be.

Q.—And having this rock conveyed on this car when it went over?

A.—Yes, that is what I would say.

Q.—Do you remember the placing of boulders, in connection with locating crib No. 4?

A.—Yes.

Q.—Under whose instructions was that done?

Q.—Why was that?

A.—Under my instructions.

A.—We had a very fast water. In fact, the water dropped about two or three feet in the distance from the upstream to the downstream face of the crib, a distance of say, thirty feet, something like that, and she was very fast, and that was the closing
40 crib. That would be the hardest crib to place. We did not want to take any chance of having it to through or get away from us, and we wanted to flatten out the water a little more.

Q.—You wanted to flatten out the water before attempting to move your pier into that place?

A.—Yes, because there was quite a drop, and as a safety measure, supposing something had broken or went wrong, well, I figured at the time she would land up against these rocks and help hold her.

Q.—What size did you put in there?

A.—Various sizes, half a yard ; maybe a yard.

H. LINDSKOG (for Plaintiff in Rebuttal) Examination in chief

Q.—How were they placed?

A.—With the derrick. We had pretty good control of her ; we dropped them down with a fall line, and when they were on the bottom we had a rope and undid the slip hook from the chain.

10 Q.—When the cofferdam was unwatered, do you remember seeing the bottom of these cribs?

A.—Yes.

Q.—Was it possible at any time for a man to walk under any one of the cribs?

A.—No.

Q.—Was it possible to get in between any of these cribs?

A.—I don't think so, but there might have been between cribs, between the south shore and No. 4 you might have squeezed 20 in. I doubt it.

Q.—What distance?

A.—I don't think very far.

Q.—Do you remember the first big blast that was set off on the island, the one that damaged the bridge?

A.—I would like to take exception to that word "big" blast.

Q.—I may have been influenced by the evidence that has already been given about it?

A.—What is called a big blast, was the first shot we put 30 on the island.

Q.—How much did that loosen up?

A.—It loosened up about two hundred yards, or 250 yards may be.

Q.—And how much did you glance off the island altogether?

A.—Some 3,000 yards.

Q.—How did it come to damage the bridge?

A.—The bridge was of course, on this rock — the bridge, 40 first of all, would have to come down sooner or later, and the shot was very close to the anchor of this bridge. It was not our intention to shoot the bridge down, but nobody would feel very bad if the thing did go down, because it was important that we start shooting off the rock on this island, and get the north shore crib filled, and then, the idea was to put a suspension bridge from the south abuttment to the north abuttment.

Q.—And, as a matter of fact, that suspension bridge from the south abuttment to the north abuttment, was placed as in one of the photographs of the 20th April 1929, exhibit D-25?

A.—Yes.

H. LINDSKOG (for Plaintiff in Rebuttal) Examination in chief

Q.—The bridge which is shown on exhibit D-25, is the new bridge that was placed on the two shore abutments?

A.—Yes.

10 Q.—Sometime after the first suspension bridge had been damaged by the blast?

A.—Yes.

Q.—Was communication with the island interrupted by the breaking of this suspension bridge?

A.—No. We had our cable way, and we went across back and forth on the cable way, and as soon as the bridge was damaged, my carpenter foreman, Mr. L'Hereux threw a pontoon bridge across on timbers. We used that till we erected this other bridge that is shown on D-25.

20 Q.—At what time of the day or night was this first blast set off?

A.—It was set off during the nighttime, and I would say it would be set off between twelve and one o'clock dinner hour for the night shift.

Q.—Do you remember the direction of the current above the place where the cofferdams were put?

A.—I know that there was a big eddy on the north shore, and a smaller eddy on the south shore.

30 Q.—How would the directions shown by the yellow lines with an arrow head on P-110, compare with your recollection of the current there before the cofferdam was built?

A.—That is my recollection. There was a big eddy here.

Q.—A big eddy over towards the north shore?

A.—A big eddy over towards the north shore.

Q.—And a smaller one towards the south shore?

A.—Yes.

Q.—Could that current, in your opinion, in any way move any of this rock in the spoil bank, into the cofferdam area?

A.—No.

40 Q.—Could any rock from your operations get into the cofferdam area?

A.—No, unless we went to extra work and deliberately put it there.

Mr. Geoffrion:—I have no cross-examination.

And further deponent saith not.

J. L. ALLISON (recalled for Plaintiff in Rebuttal)
Examination in chief.

DEPOSITION OF JOHN L. ALLISON (*recalled*)

A witness recalled on behalf of the Plaintiff in Rebuttal.

10

On this fourteenth day of March, in the year of Our Lord one thousand nine hundred and thirty three personally came and reappeared John L. Allison already sworn, who, being recalled on behalf of the Plaintiff in rebuttal, deposes as follows:—

Examined by Mr. St. Laurent, K.C., of counsel for Plaintiff.

20

Q.—You gave testimony in this case on Saturday morn-

A.—Yes.

Q.—Have you since then prepared a calculation showing the speed of the current at Cedar under the various conditions brought about by the placing of the several cribs and at various places in the stream?

A.—Yes.

Mr. Geoffrion:—What is this in rebuttal of?

30

Mr. St. Laurent:—Mr. Kenny's statement that the velocity of the current was from one to four miles an hour.

By Mr. St. Laurent, continuing,—

Q.—You show me your original calculations, and on the last sheet thereof I see, on the date of Mr. Stratton's investigation in October, you have worked out the speed of the current to be 2.6 miles per hour?

40

A.—Yes.

Perhaps I should explain that Mr. Stratton said about the middle of October. I took the average of the 15th, 16th and 17th October as the flow. It did not vary very much.

Q.—You took the average of those three days, and it worked out at 2.6 miles per hour?

A.—Yes.

Q.—You find that on May 5th, 1929, with the shore abutments in, it works out at 6.12 miles per hour?

J. L. ALLISON (recalled for Plaintiff in Rebuttal)
Examination in chief.

A.—Yes. That also is the high water of that particular year.

10 Q.—At the date of the sinking of the first crib, June 15th, 1929, it works out at 3.27 miles per hour?

A.—Yes.

Q.—And, on the date of the sinking of the second crib, July 16th, 1929, it works out at 4.64 miles per hour?

A.—Yes.

Q.—Is the increase due to the restriction in the space brought about by putting in crib No. 2?

A.—Yes.

20 Q.—On July 22nd, with crib No. 3 obstructing, it rises to 5.19 miles per hour?

A.—That is the date crib No. 3 was going in, but it represents the speed before that crib got into place — just as the crib was approaching the upstream line of the cofferdam.

Q.—As the crib approached the upstream line of the cofferdam your calculation, as worked out, shows the speed of the current to be 5.19 miles per hour?

A.—Yes.

30 Q.—Then you have “date sinking No. 4 or closing crib” August 3rd, 1929 ; 8.55 miles per hour?

A.—Yes.

Q.—Is that just as crib No. 4 approached the closing place?

A.—Yes, just on the line of the upstream face of the cofferdam.

Q.—Those sheets you have shown me, and from which I have read the figures, are your original pencil notes containing your calculations, and the explanation thereof?

A.—Yes.

40 Mr. St. Laurent:—I do not think these notes and calculations need be filed, but I will hand them to my learned friend and if wishes to file them he may do so.

Witness:—There is one thing I think I had perhaps better explain. I said the high water of that year. That is the date of the high flow as I got it from the Department of the Interior. According to the diagram showing the actual heights of the water in the river, the high water was on the 9th, but I took the extreme flow as applying to the extreme elevation, although it did not occur on the same dates.

J. L. ALLISON (recalled for Plaintiff in Rebuttal) Cross-exam.

By Mr. St. Laurent, continuing,—

Q.—You took the extreme flow as shown by the public records?

10 A.—Yes.

Q.—And, that was on May 5th?

A.—Yes.

Q.—Whereas on the chart we have here the highest elevation would appear to be on May 9th?

A.—Yes.

Q.—But, you made your calculation on the flow that existed on May 5th?

A.—Yes.

20 Q.—So, there might be some slight variation if you used the flow of the 9th?

A.—Yes.

Q.—Are those figures the exact result arrived at the theoretical calculation?

A.—Yes.

Q.—Are there, in fact, causes which might take one part of the flow more rapid than another part through the same section?

A.—Yes.

30 Q.—To what extent does the most rapid portion exceed the average worked out by the theoretical calculation?

A.—I do not know that I can say any particular figure. Perhaps 10%.

Q.—But this is the body of water moving through?

