they are in no sense an order on a person who holds actual money of the bankrupt; and that being so, I agree with Lord Shand in thinking that we cannot extend further the rules applicable to drafts drawn by a person on his own banker, and we certainly cannot extend them to indorsed cheques such as we have in the present case.

As to the defence that what was done here was in the ordinary course of business, I agree with Lord Shand in thinking that it was entirely out of the ordinary course of business, and that it was in fact the first and only time in which the bankrupts had adopted such a course.

I therefore agree with Lord Shand in the opinion which he has expressed.

The Lord President concurred.

Lord Mure was absent on Circuit.

The Court adhered, and found the pursuer entitled to expenses, except such as were occasioned by the amendment.

Counsel for Pursuer (Respondent)—D.-F. Mackintosh—Jameson. Agents—Boyd, Jameson, & Kelly, W.S.

Counsel for Defender (Reclaimer)—R. Johnstone—C. K. Mackenzie. Agents—J. C. & A. Steuart, W.S.

Friday, March 5.

FIRST DIVISION.

[Lord M'Laren, Ordinary.

GWYNNE *v.* DRYSDALE & COMPANY.

Patent—Specification—Infringement.

The specification of a patent for the invention of "improvements in pumping engines" set forth that this was to be accomplished by arranging the pump-case "with the suction and discharge pipes to swivel, so that the suction and discharge pipes can be set at any angle without interfering with the driving engine," and the claim of novelty was "the arranging the pump-case to swivel substantially as hereinbefore described, with reference to the accompanying drawings, for the purpose specified." The arrangement referred to, which was described in the specification, consisted of several pieces of mechanism, none of which were claimed as novel. The pump-case and motor-frame were cast separately with circular flanges corresponding to each other so that they might be bolted together; as the pump case was made to overhang the motor-frame, there was a trunnion or check and turned hollow boss projecting from the flange of the pump-case which fitted into a hole in the flange of the motor frame, and thus the concentricity of the pump-case with the driving shaft was maintained; there was cut in the flange of the pump-case an annular slot with a T-shaped section into which fitted the heads of the bolts, which passed through holes in the other flange and which were secured to it by nuts; these bolts were capable of moving round the annular slot, but not of being pulled out; the result was that the pump-case could be freely rotated by slackening the screws, and could be fixed at any and every angle by clasping the two flanges together. It was alleged that this patent had been infringed by the construction of pumps in which the pump-case was made to overhang, and was attached to the motor-frame by means of bolts passing through holes drilled into the flanges, by which arrangement it was alleged to be possible, if the bolt-holes were equidistant, to turn the pump-case to certain definite angles by taking out and replacing the bolts in successive positions. *Held* (following *Harrisons* v. *Anderston Foundry Company*, July 2, 1875, 2 R. 857, *rev.* June 20, 1876, 3 R. (H. of L.) 55) that in law to constitute an infringement of such a combination the whole combination must be used, and that the inventor's combination *minus* an essential part of it was no longer the combination patented, and that therefore, even assuming the defenders' pump-case could be rotated to certain definite angles, his arrangement was essentially different from the pursuer's, as it would not enable the pump-case to be swivelled to any and every angle, and required in its use interference with the driving engine, which it was a characteristic of the pursuer's invention not to require; further, that it had not been proved that the defender's pumps would accomplish any such result as that ascribed to them by the pursuer.

Observed (*per* Lord President) that an infringer by merely omitting some immaterial part of the mechanism described in the specification, or substituting for such immaterial part some mechanical equivalent, will not escape conviction if his machine contain all the essential and characteristic features of the patented combination.

John Gwynne, sole partner of the firm of John & Henry Gwynne, hydraulic and mechanical engineers, Hammersmith Iron Works, London, brought this action against Drysdale & Company, Bon Accord Engine Works, London Road, Glasgow, to have them interdicted from "infringing the letters-patent, dated 23d July 1878 . . . granted to the pursuer for the invention of 'improvements in pumping-engines;' and, in particular . . . . from making or selling or using without the pursuer's consent or license any mechanism, or method or arrangement of mechanism, relating to pumping-engines in which pumps are driven by steam-power, and having for its object to enable their suction and discharge pipes to be swivelled and set at any angle, without interfering with the driving-engine, and constructed in the manner described in the said letters-patent, and the specification relating thereto, or in a manner substantially the same; and from making or selling or using without said consent or license any apparatus or machine constructed with, or embracing in its construction, such mechanism or method or arrangement of mechanism as aforesaid."