A.—Moving just on the upstream line of the cofferdam. Between the coffers it would be much higher than that, because the surface would drop, and the sides would contract, so you would have a much higher velocity than shown on the outside edge of the cofferdam.

40 Cross-examined by Mr. Geoffrion, K.C., of counsel for Defendant.

Q.—You took the section of the river, I suppose?

A.—Yes.

Q.—And you measured the quantity of water?

A.—I did not measure the quantity. I got it from the Department of the Interior. I got it from the Waterpower Branch of the Department of Interior, on Inspector Street.

J. L. ALLISON (recalled for Plaintiff in Rebuttal) Cross-exam.

Q.—You got the recorded flow of the river from the public records, and you took the section of the river where the cofferdams were, and that is the way you got the speed on a given date?

10 A.—Yes.

Q.—You said you calculated 2.6 miles at the speed when Mr. Stratton took his soundings?

A.—Yes. That is the average speed over the whole section.

Q.—I take it the difference in speed at various part is not calculable?

A.—No.

Q.—Your figure of 10% is an estimate, approaching a guess, more than anything else?

20 A.—I do not know whether if you took a lot of trouble to got at it you might get something closer. I did not do it, however, and that was the best answer I could give at the time.

Q.—At high water the shore abutments were in. Would they make much difference in the high water?

A.—Yes, quite a lot. You mean in the stage of the water?

Counsel:—Yes.

A.—It would make some difference.

Q.—I would suppose the shore abutments would make a bigger obstruction when the water is very high, because then the water is at the height of the shore abutments?

30 A.—Yes. With high water the effect of the abutments would be at the maximum.

Q.—The shore abutments are in water at that time?

A.—Yes.

Q.—Whereas they are out of the water at low water?

A.—Yes, I think they would be nearly all out.

Q.—When you come to June 15th, date of sinking No. 1 crib, was that just before sinking it?

40 A.—That velocity is the velocity over the whole section between the two abutments.

Q.—Just before sinking the crib?

A.—Just before the crib coming into it.

Q.—In other words, the crib does not yet play a part in this calculation?

A.—No.

Q.—Then, when we come to July 16th, the date of sinking No. 2 crib, the same remark applies. The only crib that plays a part then in obstructing the flow would be No. 1 crib, and the shore abutments?

A.—Yes.

J. L. ALLISON (recalled for Plaintiff in Rebuttal) Cross-exam.

Q.—And, so on with No. 3, for instance?

A.—Yes.

10 Q.—Let us now take after the sinking of crib No. 1, when
you come to ascertain the flow on the date of the sinking of No.
2 : you would decrease the natural cross-section of the river by
subtracting the three obstructions — the two abutments, and crib
No. 1 ?

A.—Yes.

Q.—Where did you take the volume of the river?

A.—The line of the cofferdams.

Q.—I mean from the public records. At what place did
you take those volumes?

20 A.—The records give the flow at Mont Laurier and at
Poupart ; and in addition to getting the records of the flow I
got the watersheds at Mont Laurier, Poupart, and at Cedar. That
is explained in the calculations.

The watershed at Cedar is slightly greater than the mean
of the watersheds at Mont Laurier and Poupart, so in getting the
flow of Cedar I took the mean of the flows of Mont Laurier and
Poupart, and I multiplied by the 1,035, in the same proportion
as the watersheds.

30 Q.—Do the Government Records give the watershed of
Cedar ?

A.—Yes.

Q.—They give the three watersheds, and the three spots,
but they give the flow only at two?

A.—Yes.

By Mr. St. Laurent:—

40 Q.—The explanation of your method of making the calcul-
ation is in this document now before us at which both my learned
friend and I have looked ?

A.—Yes.

Mr. St. Laurent:—I do not think we need file these calcul-
ations. I do not know if anyone wishes to check them.

Mr. Geoffrion:—In any event, if we went to check them
they will be available.

J. C. REIFFENSTEIN (recalled for Plaintiff in Rebuttal)
Examination in chief.

Mr. St. Laurent:—Yes, certainly.

Mr. St. Laurent:—

10 Q.—Your document will be available at any time if we wish to check the calculations?

A.—Yes.

And further deponent saith not.

20 DEPOSITION OF JOHN C. REIFFENSTEIN (*recalled*)

A witness reappearing on behalf of Plaintiff in Rebuttal.

On this fourteenth day of March, in the year of Our Lord, one thousand nine hundred and thirty-three personally came and appeared John C. Reiffenstein, already sworn and examined on behalf of the Plaintiff in Rebuttal, who, being recalled, deposes as follows:

30 By Mr. Geoffrion, K. C.:—

Q.—You were asked this morning to ascertain whether there was any entry in your notebooks of the levels shown on Exhibit P-95. Have you found anything in your notebooks about those levels?

A.—I did not find any notes in the book which I could apply to any specific date. Those particular notes were not dated.

Q.—Do you find any apply to those levels?

A.—Yes.

40 Q.—But, you cannot give the dates?

A.—I cannot give the exact dates, no.

And further deponent saith not.

W. I. BISHOP (for Plaintiff in Rebuttal) Examination in chief

DEPOSITION OF WILLIAM I. BISHOP

A witness examined on behalf of the Plaintiff in rebuttal.

10 On this fourteenth day of March, in the year of Our Lord one thousand nine hundred and thirty three personally came and appeared William I. Bishop already sworn, who being now called as a witness on behalf of the Plaintiff in rebuttal, deposes as follows:—

Examined by Mr. St. Laurent, K.C., of counsel for Plaintiff.

20 Q.—You are President of the Bishop Construction Company?

A.—Yes.

Q.—You have already given testimony in this case?

A.—Yes.

Q.—When Mr. O'Shea was heard as a witness for the Defence with respect to the claim for the lower cofferdam on the by-pass, I understood him to make the statement that your Exhibit P-24 showed that you intended to take up to June 10th to pour the concrete in that by-pass section.

A.—In the Stony Sluice section, yes.

30 Q.—How much of that concrete would it have been necessary to pour to get above the elevation that could be affected by the back flow of the river had there been no cofferdam at the lower end of the by-pass?

A.—The amount of concrete required to be placed before we could divert the river through the by-pass would have been approximately 1500 cubic yards.

Q.—How much of the horizontal line on Exhibit P-24 would 1500 cubic yards represent?

40 A.—Starting from the date given for commencing concrete at that point, April 15th, it would not have taken us beyond the first of May, 1929.

Q.—And, that would be at the same proportionate rate as the whole line extends from April 15th to June 10th

A.—Yes. That is allowing 15 days to do 1500 yards. Of course, starting work is a good deal slower than the rest of the job.

Q.—A Mr. Boyd was examined as a witness here, and he stated in re-examination that he had been offered a job at Cedar by you. Do you know Mr. Boyd?

W. I. BISHOP (for Plaintiff in Rebuttal) Examination in chief

A.—I had seen him only once. I did not remember him at all when I saw him here in Court.

Q.—Where had you seen him once?

10 A.—I remembered afterwards that he had come to the office applying for work.

Q.—Had you sent for him?

A.—No.

Q.—He told us he had been sent to you by a Mr. Morgan. Do you know Mr. Morgan, or do you know anything about him?

A.—No, I have not the least idea who Mr. Morgan would be.

Q.—Did you, in fact, offer Mr. Boyd a job at that interview?

20 A.—I did not. I had already made arrangements for Mr. Lindskog to go up there, so I was not at all likely to have engaged two men for the same job.

Q.—What was the main item of your plant installation for this job at Cedar?

A.—The main item of plant controlling the job from one end to the other was the cableway.

Q.—Just what was the cableway?

30 A.—A cableway is a very heavy cable strung from shore to shore. In this case it was a span of about 900 feet: on which we handled materials at a fairly rapid rate, weighing up to five tons. It runs from one end to the other.

Q.—A sort of aerial railway?

A.—That is what it is, in effect.

Q.—How did the rest of the plant you installed fit in with the use of this cableway?

Mr. Geoffrion:—How does this come in as rebuttal?

40 Mr. St. Laurent:—It is in reply to your contention that the equipment supplied for the job was not the proper equipment.

Witness:—A small proportion of the excavation was taken out by the use of the cableway, supplemented by travelling and fixed derricks; and a large proportion of the concrete was handled by bottom dumping concrete buckets, handled by the cableway.

Q.—In what condition were the roads from Gracefield to Cedar in the autumn of 1928, with regard to the possibility of bringing a steam-shovel in over them?

W. I. BISHOP (for Plaintiff in Rebuttal) Examination in chief

A.—They were absolutely impassable for that purpose: the roads, and the bridges particularly.

Q.—Was anything done to them between the autumn of 1928 and the following autumn?

10 A.—Yes. Between the commencement of work and the middle of January we expended a large amount of money in fixing the road, and building new bridges, and strengthening others. That did not come into effect until the first week of January, 1929.

Q.—Was that done before, or after, Mr. Carneil brought a shovel in for another job?

A.—Carneil did not come in until some time late the next fall. They came in over our road from Gracefield.

20 Q.—From your experience can you tell us whether or not it is practicable to handle hardpan with a steam-shovel, without blasting?

A.—I would not consider it commercially practicable.

Q.—Why not?

A.—In the first place, it will be too hard on the shovel itself; and, secondly, you would make very little progress.

Q.—And, if it were to be attempted what size steam-shovel would it require?

30 Witness:—Without blasting?

Counsel:—Yes.

A.—It would have to be a very enormous shovel to tackle hardpan without blasting.

Q.—Would the kind of steam-shovel Carneil brought in be appropriate to handle hardpan without blasting.

A.—Decidedly not: because, I understand, that was only $\frac{5}{8}$ yard shovel, which is a very small shovel — almost the smallest size.

40 Q.—It has been stated, by Mr. Chadwick, and Mr. Kenny, I think, that a steam-shovel could have been brought in at a cost of from a couple of hundred dollars to \$500. Have you made any calculation as to what would have been the cost of installing a steam-shovel at Cedar— the kind of steam-shovel that it would be at all appropriate to attempt to use on hardpan?

A.—I have made an estimate of the cost of bringing in what you might call a medium size shovel — a one and three quarter yard shovel — and four dump trucks to handle the material excavated by the shovel.

W. I. BISHOP (for Plaintiff in Rebuttal) Examination in chief

Q.—And, at what figure did you arrive?

A.—The figure I arrived at, for the freight, transportation, and plant rental, is \$10,540, if brought in from Gracefield. If we tried to bring it in from Buckingham, partly by
10 soow and partly by road, we would have to add \$1725 — making \$12,265.

That is just the freight, handling, and rental. It does not include maintenance, renewals, and operation. I figure that even with that shovel drilling and blasting would still have been required.

Q.—Will you file the calculation you have made, as Plaintiffs' Exhibit P-114 — consisting of two sheets?

20 A.—Yes.

Q.—How does the quantity of fuel required to operate a steam-shovel compare with the quantity required to operate a travelling derrick and an orange-peel such as you did install?

A.—The steam-shovel would have required a very much larger quantity of coal. As a matter of fact the estimate I have made is based on the use of a gasoline shovel.

Q.—How would the cost of the fuel for that kind of a steam-shovel compare with the cost of the fuel for a derrick and orange-peel?

30 A.—I have not figured it out, and I would not like to say definitely offhand. It would probably be several times greater.

Q.—Have you been able to determine from your calculations how the cost of excavating this material that we claim was hardpan which was made with the use of a steam-shovel would compare with the actual cost of handling it with the material you had on hand and used?

40 A.—I have not figured out the cost of what we actually handled, but I have made an estimate of what it would have cost to take out the 12,395 cubic yards of hardpan.

Q.—Will you file this estimate as Exhibit P-115?

A.—Yes.

Q.—This works out at \$2.85 per cubic yard?

A.—\$2.85, if brought in by Gracefield; and \$3.03, if brought in by Buckingham.

Q.—Whereas the charge you are claiming in Paragraph 9 of your Declaration is \$2.90?

A.—Yes. It happens to come out fairly close to the figures I have just given.

W. I. BISHOP (for Plaintiff in Rebuttal) Cross-examination.
N. J. KAYSER (for Plaintiff in Rebuttal) Examination in chief

Q.—Have you provided in this estimate of \$2.85 for the use of blasts to shake up the material before attacking it with the shovel?

10 A.—Yes.

Q.—And, you consider that would have been necessary?

A.—It would have been absolutely necessary, with that size of shovel at least.

Q.—And, would that be so whether it was done in summer season or in winter season?

A.—Either.

Cross-examined by Mr. Geoffrion, K. C., of Counsel for Defendant:—

20 Q.—I think you said you did not figure what your cost had been with your orange-peel, so you cannot compare the costs?

A.—No, sir, I have not figured that out.

Q.—You figured what it would cost in rental, and transportation, to bring in an orange-peel and derrick?

A.—I was obliged to bring the derrick in in any case, for other purposes. The travelling derrick was not brought in only for the excavation of the by-pass.

30 And further deponent saith not.

DEPOSITION OF NICHOLAS J. KAYSER

A witness examined on behalf of Plaintiff in Rebuttal.

40 On this fourteenth day of March, in the year of Our Lord, one thousand nine hundred and thirty-three, personally came and appeared Nicholas J. Kayser, of the City and District of Montreal, Engineer, aged 47 years, a witness produced and examined on behalf of the Plaintiffs in Rebuttal, who, being duly sworn, deposes as follows:

Examined by Mr. St. Laurent, K. C. of Counsel for Plaintiff:—

N. J. KAYSER (for Plaintiff in Rebuttal) Examination in chief

Q.—You are an engineer by profession?

A.—Yes.

Q.—Are you connected with any of the contracting firms of the Province?

10 A.—The Fraser-Brace Company.

Q.—How long have you been with that firm?

A.—Twenty two years.

Q.—Have you been with them since you commenced practicing your profession, or had you any experience before going to them?

A.—I came to them practically from College.

Q.—At the present time in what capacity are you connected with the Fraser Brace Company?

20 A.—General Superintendent, and Director of some of the Companies.

Q.—What is the nature of the work done by the Fraser-Brace Company?

A.—Heavy construction ; hydro-electric plants, dams, powerhouses, and so on.

Q.—How much of that work has the Company done since you have been connected with it in an administrative capacity?

A.—I suppose fifteen jobs, or more.

Q.—Of what magnitude?

30 A.—Some of the biggest.

Q.—Some of the biggest jobs done in Canada?

A.—Yes.

Q.—And, the firm has been doing big jobs of that character for several years?

A.—Yes.

Q.—And, is still?

A.—Yes.

Q.—You know the sort of job this Cedar Rapids storage dam amounted to?

40 A.—Yes.

Q.—How would it compare with what you call big jobs?

A.—It is small by comparison.

Q.—Have you looked over the description of the plant and equipment provided by the Bishop Construction Company for handling the Cedar Rapid job?

Mr. Geoffrion:—Did not Mr. Acres testify to that?

Mr. St. Laurent:—I do not think so. If he did it escaped

N. J. KAYSER (for Plaintiff in Rebuttal) Examination in chief

us, because we intended to keep away from it. The Defence pleaded the plant was inadequate, and we now want to answer that.

Witness:—Yes, I have.

10

By Mr. St. Laurent, continuing:—

Q.—From your own experience, what would you say as to the adequacy, or otherwise, and the suitability of that plant for the work in question?

Mr. Geoffrion:—I think Mr. Acres was examined in regard to that.

20

Mr. St. Laurent:—All he said was that he saw the plant on the occasion of his visit, and that it was functioning normally. The Plea is special that we failed to supply suitable and adequate plant to handle the job; and it is on that I am now making evidence.

Witness:—My opinion would be it was suitable and adequate.

30

By Mr. St. Laurent, continuing:—

Q.—Have you had any experience in handling hardpan excavation?

A.—Yes.

Q.—Will you tell His Lordship whether or not it is practicable to attempt to handle hardpan with a steam-shovel, without the use of explosives?

A.—It may be done, but in my experience I have never been able to do it, and we have had heavy equipment. On one occasion we had a 70 ton shovel trying to dig hardpan, and we did not succeed without blasting. It could dig away at it, and wear out the buckets, and get some out, but it was not an efficient operation at all.

40

Q.—And, you found it more practical to shake the material up by the use of explosives?

A.—We found it more advantageous to spend the 50 cents a yard it cost to shoot it, rather than do it without shooting.

Q.—In your experience is 50 cents a yard about what it costs to shoot this material?

A.—About that.

N. J. KAYSER (for Plaintiff in Rebuttal) Examination in chief

Q.—What would be the minimum size of shovel that one would use in handling hardpan?

Witness:—Do you mean myself, personally?

10

Counsel:—Yes.

A.—I would get the biggest shovel I could, because I have not yet seen one that will do it.

Q.—Would you attempt to handle hardpan with a shovel with under a one yard bucket?

A.—No.