The defenders pleaded that the patent was null and void in respect of (1) prior use; (2) no practical utility; and (3) failure to distinguish what was old and not claimed from what was new and

claimed. They also pleaded that there had been no infringement, and upon this plea the case ultimately turned.

The nature of the invention is described by the Lord Ordinary in his opinion *infra*, which also contains the material facts proved in the case.

On 15th July 1885 the Lord Ordinary (M'Laren), who heard the case along with Professor Tait as assessor, found that the defenders had not infringed the letters-patent founded on by the pursuer, and assoilzied them.

"*Opinion.*— . . . . This is an application for interdict against the contravention of the letters-patent taken out by Mr Gwynne for improvements in centrifugal pumps, the improvement consisting in an arrangement whereby the pumps shall be made to turn round or swivel in relation to the frame of the engine or motor, so that its suction and discharge pipes may be placed at successively different angles to the perpendicular. We have nothing to do with the mechanism of the pump itself. I understand that the centrifugal pump is a pump in which the water is lifted by the revolution of vanes, which takes the place of the reciprocating movement in the common pump; but that really does not enter into this case at all.

"Now, we have no doubt, upon the evidence and the explanations that have been given, that this is a useful improvement, and, as described in the specification, it is the proper subject of a patent. It appears that Mr Gwynne had been asked by some of his customers whether he could not supply a pump in which the direction of the suction and discharge pipes could be altered, and he reflected and came to the conclusion that the best way of doing so was by changing the adjustment of the whole pump-case instead of attempting to impress such a movement merely upon the pipes, and we have had reasons given why this was the proper way of accomplishing the object. The mechanism described is of a very simple character. Of course it is not claimed that any of the mechanical parts are new. The claim is for accomplishing the object of swivelling the pump by a suitable combination of known mechanical arrangements; and the mechanical appliances are these—the flanges of the pump and the engine-frame are to be bolted together, but as the pump overhangs, and its weight is to be borne by the flange of the engine-seat or motor-frame, it is necessary that there should be a trunnion or check, or some projecting part of one of these flanges, which is made to fit a corresponding depression in the other, so that the weight of the overhanging pump shall be to a large extent borne by this projection, and not thrown upon the bolts which couple the two plates together. That would be necessary in any case of an overhanging pump, although it were not intended to be swivelled. But where it is intended to be swivelled care must of course be taken—first, that the flanges, if plane, have their plane surfaces truly at right angles to the axis of the shaft that is to pass through them; secondly, that the trunnion, or whatever is its proper name, should be a true cylinder or surface of revolution; and thirdly, that the cylindrical surface should be concentric with the shaft. These are conditions which, I should imagine, would occur to any person having even the most elementary knowledge of mechanics, and certainly to any engineer who is setting about such an invention as this.

"It is not only necessary that the pump should rotate for the purpose of adjusting it, but also that it should be securely clamped and fixed at the required angle when it is working, and that is provided by an arrangement which I need not describe in detail. There is an annular slot with a T-shaped section cut in one of those flanges, in which the heads of the four (or other number of) bolts are confined, so that the bolts are capable of moving round the annular slot, but not of being pulled out. These pass through holes in the other flange, and are secured behind it by nuts. The result is—and I believe in this I am also expressing the opinion of the learned assessor—that the merit of this invention or improvement consists in this, that you have the power of free rotation to any required angle, the power of moving the rotating pump-case by simply slackening the screws without displacing them, and the power of clamping the pump at any angle that may be required. There might be other mechanical means of accomplishing these objects, but they are certainly accomplished by the movement which is described in the specification, and, in the opinion of the assessor, accomplished in a very efficient and practical manner. Therefore there can be no doubt that the patent is a good patent if it has not been anticipated; and we have not had any evidence that deserves consideration on the subject of anticipation, because we are quite clear that neither the patent of Mr Bessemer nor the patent of Mr Newton, which professedly relate to other subjects, is an anticipation of this improvement for the purpose of swivelling. The important points are, that the rotation may be made without disengaging the screws so as to interfere with the stability of the pump, and that those screws can be clamped in any angular position. It is easy to see that any improvement of this kind might be varied by mechanical appliances. If an infringer leaves out some part of the inventor's design which, though useful, is not essential to it, this would be a colourable variation of the patented invention. It would be doing in a less perfect way the thing which the inventor has patented. If an infringer makes use of an inventor's design with improvements of his own, that would also be a colourable variation of the invention, and it will be so where a part or parts of the inventor's design are varied by the substitution of chemical or mechanical equivalents for one or more of the elements of the inventor's design. If you had, for example, a slot cut upon the outside of one of the flanges instead of on the inside, or if you had a number of clamps shaped like a vice to clamp the two flanges together, but capable of having the screws relaxed while the one flange was being turned round, I should have little doubt that a court of law would hold this to be a mere mechanical variation. But supposing the pumps made by the respondents were intended to be moved round to definite angles by taking out the bolts and changing the bolt-holes, it is a very different question whether a pump so made, capable of being turned only to definite angles, determined by the number of bolt-holes through which the bolts pass, would be a mechanical variation of this design. As at present advised, I think it would