Q.—What size bucket does a 70 ton shovel carry?

A.—About two and a half yards.

20 Q.—And even that you did not find to be practicable in handling hardpan, without blasting?

A.—No : it was not working efficiently.

Q.—Were you here when Professor Mailhiot gave his testimony?

A.—Yes.

Q.—Would you consider it practicable to try to handle the kind of material he described, with a steam-shovel, without shooting?

A.—No, I think it would have to be shot.

30 Q.—How is the space in cribs that are used for coffer-damming distributed or divided?

A.—Into pockets, I suppose you mean. Cribs are usually built in the form of pockets. Depending on the ideas of the coffer-dam man, they vary from six to eight or nine feet square.

Q.—Is any flooring placed in any or all of those pockets?

A.—No. In fact it can be likened to a checkerboard : the red plots would be the floors, and the white plots would be the empty cribs.

40 Q.—So, you have alternate floored space, and an empty pockets?

A.—That is right.

Q.—Where is the flooring placed, with respect to the bottom of the crib?

A.—It varies somewhat with the ideas of the builder, but it is usually between three and six feet from the bottom. Some of them have to be very high, depending on the strength you require. If it is a high crib, they will raise them up higher in order to make the binding logs do their work, so that they will hold it down.

N. J. KAYSER (for Plaintiff in Rebuttal) Examination in chief

Q.—What would you consider good practice for cribs to be used in the position in which those cribs were used at Cedar?

A.—From the evidence, and other things that were said, I understood they were about twenty feet. I would put them up
10 about four feet.

Q.—About four feet from the actual bottom?

A.—Yes. Sometimes they have to go there anyway, or higher, on account of the contour of the bottom. They must be level.

Q.—Have you had any experience in superintending the placing of cribs in streams?

A.—Yes.

Q.—What happens as you narrow the section?

A.—The velocity of the water increases.

20 Q.—How close is it practicable to fit those cribs together in streams where the velocity of the water would be from two to eight and a half miles an hour as you progress with the work?

A.—It depends somewhat on the cofferdam man. Sometimes he likes to leave himself quite a little leeway, so that he will not get caught, and if the crib twists a little going down he will get it in anyway. They usually leave some leeway.

30 Q.—From what you have heard about the placing of the cribs, following the evidence in this case, what criticism would you offer of the manner in which it was done?

Mr. Geoffrion:—I object to this, as not being proper rebuttal. All the witness has said so far is that he has read the evidence, and he is satisfied from it as to the way things were done.

Mr. St. Laurent:—I will withdraw the question.

By Mr. St. Laurent, continuing:—

40 Q.—If it should appear that the cribs were placed, with respect to the lateral distance between them, as shown on the plan Exhibit D-39, and were thus placed in the order shown on Exhibit P-37, what opinion would you express as to whether they were or were not sufficiently close together?

A.—I would not say they might not have been placed a little closer together, but I would not say they were wrong being placed the way they are, or that they would not function as a cofferdam the way they are.

Q.—What have you to say with respect to the necessity or otherwise of the cribs being closely fitted to the bottom?

N. J. KAYSER (for Plaintiff in Rebuttal) Examination in chief

10 A.—It is desirable to have the bottom timbers fit the bottom. It is desirable, but it is not very often obtained. It is the desire of every cofferdam man to do so, but they seldom do it. Sometimes they do, but it is luck rather than anything else that gets them there. It is not disastrous if they do not.

I have known occasions where we have had a crib up four feet from the bottom, and it was stuck there. We did not intend it to go there either, but the cables broke, and it got jammed at an elevation about four feet above the bottom of the river. We used 8 x 16 sheathing, and put an outrigger at the top.....

Q.—(interrupting) What is an outrigger?

20 A.—It is something to support it from going forward on the top. Then we put those more or less poling boards down, and they effectively shut off the water. We were unable to get any diver near the place, so we had to do the best we could.

It made a tight job.

Q.—What head had you against it?

A.—About 35 feet.

Q.—How did you put in those 8 x 16's ? In what directions was the eight inch surface with respect to the current?

A.—The eight inch way was opposed to the current.

Q.—What is the function of the sheathing in a cofferdam?

A.—To close up the face of the crib, and make it watertight.

30 Q.—In practice what use, if any, is made of a diver in placing the sheathing?

A.—Where you want to have a tight fit to the bottom, you use a diver to handle the lower end of the sheathing, and sometimes he marks the end of the sheathing if there is an irregularity on the bottom greater than the width of the sheathing. Then the sheathing is taken up, and cut, and he takes it down and nails it at the bottom.

40 Q.—In practice does it happen at any time that you have to do your sheathing without the aid of a diver?

A.—Yes. In swift water, or if you have an opening under your crib (as you many times do) or there is constant danger of a blow. If you have a soft bottom, and if there is any indication of blow, you would be afraid to put your diver into it, and you would have to go head and sheath it. In that case, you could not use a light sheathing : you would use heavier sheathing. Quite often you dump some stone ahead, and then finer stone on top of that, and make, to all intents and purposes, a rock fill dam, which is often used to block rivers.

N. J. KAYSER (for Plaintiff in Rebuttal) Examination in chief

Q.—In what kind of water is it customary to use Wakefield sheathing six inches thick?

10 A.—As a matter of fact, I have not used Wakefield sheathing in connection with cofferdams, but that does not mean to say it is worse, or better. Wakefield sheathing is good sheathing, but I have used it for other purposes, where I have driven it through a toe fill, or something of that sort. I never used it to nail on a cofferdam, because we have always sheathed the face, and there I think other sheathing is generally used. Wakefield sheathing is used where you have an unsupported length. It is a special affair, used in special cases.

20 Q.—I will ask you to assume that steel sheet piling was driven upstream of this cofferdam, along the line shown on Exhibit P-37 with the words “Steel Sheet Piling”. Can you tell me from your experience whether or not it would have been possible to drive that steel sheet piling through had the toe of a rock spoil bank extended out to where it was driven?

A.—You could not drive steel sheeting through a rock spoil bank.

Q.—If, in fact, steel sheet piling was driven along that line, what conclusion would you have to come to as to whether or not a rock spoil bank which was up on the north side extended down to that point?

30 A.—If the sheathing was driven down where the rock spoil bank was supposed to be, I would say there was not one there.

Q.—If the steel sheet piling went in, there could not have been any rock spoil bank there?

A.—Not unless it was crushed stone, or something more fine. You could drive it through crushed stone ; but, one man stone, it would be ridiculous.

40 Q.—Will you look at the photograph Exhibit D-14, said to have been taken on August 22nd, 1929 — and I call your attention to the flume and the portion of the bank which shows on the extreme right of the photograph. I ask you to assume the water was flowing since August 2nd, 1929. Would that enable you to express any opinion as to the character of the material composing that bank?

A.—Yes. I would say it is a cemented material.

Mr. Geoffrion:—I object to this evidence. My learned friend had to prove in chief, not in rebuttal, whether this was hardpan.

Mr. St. Laurent:—We did attempt to prove in chief that

N. J. KAYSER (for Plaintiff in Rebuttal) Cross-examination.

it was hardpan. My learned friend may be right there. I am afraid we will have to argue about the photographs ourselves.

I have no further questions to put to the witness.

10 Cross-examined by Mr. Geoffrion, K. C., of Counsel for Defendant:—

Q.—You never saw the Bishop plant?

A.—No.

Q.—You never saw the place, either?

A.—No, I did not.

Q.—Nor, of course, the work?

A.—No.

20 Q.—You told my learned friend Mr. St. Laurent of having tried to work hardpan with a steam-shovel?

A.—Yes.

Q.—Where was that?

A.—Cedars, Quebec : at the Montreal Light, Heat & Power plant.

Q.—What is your definition of hardpan?

A.—I would define it as sand, and gravel, with boulders, with a cementing material in it.

Q.—What would be the cementing material?

30 A.—It might be clay, it might be boulder clay, it might be iron oxide. I have seen all of those. They all have a tendency to cement.

Q.—You mentioned clay, boulder clay, and iron oxide ? Is there any name more understandable to the layman than “iron oxide” ? What is iron oxide ?

A.—Iron oxide is iron ore that has been oxidized by exposure to atmosphere.

Q.—Is boulder clay different from clay, or is it clay that contains boulders?

40 A.—They both have the same derivative, but ordinary red clay I would not call boulder clay.

Q.—Would ordinary red clay constitute an element of hardpan ?

A.—Yes, in some cases under pressure it makes a very good binding material.