not; and I think that is also the opinion which Professor Tait is inclined to come to, because in the case supposed you have nothing more than the means of turning the pump upon a hollow bearing, which is a very well-known elementary mechanical part, and a mode of clamping entirely different, not only in external form, but in principle, and not admitting of the clamping at any required angle. It is necessary I should dwell a little upon this, because the specification sets out by saying, 'I arrange the pump-case with the suction and discharge pipes to swivel, so that the suction and discharge pipes can be set at any angle without interfering with the driving engine,' and then, in the claim, the thing claimed is described to be 'the arranging the pump-case to swivel, substantially as hereinbefore described, with reference to the accompanying drawings for the purpose specified.' Now, reading these two passages together, and with reference to the description, we think that the claim was for an attachement of the pump to the motor-frame which would allow the pump to be placed at any angle, and not merely at certain definite angles, and that the arrangement or means for securing the pump to the motor-frame when it was in use must be substantially of the character described in this specification and drawings—that is to say, it must be a clamp allowing of continuous motion, and not merely a series of bolts that may be taken out and replaced in successive positions. While I have thought it right to state our view upon this part of the case, because we have had some indication that possibly swivelling pumps of that kind may hereafter be made, yet, strictly speaking, the question raised by the evidence here is, whether Mr Drysdale ever made pumps which are capable of being used in this way at all? There are some little variations in the evidence on the subject, but I think the weight of the evidence in relation to the defenders' pumps is to this effect, that unless the holes were bored for the purpose of being interchangeable, so that each hole of the one flange might be successively placed opposite the holes in the other, it would be impossible to secure the pump in successive positions, because the bolts would not fit. That would be the case even supposing the bolt-holes were placed approximately at equal distances as they usually are, for the sake of symmetry and equal distribution of strength. There is no doubt as to how the operation of boring is done when the bolt-holes are not intended to be interchangeable. First, the holes are laid off on the one plate and bored, and then that plate is placed in juxtaposition to the other plate, and the holes in the other plate are bored through from those of the first, and they are bored so that the bolts are to fit them tightly. Now, unless all the holes were placed with absolute accuracy on the same circle, and at absolutely equal distances, the result would be, that after one of the plates is turned round less than a circle, the holes in the two plates would not be simultaneously opposite each other, and there is no evidence that any attempt was made on the part of Messrs Drysdale's foreman or workmen to secure that equidistance of the holes which would admit of the two flanges being bolted together in different positions. No doubt it might be so. The gentlemen from that establishment quite candidly admitted it might be so, and I have no doubt occasionally it would be so, but they do not think, and nobody has said, that holes which are not drilled for the purpose of being interchangeable would in the general case be found to be so, or that that would be a mode which the maker would use if he intended the flanges to rotate face to face. It seems quite certain, according to the evidence of Messrs Drysdale's people, that they never went through the proper process of manufacture to enable such a result to be obtained. The evidence of Mr Morton, to whom I put some questions on the subject, is quite conclusive. He says that very great care must be used, and he described the means of obtaining absolute equidistance on the part of the bolt-holes, and he said it was impossible that any person who received a pump in which these precautions had not been taken could bore holes such as would admit of the pump being swivelled—that it would have to be taken to a shop and the holes bored by the aid of the proper tools and machinery.

"When we come to the actual machines made by Messrs Drysdale, only three cases were founded upon by the pursuer. The first was the case of a pump that had been supplied to Ramage & Ferguson of Leith, and it appears that in this instance the flanges of the pump were not circular, but what is called D shaped, one side being a straight line and the other a curve, and the straight side was made to rest upon a bracket cast on the motor-frame, and therefore it could not be turned round. It is said that by withdrawing the one plate from the other until it cleared the bracket, it might be turned round to an angle and then replaced. I do not know how far that is practicable, but the bolt-holes would certainly not be opposite each other, because they were not equidistant, and the arrangement of the flanges and holes were such as would only be adopted for a fixed overhanging pump. In the case of the machines that were supplied by Messrs Drysdale to the contractors for the Forth Bridge, I think some of them were of the same construction, and some had circular flanges, but Mr Arrol, who desired for some special purpose to alter the angle of the suction and discharge pipes, caused the two plates to be detached and the angle to be altered, and then he found that the plates would not fit. What corresponds to the trunnion—the circular projection on the one flange intended to fit into the other—was not concentric with the driving-shaft, and consequently when the flange was turned round the two parts of the bearing through which the axle was to pass were not opposite each other, and the axle could not have been passed through the pump in that position without being strained or broken. There could not be stronger evidence that the machine in question was never made for the purpose of being swivelled, and there is nothing to show that if the experiment had been tried upon the other pumps supplied to the Forth Bridge contractors any different results would have been obtained or are to be expected. Then, further, it has been shown that if Messrs Drysdale's object was to make a non-rotating pump to hang to the motor-frame, they could not well have adopted any other mode of connection than that which they had adopted. It would be quite contrary to sound mechanical principles merely to bolt the two flanges together without a

central boss or projection. It need not be circular, it might be square or any shape, but there must be some projection to bear the weight and relieve the bolts from the weight, and also to relieve them from the stress which would be otherwise put upon them by the revolution of the pump. No doubt these projections are generally made cylindrical, because that is the easiest way of making them. They can be turned to the same guage in the turning-lathe, and the one will readily fit into the other, no better way has been suggested, and therefore we may take it that Messrs Drysdale have just made a connection between the pump and the motor, as any honest maker would do who intended to make a fixed pump and not to copy the patent. All that can be said is, that if the plates were taken off and returned, and new holes bored in them you might get a pump which would swivel, but surely it can never for a moment be contended that this would be an infringement of the patent, assuming the object is not to make a swivelling pump, but one of the ordinary description.

"The only remaining point in the case is the order or offer which was made to execute a swivelling pump. It is rather a peculiar order. There were two cases—there was one spoken to yesterday and one this morning. The case spoken of yesterday depends entirely upon the impression made upon the mind of the witness who spoke to it—Mr Beal. Mr Beal went there—I do not think he is to be blamed at all—but he went there by arrangement with Mr Gwynne, to find out information; and he made proposals for the supplying of pumping-engines; and he says that Mr Drysdale offered to make him a swivelling pump if he desired it, but he did not give an order. Mr Drysdale does not remember having said so; but as he did offer in writing to make a swivelling pump for another person, I think it is very likely that Mr Beal's recollection is correct. Drysdale certainly made an offer to Mr Allan in the letter which we have in process. Well, in the first place, these cases are open to the observation that they were both offers obtained from Mr Drysdale by persons who were seeking for evidence of a contravention of the patent, and it is quite certain that Drysdale never supplied swivelling pumps to any previous customer. Further, the offer is a very general one. He does not say that these swivelling pumps which he was to supply were to be according to the description in Gwynne's specification. We have been shown a model of the machine intended to be supplied, but I do not know that that was necessary to the case. The patent does not claim every mode of swivelling a pump; indeed, I do not think a legal specification could be drawn such as would embrace every arrangement of swivelling—at all events, it was not so done here, and I cannot assume that the intention was to infringe the patent. The presumption is always in favour of innocence, and I must assume that Drysdale meant to supply something which was not a contravention. If Mr Allan had allowed the arrangement to go on, and had ordered a swivelling pump, we would then have seen what it was like, and possibly a case of infringement might have been made out; but the mere statement that an offer was made to supply a swivelling pump if desired, unaccompanied by any evidence of positive infringement, is not such evidence as in my opinion would justify the Court in granting an injunction or interdict against contravention. These interdicts are very inconvenient to manufacturers, because they are hampered in doing many things which they may think legal or permissible by the fear that they may possibly be brought in for penalties for breach of interdict, and I am quite clear that the circumstances I have last mentioned are insufficient to support an interdict.