Q.—What was the binding material at Cedars?

A.—That was red clay.

Q.—Is it very hard?

N. J. KAYSER (for Plaintiff in Rebuttal) Cross-examination.

A.—I think it is hard due to pressure. A macadam road is about the nearest thing to it. If you get a macadam road you are approximating hardpan in an artificial way.

10 Q.—Then what you treated as hardpan on your Cedars job was something like a macadam road?

A.—Yes, approximately.

Q.—Do you speak French?

A.—No.

Q.—Then, when you were asked to refer to Mr. Mailhiot's description of hardpan, it was translated to you?

A.—No, he gave his evidence in English.

20 Q.—What did he say that struck you as indicating it was hardpan? Was it the fact that he said it was hardpan, or is there anything else you have to rely on? Are you speaking merely from his testimony to the effect that he said it was hardpan? In other words, have you anything for it except the fact that he said it?

A.—No, that is all.

Q.—Let us now come to the cribs. You said in certain circumstances some crib builders would leave spaces between their cribs when they placed them. Would they fill those spaces before laying the sheathing?

A.—Yes, they would fill them with something.

30 Q.—How would they fill them?

A.—If they were only 2 feet wide, they might insert pieces in the shape of stops-logs. I have never done it myself, but I know it has been done — they have left wide openings, and dropped stop-logs in. Say you had an opening of 12 feet, you might drop stop-logs in front of it afterwards.

Q.—What would the stop-logs rest on?

A.—The same way as the stop-logs are put in the dam.

Q.—Making a sort of gate?

A.—Yes.

40 Q.—Then, you cannot lay your sheathing on the face of the cribs, because the stop-logs are in front of the cribs?

A.—No. They can only lap to the first log. Then you can pick up your sheathing beyond that. The guides of the stop-logs form the sheathing.

Q.—Are the stops-logs flush with the face logs of the crib, or are they in front of them?

A.—I am afraid I do not know what you mean.

Q.—There are two logs in the face of the crib. Would the stop-logs be lying on the face, or level with it?

N. J. KAYSER (for Plaintiff in Rebuttal) Cross-examination.

A.—They could be either. They could be put in front, and there is no objection to doing it.

Q.—Then, you would have to put a jog in your sheathing. You would have your stop-logs in front, and you would have a jog
10 in your sheathing?

A.—You could do that.

Q.—There are gaps sometimes?

A.—Yes. You could float a small crib into the gap if you wish. That is often done.

Q.—You should endeavor to fill them so that they will be in line? Is that preferable?

A.—It is preferable, but it is not essential.

Q.—Of course, nothing is essential so long as the water is held back?

20 A.—Exactly.

Q.—Why do you fill the gaps?

A.—You fill the gaps to support your sheathing.

Q.—As regards the gaps below, you said you put your flooring at a certain height over the level of the river-bottom. So, there are gaps below?

A.—Yes.

Q.—What do you do with those gaps?

A.—They are covered by the sheathing.

Q.—How would you send a diver down to work, if you
30 have those gaps there?

A.—In a case of that kind, or in any cofferdam in 20 feet of water or anywhere near it, the diver has to work in the lee of the sheathing already placed, with no major portion of his body sticking out.

Q.—Therefore, you would leave those gaps under the flooring open until the sheathing is placed?

A.—They are always open. The gaps under the floors are never filled at any time.

Q.—They are closed by the sheathing?

40 A.—The face is closed, yes: the same as the rest of the cofferdam.

Q.—You said you once saw a four foot gap under a crib?

A.—That was in one instance.

Q.—What was the reason for that? How did it happen?

A.—We were floating the key crib of a cofferdam down the river, with the intention of easing it down into place, and the cable broke. When it got into position it was in the shape of a cork. We intended to hold it there until we got sufficient weight on it

N. J. KAYSER (for Plaintiff in Rebuttal) Cross-examination.

to get it to the bottom, but the cable broke as it was entering, and it went back and jammed.

Q.—Were you there at the time, or are you simply telling us something that was reported to you?

10 A.—I was in charge of the work at the time.

Q.—I understood you to say that was a difficulty which arose and to which you had to give special treatment?

A.—Yes.

Q.—And, if I understood you correctly, you put an outrigger and a poling board. What does that mean?

A.—I said we put an outrigger, to keep the sheathing back on top. It is really a waler, on the upstream side of those timbers that we put down to keep them from going forward.

20 Q.—In other words, the outrigger there operated as a pull down ?

A.—It serves the purpose of nails on top.

Q.—And pulls the other part down, to serve against the pressure below?

A.—To avoid an over-turning movement.

Q.—In other words, you want to overcome the pressure on the bottom sheathing, which would tend to draw the top of the sheathing away upstream?

A.—Yes.

Q.—What is a poling board?

30 A.—Possibly I should not have used the term, because it has not much to do with anything here. The timbers in that case function as poling boards do in tunnel or wherever they use poling boards. It is a cantilever beam.

Q.—You had an outrigger, which is purely and simply a piece of wood nailed on the upper part of the sheathing, holding it back to the crib?

A.—Yes. A poling board is a piece of timber that acts as a cantilever. In construction terms they call them poling boards.

40 Q.—Apart from putting this outrigger, what did you do with those four feet ?

A.—When we got them down, the diver got behind them and cemented up the bottom with cement.

Q.—Apart from the outrigger you put a poling board. Where did you put it?

A.—The poling boards in that case were the 8 x 16 timbers that we inserted from the top down. They went down in a slot that was parrallel to the face of the crib.

N. J. KAYSER (for Plaintiff in Rebuttal) Cross-examination.

Q.—Below the crib, or above?

A.—Right along the top. We drove them down.

Q.—Then, they were the sheathing?

A.—Yes, they were the sheathing.

10 Q.—Then, you had outriggers to hold the sheathing, and you had the sheathing itself, and you sent your diver down to do the cementing?

A.—Yes.

By Mr. St. Laurent:—

Q.—Have you ever heard of doing trenching in front of a line of cribs to place your sheathing?

20 A.—I never have heard of it, except for what the diver might push out of the way with his foot or his hand — something he might scrape — nothing with any instrument, or anything of the kind.

Q.—In your opinion, would there be any danger or inconvenience in doing any excavating along the face of the cribs?

A.—I would think there might very well be.

By Mr. Geoffrion:—

Q.—It depends on circumstances?

30 A.—Yes. If it was a loose bottom, the danger is a blow.

Q.—Danger of the earth blowing upstream?

A.—No : it blows through.

Q.—Downstream?

A.—Yes : and it is liable to take the diver in.

By Mr. St. Laurent:—

40 Q.—You said that in the special instance to which you referred you put in this 8 x 16 sheathing, and the diver went down and cemented the bottom. Where was the cement placed?

A.—Along the toe of the sheathing.

Q.—Between the end of the sheathing and the bed of the stream?

A.—Yes. It happened to be rock there.

Q.—And, it was cemented to the rock?

A.—Yes.

Mr. St. Laurent:—I have no further questions.

And further deponent saith not.

G. C. CLARKE (for Plaintiff in Rebuttal) Examination in chief

DEPOSITION OF GEORGE C. CLARKE

A witness examined on behalf of Plaintiffs in Rebuttal.

10 On this fourteenth day of March, in the year of Our Lord, one thousand nine hundred and thirty-three personally came and appeared George C. Clarke, of the City and District of Montreal, Vice President, Fraser-Brace Company, Limited, aged 63 years, a witness produced and examined on behalf of the Plaintiffs in rebuttal, who, being duly sworn, depose as follows:

Examined by Mr. St. Laurent, K. C., of Counsel for Plaintiffs:—

20

Q.—How long have you been one of the administrative officers of the Fraser-Brace Company?

A.—Since 1911 : twenty-two years.

Q.—What is your profession?

A.—I am a civil engineer.

Q.—You are Vice President of the same Company with which Mr. Kayser is connected?

A.—Yes.

30 Q.—He has told us of some of the jobs carried out by that Company. Perhaps you would mention some of the bigger jobs your Company has done in recent years.

A.—The first one we did in Canada was the Cedars Rapids job, on the St. Lawrence River, for the Montreal Light, Heat & Power Company.

We did three hydro-electric developments in recent years on the Gatineau : Farmer's Rapids, Chelsea, and Paugan Falls.

The latest hydro-electric development we did was on the Churchill River, in Saskatchewan.

40 There have been a number of others, but those are the more recent.

Q.—Have you done any work for the Quebec Streams Commission?

A.—I have done some work for the Quebec Streams Commission, yes.