"The result is, that while we are of opinion that this is a useful invention, and properly described, and that there is no objection to the patent as a patent, we are not of opinion that the respondents have infringed the patent, and consequently they are entitled to be absolved from the conclusions against them, or to have the action dismissed, with expenses."

The pursuer reclaimed, and argued—The defenders had taken the pursuer's combination, and had merely altered it by substituting certain mechanical equivalents.

The defenders argued that no infringement had in fact been proved, and that their pumps were not capable of swivelling to any angle—*Stewart & Briggs* v. *Bell's Trustee*, December 5, 1883, 11 R. 237, Lord President at 243.

At advising—

Lord President—The objections to the validity of the patent which were stated on the record have been abandoned, or at least have not been insisted in either before the Lord Ordinary or in the arguments which we have heard. The only question remaining to be disposed of is, whether the defenders have infringed the patent? But this question always involves the preliminary inquiry what is the subject-matter of the patent.

The patent is for improvements in pumping engines, and we are told by the patentee in his evidence that prior to 1878, when the invention was patented and published, the practice was to make the pump-case rest solid upon a bed in the same way as the motor or driving engine. "The result of that," he says, "was that the suction and discharge pipes could not be shifted to any angle that was wanted. When the machine was cast you could cast it with the suction pipe at any particular angle, and the discharge pipe at any particular angle, but when once cast it could not be altered to suit the necessities of the moment. In the actual work of centrifugal pumps that was found to be inconvenient, and there were frequent complaints made to us from out-of-the-way places where they had no bends to alter the flow of the water. The matter was brought under our notice and I applied my mind to it, and the result was the present invention."

The object to be attained, then, being to shift the position of the suction and discharge pipes to any angle that is wanted, the specification very distinctly sets out that this is to be accomplished by arranging "the pump-case with the suction and discharge pipes to swivel, so that the suction and discharge pipes can be set at any angle without interfering with the driving engine," and the claim of novelty with which the specification concludes is "the arranging the pump-case to swivel substantially as hereinbefore described with reference to the accompanying drawings for the purpose specified,"

i.e., to set the suction and discharge pipes at any angle.

The arrangement referred to is described in the main body of the specification, and consists of a combination of several pieces of mechanism, no one or more of which is or are alleged to be novel or claimed as such. (1) The pump-case is arranged so as to be not fixed on a bed but overhanging, so as to be rotatory. (2) The motor and the pump-case are cast separately, each with a circular flange, the two flanges corresponding to each other, so that they may be secured together by means of bolts. (3) There are also a turned circular fillet projecting from the flange of the motor, and a turned hollow boss which fits a hole in the motor frame, by which two pieces of mechanism the concentricity of the pump case with the shaft is maintained. (4) There is a circular T-shaped channel formed in the face of the flange of the pump-case into which the heads of the bolts (for attaching the two flanges and thereby attaching the motor and pump-case) fit freely, being formed so as to move easily all round the T-shaped channel. The other ends of these bolts pass through holes in the flange of the motor and are secured thereto. The result is that "when the nuts are not tightened up the bolt-heads allow of the (pump-case) flange No. 3, and consequently the pump-case, being turned or swivelled so as to bring the suction and delivery passages to any desired angle without interference with the motor." But when the pump is to be put to use the pump-case is driven home and the nuts are screwed on. The position of the suction and discharge pipe is thus fixed for the time, but may be altered as often as required by merely loosening the bolts and thus enabling the flange of the pump-case and the pump-case itself to be swivelled.

It was not disputed in argument that this is a patent for a combination of parts which are all old to produce a certain useful result, viz., an easy and speedy mode of shifting the position of the suction and discharge pipes to any angle that may be wanted for the time.

The question then arises, what constitutes in law an infringement of such a patented combination? Lord Cairns (Chancellor) said in *Harrisons* v. *The Anderston Foundry Company*, 3 R. (H. of L.) 55:—"If it is clear that the patent is for a combination and nothing but a combination, there is no infringement unless the whole combination is used, and it is in that way immaterial whether any or which of the parts are new." Lord Chelmsford in the same case said —"If a patent is solely for a combination, nothing is protected by it—and consequently nothing can be infringed—but the use of the entire combination." If the patentee claimed not only the combination but also some of the parts as being novel and of his invention, then there might be infringement by the use of the novel parts thus claimed although the combination were not used. But unless some of the parts are claimed by the patentee as of his invention the law thus stated by Lord Cairns and Lord Chelmsford is quite settled, and is distinctly applicable to the present case.

I am not, however, to be understood as saying that an infringer by merely omitting some immaterial part of the mechanism described in the specification, or substituting for such immaterial part some mechanical equivalent, will escape conviction if his machine contains all the essential and characteristic features of the patented combination.

But if in the machine of an alleged infringer any material part of the patented combination is omitted, then the combination used by the alleged infringer is a different combination from that of the patentee. The omission of one material part may be an improvement or the reverse. The possibility of dispensing with it may be a valuable discovery, or the omission may be made merely for the purpose of avoiding an infringement, but in either case the combination of the patentee *minus* an essential part of it is no longer his combination.

Now, it appears to me that the one great characteristic and essential feature of the pursuer's invention is the mechanism by means of which he secures that the pump-case flange, and the pump-case itself, can be made to turn all round without interfering with the driving engine, for it is this mechanism which enables him to fix the position of the suction and discharge pipes at any angle that may for the time be required, and thus to attain the effect which is the object of the invention.

The kind of infringement which the pursuer endeavoured to establish by evidence was that the defenders instead of using the circular T-shaped channel on the face of the pump-case flange into which the heads of the bolts are inserted so as to travel all round the circle when the nuts are not tightened up, dispense with that mechanism and substitute for it a number of bolt-holes through both flanges supposed to correspond so exactly with one another as to be interchangeable, and thus to give the means by turning round the pump-case and its flange of fixing suction and discharge pipes at as many definite angles as there are sets of bolt-holes.

Supposing this to have been successfully achieved by the defenders, it would be obviously an arrangement very inferior to the pursuer's in many respects as regards practical utility and convenience. But that would not prevent its being an infringement if it involved an adoption of all the essential features of the pursuer's combination, and obtained the desired result though working more clumsily. But I think such an arrangement would be essentially different from the pursuer's, and would not realise the results which he seeks to attain. Such an arrangement would not enable the pump-case flange to be fixed at any and every possible angle, or in other words to be swivelled. The requisite change could not be made without detaching the pump-case from the motor, and therefore could not fulfil one condition of the pursuer's arrangement, that the change of angle is to be made "without interfering with the driving-engine."

But in point of fact no such arrangement as that ascribed to the defenders was ever accomplished by them, nor as far as I can judge is it ever likely to be accomplished so as to attain the object of the pursuer's invention even imperfectly, and it is only necessary to deal with it in judgment to prevent its being supposed that any arrangement will be an infringement of the patent which does not adopt the combination claimed by the pursuers in all its essential parts.

I forbear to comment on the rest of the evidence for the purpose of showing that the machines proved to have been actually made by the defenders are essentially different from the machine or combination patented by the pursuer both in the means employed and in the object attained. This task has been so satisfactorily performed by the Lord Ordinary that it would be a waste of time to go over the same ground. I agree in the Lord Ordinary's judgment in all respects.

Lord Mure—I concur with your Lordship on both points with which you have dealt, namely, the nature and subject of the patent, and the question of infringement, which are the only two points that were brought under our consideration. The patent, it is clear, is one for a new combination of things which are well known in relation to the trade in order to produce a particular result, and it is described as being an arrangement by which the suction and discharge pipes of the pump are made to swivel so that those pipes can be set at any angle without interfering with the driving-engine. Therefore the essence of the patent appears to me to be arranging these pipes in such a way that the angle at which the machine may be working at the time may be shifted without interfering with the driving-engine. Now, that being the nature of the patent, I think it is quite clear upon the evidence that the pumps furnished to the trade by the defenders do not amount to an infringement of that patent, because in the evidence adduced by the various witnesses who have got pumps from the defenders it is quite plain that the pumps they make will not do either of those things. They cannot be set at any angle in the way in which they are turned out in the defenders' works without interfering with the driving-engine. They are sent out in a particular shape. It is only at certain angles that these pumps can work, and it was admitted, I think, in the discussion, and it is plain upon the evidence of several engineers who were examined, and particularly the parties from the Forth Bridge where such pumps are required, that if you wish to put them at any other angle than the one, so as to make them work at any other angle than the one *ex facie* of the machine, it would require time to take them to pieces, and would interfere with the driving-engine. Therefore it is not the same combination as explained upon the evidence, and you cannot make any alteration upon these angles without a distinct interference with the motive power.