Q.—Who did the work for the reservoir behind the Gouin Dam?

Witness:—That is on the Gatineau?

Counsel:—On the upper St. Maurice.

G. C. CLARKE (for Plaintiff in Rebuttal) Examination in chief

A.—Major Brace was in charge of that work. I was not in Canada at that time : I was in the United States.

Q.—What is Major Brace's connection with your Company?

10 A.—Vice President of Fraser-Brace & Company.

Q.—Have you had any experience, or has your firm had any experience, with the handling of hardpan?

A.—Yes.

Q.—Will you tell His Lordship whether or not it is practicable to try to handle hardpan with a steam-shovel, without the use of explosives?

A.—We tried to do it at Cedars, where we had between 200,000 and 300,000 yards of it, and we could not use them without explosives.

20 Q.—How big a steam-shovel were you attempting to use there?

A.—We had a 70 ton Bucyrus, and a 60 ton Marion, in that work. Each of those had two and a half yard dippers, manganese teeth.

Q.—Why was it not found practicable to handle it without explosives?

A.—The shovels would not do any work. You would keep the shovel working, but you could not get out any yardage.

30 Q.—And I suppose it is not the practice of the Fraser-Brace Company to do business in that way?

A.—No, absolutely not.

Q.—I presume I may take it your firms has had a good deal of experience in the placing of cofferdams.

A.—Yes.

Q.—What have you to say with respect to the necessity or otherwise of having the cribs closely fit the bottom of the stream which is being cofferdammed?

A.—It is desirable, but not essential.

40 Q.—Will you look at Exhibit P-37, showing the manner in which the wood sheathing upstream of those cribs was placed, and will you tell His Lordship if you have ever heard of sheathing being placed in that manner?

A.—I do not recall any job where it was placed that far away from the cribs, if that is what you mean; but I do not see any objection to it at all.

Q.—What is the purpose served by the cribs in cofferdamming?

A.—It is to hold the sheathing back, so that the water cannot go through.

G. C. CLARKE (for Plaintiff in Rebuttal) Examination in chief

Q.—In streams where the current varies from two to eight and a half miles an hour, how close together is it practicable to get your piers?

10 A.—That depends on the type of your piers, and their shape.

Q.—Ordinary rectangular piers.

A.—Ordinary rectangular piers, I should think a foot and a half probably would be clearance enough, if you guide them properly as they go in.

Q.—How do you take up the space between them?

A.—You can take it up in various ways. You have to block it out. You will have to get a timber along the face, and you can block that from the cross timbers farther back.

Q.—That is, start out from the cross timbers farther back?

20 A.—In the crib, yes. Very often the filler section can be built in with a wedge, but then, of course, you cannot be sure that you are going to get the face tight. Probably when it wedges in it will either be down, or up. You cannot design it so that it will give you an even face.

Q.—How is the unevenness of the face taken up in the placing of the sheathing?

A.—You make an offset in your sheathing.

Q.—Have you had any experience in the driving of sheet piling?

30 A.—Yes.

Q.—Is it possible to drive sheet piling through a rock spoil bank?

A.—No.

Q.—Have you had any experience in sheathing cofferdams without the use of divers?

A.—Yes. We have done it where the bottom was not hard, and where the river is too swift.

40 Q.—If you were to assume that the cribs for the cofferdam in this river were placed as shown on Exhibit P-37, and that there were logs entangled in the faces of those cribs, would you consider it safe, or otherwise, to send a diver down into about 20 feet of water?

A.—I have never had any experience with a cofferdam in which logs were emmeshed in the face.

It might be possible to do that by starting from the shore, and driving your sheathing through until you came to a log, then sawing it off, and then driving another piece of sheathing. You might get across with that.

I never had any experience in work of that kind.

G. C. CLARKE (for Plaintiff in Rebuttal) Cross-examination.

Q.—You never had any experience with logs becoming emmeshed in the faces of cribs?

A.—No, I never had. We have worked on a good many rivers where there were a great many logs, but there was always
10 some arrangement made to keep them back when we were driving the coffer, or to take them around in some other way.

Cross-examined by Mr. Geoffrion, K.C., of Counsel for Defendant.

Q.—In those cases you made arrangements to have the logs kept back while you were placing your coffer?

A.—Or else to take them around in some other manner. I have never seen logs run when we were putting in a cofferdam.

20 Q.—The problem of logs was solved in some way: either you had them held up, or sent around another way?

A.—I never saw logs when we were setting coffer.

Q.—And, those were the two ways you adopted to avoid them?

A.—Yes.

Q.—You said you remember occasions when you had to do without divers in laying your sheathing?

A.—Yes.

Q.—Do you remember any particular instance of that?

30 A.—Yes. I did not use a diver on the upstream coffer at Paugan Falls. Mr. Kayser mentioned the celebrated example out on the Churchill River, where we could not use a diver.

Q.—I think he said he used one after?

A.—He used one the same day. I thought your question was in regard to driving sheathing.

Q.—Instead of using the diver while driving the sheathing, he drove the sheathing and then used the diver to cement the bottom?

A.—Yes.

40 Q.—That was on the Churchill River?

A.—Yes.

Q.—How did you handle the problem raised by the absence of the diver at Paugan Falls?

A.—They used a diver on part of the sheathing there, but not on all of it. When they got into the swift part of the river they did not use the diver.

Q.—Were you there?

A.—No, I was not there, and I really cannot give you the details of it.

G. C. CLARKE (for Plaintiff in Rebuttal) Cross-examination.

Q.—Can you mention any of your own experiences where you placed your sheet piling without the use of a diver?

A.—Oh, yes, but it was where we had bottom that we could drive the sheathing into.

10 Q.—You do not remember of any other in your own experience?

A.—Yes, I do, — and we had a terrible time with it too. That was at Island Falls, on the Abitibi River. It was too swift to use a diver. After driving our sheathing there we put bales of hay in, and rock on top of the bales of hay, and we had to build little coffer out at an angle of about 45 degrees from the main river. Back of them we dumped clay. Those wing coffer were intended to hold the clay in position so that it could not wash downstream.

20 Q.—Were the wing coffer above the sheathing?

A.—They were outside of the sheathing.

Q.—Upstream?

A.—We were practically parallel with the stream. This was an up and down stream coffer, and we were practically parallel with the stream. If you tried to dump your toe fill in, the stream would carry it away, so we had to put in those wing dams.

Q.—The coffer was parallel to the flow of the stream?

A.—Yes.

30 Q.—And, your toe fill was being carried away by the stream?

A.—Yes.

Q.—And, your diver would not be able to walk in the stream?

A.—Yes.

Q.—And, you built those wing coffer at right angles to the sheathing?

A.—At an angle of about 45 degrees.

Q.—Pointing upwards, I suppose?

A.—Yes.

40 Q.—In order to hold the toe fill?

A.—Yes.

Q.—Do you remember of any other?

A.—Cedars was very much the same way. We had a cofferdam there about two miles long, parallel with the stream, and we had to take care of that in much the same way. You could not hold the toe fill there at all except with those wing cribs.

Q.—As far as you know, does that complete what you have in your memory now, apart from the places where a diver would not be used anyway?

H. G. ACRES (for Plaintiff in Rebuttal) Examination in chief.

A.—There were many of our jobs on which I do not know whether a diver was used or not, because I was not there. Those I have mentioned are the ones I know.

10 And further deponent saith not.

DEPOSITION OF HENRY G. ACRES

A witness examined on behalf of Plaintiffs in Rebuttal.

20 On this fourteenth day of March, in the year of Our Lord one thousand nine hundred and thirty three personally came and appeared Henry G. Acres already sworn, who being recalled as a witness on behalf of Plaintiffs in Rebuttal, deposes as follows:

Examined by Mr. St. Laurent, K. C., of Counsel for Plaintiffs.

Q.—You have already been sworn and examined in this case?

A.—Yes.

30 Q.—And you have given us your experience?

A.—Yes.

Q.—You stated you had seen the material for which a claim was charged in this case as being hardpan?

A.—Yes.

Q.—From your experience would you consider it practical, or otherwise to attempt to handle that material with a steam-shovel, without the use of explosives?

A.—No, I never saw any occasion where it could be done.

40 Q.—What impression would a steam-shovel with less than a one yard bucket make on such material?

A.—Unless it was shot before digging, it would make no impression whatever. If it was broken up, it would dig, but it would not be a suitable machine for the class of material I saw at Cedar.

Q.—What size steam-shovel would you advise providing that class of material, if a steam-shovel were going to be used?