Lord Shand—I concur with your Lordship in thinking that the judgment of the Lord Ordinary is sound and should be adhered to. The patent, as the Lord Ordinary has found, and as your Lordships have also said, is one for a combination, and the particular mechanism which the patentee employs is so employed with the result of producing a swivelling pump—a pump "with the suction and discharge pipes to swivel so that the suction and discharge pipes can be set at any angle without interfering with the driving engine." On the question of infringement I think there is evidence led of only three or four instances of the sale by defenders of pumps that are said to be infringements of the patent. In regard to all of them I think the evidence shows, in the first place, that the particular pumps complained of were not bought as swivelling pumps or for the purpose of swivelling. They were not sold as swivelling pumps or for the purpose of swivelling. They were never used as pumps of that kind by the persons to whom they were sold, and, perhaps more important than all, they were not capable of being so used as they were sold. That being the state of the evidence, it seems to me to be perfectly clear that there is no infringement whatever of this patent. The pursuer's patent is for a pump that will swivel. In my opinion the evidence shows that every one of the pumps which were sold by the defenders or supplied by the defenders were fixed pumps which would not swivel, and which therefore could not possibly be properly regarded as infringements. It has been said, no doubt, that if a number of changes were made upon the pumps so supplied—admitting as they did of changes which might be more or less easily made—they might be altered so as to be an infringement of the patent. I should say, in the first place, that I think very material changes would require to be made in order to make them swivelling pumps; but it is enough for the decision of this case that the pumps as supplied, without considerable alteration, could not possibly be made to swivel, and I speak particularly of the more recently supplied pumps—those which alone were made and furnished after the complaint was made by the patentee. Those which are called D-shaped pumps are obviously of such a construction that the person supplying them has in the most distinct manner possible disclaimed in the very construction of the pump any purpose whatever to infringe the patent.

If it had appeared that the defenders had supplied pumps with flanges such as are described in the pursuer's patent, made with holes precisely corresponding to each other at frequent intervals so as to admit of the pump being swivelled to a great many different angles, even although the T-bolt and slot were not there,—whether that would have been an infringement of this patent or not is, I think, a question attended with very great delicacy indeed. In such a case the flanges would be the same. The pump-case might be turned round to any required angle—for in the illustration I am putting I assume that holes would be so frequently placed that they might be suitable for all practical purposes for which a swivelling pump is required. And if such a pump had been made, and had been the subject of complaint in this action, the question that would have arisen would have been, whether the absence of the slot and T-shaped bolt prevented the pump being regarded as an infringement. That again would raise the question whether the annular slot with the T-shaped end and the bolt fitting into it was an essential feature of the patent. Now, upon that matter I desire to reserve my opinion. I see the Lord Ordinary says—"If you had, for example, a slot cut upon the outside of one of the flanges instead of on the inside, or if you had a number of clamps shaped like a vice to clamp the two flanges together, but capable of having the screws relaxed while the one flange was being turned round, I should have little doubt that a court of law would hold

this to be a mere mechanical variation;" and I confess I am disposed to take the view his Lordship does, that in that case the mode of fastening there suggested would have been a mere mechanical variation. His Lordship adds—"Supposing the pumps made by the respondents were intended to be moved round to definite angles by taking out the bolts and changing the bolt-holes, it is a very different question whether a pump so made capable of being turned only to definite angles determined by the number of bolt-holes through which the bolts pass would be a mechanical variation of this design." His Lordship then indicates an opinion that it would not. On that point the leaning of my opinion is different, and I desire to reserve my opinion as to whether that would not be a case of infringement, as being substantially the taking of the whole combination though mechanical equivalents were used for parts of it.