Witness:—With shooting?

Counsel:—Yes.

H. G. ACRES (for Plaintiff in Rebuttal) Examination in chief.

A.—I do not think anything less than the kind of Mr. Kayser described would be at all suitable. I never saw a smaller shovel than that being used with any success.

10 The last experience I had with hardpan was a very short time ago, in the tailrace of the Abitibi Canyon, and the shovel there happened to be a 70 ton Bucyrus.

Q.—From the knowledge you have of the Lievre River, and from your visits would the relative positions of those cribs as shown on Exhibit P-37 be any indication of defective work, or otherwise?

A.—Not necessarily, no.

Q.—Why not?

20 A.—On account of the function the cribs are supposed to fulfill, and the fact that they did discharge that function.

Q.—Have you had experience with the driving of steel sheet piling?

A.—Yes.

Q.—Is it possible to drive steel sheet piling through a rock spoil bank?

A.—No, not at all.

30 Q.—From your experience, would you consider it would have been practicable to use a diver under water to attempt to saw off the logs which it is contended were emmeshed in the faces of those cribs?

A.—I have never seen it attempted. Human life is rather a precious thing to take chances with. Of course, it is very easy to be critical after the event, but I do not think I would care to take the responsibility of ordering a diver down to do a job of that kind at that particular place.

40 Mr. Geoffrion, K. C., of Counsel for Defendant, declares he has no cross-examination to make of the witness.

And further deponent saith not.

And the further hearing of testimony in this case is continued to Wednesday, March 15th, 1933, at 10.30 o'clock in the forenoon.

H. LINDSKOG (recalled for Plaintiff in Rebuttal)
Examination in chief.

DEPOSITION OF HARRY LINDSKOG (*recalled*)

A witness recalled on behalf of the Plaintiff in Rebuttal.

10 On this fifteenth day of March, in the year of Our Lord, one thousand, nine hundred and thirty-three, personally came and reappeared Harry Lindskog, a witness already examined, now recalled on behalf of Plaintiff in Rebuttal, who, being duly sworn, doth depose and say as follows:

Examined by Mr. St. Laurent, K. C., of Counsel for Plaintiff:—

Q.—You have already been heard in this case?

20 A.—Yes.

Q.—I understand that you are the one who gave the information for the identification of the plant that was used on the unwatering?

A.—Yes.

Q.—And which is shown in P-117?

A.—Yes.

Q.—You do not pretend that these dates you have set down there, are taken from any records? They are your best recollection, basing that recollection upon the data you have concerning
30 the time at which the various operations were performed?

A.—Well, it is not from any record.

Q.—It is not from any exact records dealing with each particular item, but it is from your general records from the time when each bit of work was done?

A.—Yes.

Q.—There were two questions put to Mr. Griffith with respect to some material vouchers having to do with the unwatering, and he said that he was not able to answer one dealing with the item of \$99.93 for dynamite and caps on the
40 September, 1930. How would that material enter into the unwatering?

A.—That item is probably for toe filling.

Q.—I am not so much concerned with just exactly what that item was used for, but why did you have to use dynamite and caps in connection with the unwatering?

A.—For blasting boulders, and getting pits in there where we were taking our toe fill undoubtedly.

Q.—It would not be material placed in the river bed, the material used to get your burrow pit ready to get your toe fill?

H. LINDSKOG (recalled for Plaintiff in Rebuttal).

Cross-examination.

A.—Where we had our burrow pit all through that country, it is very rocky ; it is full of boulders, and there would be boulders hanging up on the face, and there would be boulders in the road, that we had to get out of the road. It is not,
10 that we busted the boulders to throw from the toe fill.

Q.—There is another item of \$109.08 for pipe on a slip that bears the date 16th August 1929. How would any pipe be required or be used in the unwatering?

A.—That may have been steam lines or pipe line all the way from one inch to four inch steam line. It may have been extra discharge pipes for our pumps that we had to get.

Q.—Was there, in fact, any substantial quantity of piping of from one to four inches used in the unwatering of that stream?

A.—Certainly, a great quantity.

20 Q.—With respect to the distribution of the fuel, from the fuel account, for the winter work, Mr. Griffith said that you made the estimate which he put into his statement. Upon what did you make that estimate?

A.—I recollect pretty well what camps we had, and the camp equipment, and I know fairly well just how much they had to use. I also know pretty clearly how many labourers we had in the summer time, and how many labourers we had in the winter time.

30 Q.—Would you undertake to say under your oath that that is the fairest estimate you can make to distribute that account?

A.—Yes sir.

Cross-examined by Mr. Geoffrion, K. C., of Counsel for Defendant:—

Q.—You started pumping, according to your statement, on the 23rd September?

A.—Something like that.

40 Q.—You then had six pumps?

A.—Well, I took a lot of that from the record. I think that is correct.

Q.—If you cannot say correctly, I cannot.

A.—I made it three years after and at the time I made it I tried to make it as accurately as I could.

Q.—How long after did you call for reinforcement in the pumping? I see you had pumps that arrived on or before the 1st of October, three more pumps I take it?

A.—We started pumping on the 22nd, and after the first

H. LINDSKOG (*recalled for Plaintiff in Rebuttal*)

Cross-examination.

pumping, when we could not get down, we got some extra pumps from High Falls later on, and later on we got some rented pumps from Montreal.

10 Q.—There are two additions?

A.—Three additions really. There are more pumps from High Falls, some rented pumps, and we sent to New York for some gasoline pumps.

Q.—I start according to your note ; on the 23rd September pumping started with six pumps. I turn the page, and see that three pumps arrive on or before October 1st. Two pumps arrived on the 6th December.

20 Mr. St. Laurent:—There is correspondence in connection with that.

Mr. Geoffrion:—I am looking for these now.

By Mr. Geoffrion:—

Q.—Is that all? That is all I find.

A.—We have a plant record.

30 Q.—Either it is correct, or it is not correct, so I am assuming it is correct.

A.—It is correct.

Q.—If it is correct then, did I omit any pumps in the statement that was made?

A.—No. This is correct, because I have taken that from the plant record sheet.

Q.—How many men would be required for each pump?

A.—One pump man would be required to start with, and a sump man.

40 Q.—Would there be a sump man for each pump or one for all?

A.—It all depends how your pumps are located. As a rule you have to have one sump man for each pump?

Q.—One pump man, of course?

A.—And one pump man, and later we had there, for the gang of pumps we had there, we had to have extra labourers help us to carry oil etc. to the pumps. We had to have steam fitters day and night to watch the pipe repairs, and of course, then, there are firemen and a pump foreman.

Q.—About how many men did you have there? How many did you start with?

H. LINDSKOG (recalled for Plaintiff in Rebuttal)

Cross-examination.

A.—We started with six. We would have, say, fourteen men directly connected with the pumps, besides the fireman on the boilers, and men, the roustabouts, to carry coal etc.

10 Q.—How many men would you have for the boilers?

A.—Fifteen men.

Q.—In October, for the three boilers, how many men would they require ?

A.—They would require each, one pump man per shift, and they would require each, a labourer, or sump man, whatever you wish to call him per shift. Probably one man, one labourer, to carry oil, waste and so on and an additional foreman.

20 Q.—You say you would have fifteen men for your six pumps ? You would want eight more men for your three ?

A.—Just one.

Q.—But more men for each pump. Your men, I understand, do not need to be duplicated ?

A.—No, they would not need to be duplicated. On a unwatering proposition like that, it does not pay to have a man look after two pumps. He has all he can do to look after one pump to keep it going.

Q.—Were all your pumps working all the time, because we have nine pumps now ?

30 A.—At times when we tried to unwater, we tried to keep them going.

Q.—And you have two more pumps that arrived on the 6th of December, that is, eleven pumps. Do you say that all these eleven pumps worked all the time ?

A.—No, I would not say we had all of them working at the same time altogether, except after the steel sheeting was put in we made one draw down, when, I think, we had all the pumps working for a certain period of time.

40 And further deponent saith not.

W. I. BISHOP (recalled for Plaintiff in Rebuttal)
Examination in chief.

DEPOSITION OF WILLIAM I. BISHOP (*recalled*)

A witness produced on behalf of the Plaintiff in Rebuttal.

10

On this fifteenth day of March, in the year of Our Lord, one thousand nine hundred and thirty-three, personally came and appeared William I. Bishop, a witness already examined, now recalled on behalf of the Plaintiff in Rebuttal, who being duly sworn doth depose and say as follows:

Examined by Mr. St. Laurent, K.C., of counsel for Plaintiff.