But looking at the case upon the question that is before us, I am of opinion, as I have said, that there is here no case made out of infringement by sale of the particular machines with which we have to deal, and therefore I concur with your Lordship in affirming the judgment of the Lord Ordinary.

Lord Adam concurred.

The Court adhered.

Counsel for Pursuer and Reclaimer—Lord Adv. Balfour, Q.C.—Guthrie-Smith—Young. Agents—Adam & Sang, S.S.C.

Counsel for Defenders and Respondents—Pearson—Ure. Agents—Yeaman Fodd & Simpson, S.S.C.

Friday, March 5.

FIRST DIVISION.

[Lord Trayner, Ordinary.

MACKINTOSH *v.* MACKINTOSH.

Superior and Vassal—Implied Entry—Casualty Conveyancing (Scotland) Act 1874 (37 *and* 38 *Vict. c.* 94), *sec.* 4.

Held, in an action (under sec. 4 of the Conveyancing Act 1874) at the instance of a superior for declarator and for payment of a casualty of composition, that a disponee who had taken infeftment upon a disposition contained in a testamentary settlement by the vassal last entered and infeft, was only liable in payment of such casualty as regarded one-half of the lands, in respect that to the other half he was heir *alioqui successurus*, and as such entitled to be entered to that half on payment of relief.

This was an action under the Conveyancing Act of 1874, sec. 4, sub-sec. 4, at the instance of Charles Fraser Mackintosh, superior of the lands of Dalmigavie and others, in the county of Inverness, against Campbell Keir Mackintosh, proprietor of these lands, for declarator that in consequence of the defender's infeftment therein, and of the death of the vassal last entered and infeft under the law as it stood prior to 1874, or of one or other of these events, a casualty of one year's rent became due to the pursuer as superior on April 28, 1882, the date of the defender's infeftment as after mentioned. The pursuer estimated the casualty claimed at £300.

Æneas Mackintosh, the vassal last entered and infeft in the lands of Dalmigavie and others, died in 1882 leaving a testamentary settlement by which he conveyed these lands to his nephew, the defender, then called Campbell Keir, upon certain conditions, and, *inter alia*, that he should take the name of Mackintosh. Campbell Keir assumed the name of Mackintosh, and completed his title to the lands of Dalmigavie and others by notarial instrument proceeding upon the testamentary settlement, and recorded in the Register of Sasines 28th April 1882.

In answer to the pursuer's demand the defender stated that Æneas Mackintosh, who was his uncle, died without issue; his heirs in heritage were the defender as eldest son of one sister, and a grand-nephew, the descendant of another sister. If Æneas Mackintosh had died intestate the defender would have succeeded to one-half of his heritage as one of two heirs-portioners.

The accuracy of this averment was not disputed.

The defender pleaded—"(2) The defender is only liable in payment of composition as regards one-half of the said lands, in respect that he is one of two heirs-portioners of the said Æneas Mackintosh, and as such entitled to be entered as regards the other half of said lands upon payment of relief."

The Lord Ordinary (Trayner) on 15th July 1885 pronounced an interlocutor, by which he found and declared in terms of the declaratory conclusions of the summons, and appointed the case to be put on the roll for further procedure.

"*Opinion.*—[*After stating the facts and the defender's contention*]—The title under which the defender holds is a singular title. He might have made up a title to one-half of the lands in question as heir, and claimed an entry in that character. If he had done so and registered his service, it would not have been open to the superior to object that the defender had also a title by conveyance, or the defender might have got his co-heir to make up a title with him to the whole subjects, and both have entered as heirs of the deceased on payment merely of relief without the superior being entitled to object that this was merely a device, to be followed after the entry by a conveyance by the co-heir in favour of the defender. Or again, if the defender had chosen to hold on the conveyance as a personal title until the superior made his demand, he might then have claimed on production of his service to enter as heir to one-half of the lands. But the defender did not adopt any of these courses. He made up his title as a singular successor and took infeftment in that character, and it is a singular title which he now (by implication) presents to the superior for confirmation. I think the superior is entitled to take the title as presented to him and to make the demand which that title infers, but as the superior is not entitled to object that an heir claiming an entry has a title also by conveyance, so in my view he is not bound to give effect to the statement by one whose title is that of a singular successor, that he has also a title as heir which he has not