20

Mr. St. Laurent:—There is one matter I have to crave the indulgence of the Court, and that is, with regard to exhibit P-49 which was put in when we opened our case. There was a portion at the foot of P-49 that was not tied in with the rest, and I had to obtain an explanation to tie it in, so I would ask your Lordship's permission to be allowed to ask Mr. Bishop about this.

By Mr. St. Laurent:—

30 Q.—Mr. Bishop, although you are being examined in rebuttal, I have to ask you to complete something which was put in when you were examined in chief. Exhibit P-49 contains your estimate of the increased cost of doing the concrete work in winter, and it also contains the statement of your estimate of the increase in cost of forms during that period, but the increase in forms in square feet of forms, and there is not anything to tie that up to the yard of concrete. Will you explain how that additional cost of the forms affects the cubic yard of concrete?

A.—Well, the cost of the form does not enter into this estimate for the concrete.

40

Q.—Not into the \$3.20 and the 60 cents?

A.—No.

Q.—And how much does the cost of the form add to the yard of concrete if it is, as you estimate it, 13 cents for the plain form per foot, and 22 cents for the curved form per foot?

A.—The actual cost divided by the number of yards of concrete, is 91 cents per cubic yard, and if 37 per cent is added to that, it makes it \$1.25 a yard additional.

Q.—Will you file as exhibit P-120 the calculation showing how the figures you have just given are arrived at?

A.—Yes.

W. I. BISHOP (recalled for Plaintiff in Rebuttal) Cross-exam.

Q.—When Mr. Griffith was examined, he was asked by Mr. Geoffrion to show him your original estimate of your cost for unwatering the main channel and the by-pass, and he did so, and those figures amounted to \$56,269.00 (leaving out the cents) and
10 the declaration shows that you credit as receiving for the main channel work, \$49,050.20, arrived at from Mr. O'Shea's monthly estimates in the manner which has been explained; if there had been no logs, and no surprises in the bed of the stream, would the \$49,050.20 have been enough to do the work?

Mr. Geoffrion:—I object to this question. This should have been examination in chief. That is part of my learned friend's examination in chief, and not rebuttal.

20 Mr. St. Laurent:—Perhaps my learned friend is right. I should probably have made it in chief, but it was over looked. That is the basis upon which the claim is made, the difference between what it would have cost us, and what it did cost us. I am not sure that it is not in already. It may be in but I am not sure that it is, and I would like to be sure that it is in, and I would apply for leave to put it in.

His Lordship:—The Court always has the right to allow you to put something in you may have over-looked. We want all
30 the facts.

Mr. St. Laurent:—I think it is quite apparent to the Court that that is the way the Plaintiff has made his case.

The Court allows the question.

A.—I am still confident that it would have been sufficient.

Mr. Geoffrion:—I will not cross-examine the witness on that point, but I give my learned friend clear warning that I
40 think I have got from the vouchers filed here sufficient evidence on the face of his documents, that it was far above that price.

Mr. St. Laurent:—We will argue that.

Cross-examined by Mr. Geoffrion, K.C., of counsel for Defendant.

Q.—Do you mean to say a form is more expensive to make in winter than in summer?

A.—Yes sir.

W. I. BISHOP (recalled for Plaintiff in Rebuttal) Re-exam.

Q.—And therefore, you forgot all about that when you made the claim?

A.—We did not explain it.

10 Re-examined by Mr. St. Laurent, K. C., of Counsel for Plaintiff:—

Q.—The extra cost is explained, is it not, in that additional sheet, and is in part, because you contend that your lumber has to remain about three weeks in place, whilst in the summer it is stripped off after three or four days, and can be used again?

A.—Yes.

Q.—There was an error made in making up your account for the downstream cofferdam?

20 A.—Yes.

Q.—Have you prepared a sketch which shows where the work was done, which we are not now claiming for, and which had been put in to the original claim?

A.—Yes.

Q.—Will you file this plan as P-121?

A.—Yes.

Q.—I understand that there was charged to the by-pass cofferdam work which was done above the line of the dam?

30 A.—There was a bank of material left at the upstream end of the cofferdam, and another construction placed in the by-pass after it was excavated. That was all carried on the same account apparently as by-pass cofferdams, and inadvertently when the claim was made up by Mr. Allison, he just took the whole thing.

Q.—He took the whole account?

A.—There is no subdivision of that in our accounts, and the moment it was mentioned that there was some work charged in July I saw at once there was something wrong. I investigated and found that that was the answer.

40 Q.—And that explains the reduction that has been made in the accounts which have been filed today by Mr. Griffith?

A.—That is right.

Mr. Phelan:—I would ask, my Lord that Mr. Bishop be allowed to produce a document. In paragraph 56 of the declaration it is alleged that Mr. Bishop's claim made in this case is assigned to the Bank of Montreal, and in paragraph 24 of the plea it is admitted that there was an assignment made, and signification was made on the defendant, but from the wording

H. LINDSKOG (recalled for Plaintiff in Rebuttal)
Examination in chief & Cross-examination

of the paragraph it would appear that it might be restricted to the original tender price, that is, to the contract price. I will file here as one exhibit the original assignment of signification, the second assignment which covered the extras that are claimed
10 and the signification, as one exhibit, P-122.

And further deponent saith not.

DEPOSITION OF HARRY LINDSKOG (*recalled*)

A witness recalled on behalf of Plaintiff in Rebuttal.

On this sixteenth day of March, in the year of Our Lord,
20 one thousand nine hundred and thirty-three, personally came and reappeared Harry Lindskog, a witness recalled on behalf of the Plaintiff in Rebuttal, who, being duly sworn, doth depose and say as follows:

Examined by Mr. St. Laurent, K. C., of Counsel for Plaintiff:—

Q.—Mr. Lindskog, I understand that after looking over your notes, you came to the conclusion that the date inserted on exhibit P-117 as that on which the pumping started, September
30 23rd, 1929, is not correct, and that that was the date when you started pumping heavily?

A.—That is the date when we started pumping heavily, but we had tried out our pumps about the 1st of September; then, we tried some pumping on or about the 4th or 5th. It was at the time that Mr. Bishop came down, we tried some pumping then, but stopped. We tried pumping for possibly a day.

Q.—And then, the heavy pumping started on the 23rd?

A.—Yes.

40 Cross-examined by Mr. Geoffrion, K.C., of counsel for Defendant.

Q.—While there was some pumping done before the real systematic pumping, it ended on the 23rd?

A.—From our records, that is the best we got. We had the pumps in position, and we had tried several times before.

And further deponent saith not.

E. W. Bush,
J. H. Kenehan,
Official Court Reporters.

J. C. McINTOSH (for Defendant in Sur Rebuttal) Exam. in chief

Defendant's Evidence in Sur-Rebuttal

10

DEPOSITION OF JOHN C. MCINTOSH

A witness produced on behalf of the Defendant in sur rebuttal.

On this sixteenth day of March, in the year of Our Lord, one thousand nine hundred and thirty-three personally came and appeared John C. McIntosh, a witness already examined, now called on behalf of the Defendant in sur rebuttal, who being duly sworn
20 doth depose and say as follows:

Examined by Mr. Geoffrion, K. C., of Counsel for Defendant.

Q.—You have prepared for me a statement, giving the dates at which the various items of the work were begun and completed, and other similar details?

A.—Yes.

Q.—This statement contains five pages, but is in ink.

30

A.—Yes.

Q.—Is that statement correct?

A.—Yes sir.

Q.—Will you please file it as exhibit D-44?

A.—Yes.

No cross-examination.

And further deponent saith not.

40

E. W. Bush,
J. H. Kenehan,
Official Court Reporters.

In the Privy Council.

VOL. 5

No. 72 of 1936.

ON APPEAL
FROM THE COURT OF KING'S BENCH FOR THE
PROVINCE OF QUEBEC

BETWEEN

WILLIAM I. BISHOP LIMITED and
THE BANK OF MONTREAL

(Plaintiffs and Cross-Appellants before Court of
King's Bench) *Appellants*

AND

THE JAMES MACLAREN COMPANY LIMITED

(Defendant and Cross-Respondent before Court of
King's Bench) *Respondent*

RECORD OF PROCEEDINGS.

VOLUME 5.—DEFENDANT'S EVIDENCE (CONTINUED).
PLAINTIFFS' EVIDENCE IN REBUTTAL AND
DEFENDANT'S EVIDENCE IN SUR-REBUTTAL.

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