Judgment of the Lords of the Judicial Committee of the Privy Council on the Appeal of The Consolidated Car Heating Company v. Came, from the Court of King's Bench for the Province of Quebec (Appeal Side); delivered the 5th August 1903.

Present at the Hearing:
LORD DAVEY.
LORD JAMES OF HEREFORD.
LORD ROBERTSON.
SIR ARTHUR WILSON.

[Delivered by Lord Davey.]

The Appellants are the assignces and proprietors of a Canadian patent (No. 26,001), dated the 4th May 1887, and granted to one Sewall for improvements in hose coupling, and they sue the Respondent for infringement of their patent. The Respondent denies infringement and also raises other defences. Their Lordships will first consider the issue of infringement. If that is decided in the Respondent's favour, it will be unnecessary to consider the other issues.

The patented invention is chiefly used for t purpose of heating railway cars by steam. It is an extremely ingenious and, apparently, simple contrivance for uniting the ends of the pipes or hose attached to two cars so as to secure a steamtight fastening which will however permit an automatic separation of the two ends when the cars are uncoupled. The patentee thus describes the nature of his invention:—

"The coupling herein to be described langs by gravity, and is provided with locking devices 27080. 100.-8/1903. [59] A

"which keep the two halves locked together in all positions except when turned upward at the centre."

Each half is composed preferably of a single piece of metal having a neck for the passage of the steam, &c., and a broad flat extension on one side with an inturned lip or flange, and on the other side a groove to receive the flange of the companion half. Then follows a passage on which the controversy in this case turns: "At "the lower end of the meeting face of each half " of the coupler a rib is provided extending half "the width of said meeting face, and for the "remaining distance the face is cut away to " present a recess which receives the rib of the " companion half to thus form, in a measure, a "hinge-joint upon which the two faces of the "coupler are turned to disengage them from "each other." The patentee then gives a more detailed description of the parts of his contrivance by reference to the drawings, and thus describes their operation:-

"The two halves of the coupling being placed opposite to each other, as shown in Fig. 2, it will be seen that the extension a of one-half overlaps the opposite side of the other half, the flange a^1 entering the groove b, and the rib c entering a recess formed in the opposite half corresponding with the recess c^1 , while the rib formed upon said opposite half enters the recess c^1 .

"It will thus be seen that the two halves are firmly locked together, and capable of being disengaged only by moving them upward on the ribs c, c, turning in the grooves c^1 , c^1 , which serve as a hinge-joint or connection.

"The hose or pipe to be coupled is attached to the neck A and the coupling locked together hangs by gravity.

"The extension a and its flange a^1 entering the groove b^1 abut the halves together, prewriting any disengagement thereof by downward or lateral movement, but permitting the said halves to be disengaged by turning them upward on the hinge-joint as above described. They will thus become disengaged themselves when the cars on which they are situated become uncoupled."

It appears therefore that the elements in the patentee's complete combination are (1) the body portion with the upwardly pointing neck; (2) the broad flat extension on one side; (3) the flange at one edge of the broad extension; (4) the groove on the opposite side to receive the flange; and (5) the rib extending halfway across the lower end of the meeting face, with a corresponding recess.

There are three claims. It is agreed that by the first two claims the patentee claims in different language the entire combination. The third claim is as follows:—

"(3.) In a two-part hose coupling composed of like halves or portions, each of which has a free and unobstructed passage through it directly from end to end, which passages co-operate together to form a longitudinal unobstructed passage directly through the hose coupling, combined with locking devices as described, upon each side to lock the said halves or portions together as set forth."

It is scarcely disputed and, in the opinion of their Lordships, it is established by the evidence that the Respondent's coupler (called the Gold coupler) is in all material respects the same as the Appellants' with the omission of the rib and corresponding recess on the lower side of the meeting face, or (in other words) it has the elements which have been numbered (1), (2), (3), and (4), but has not that numbered (5) or any

mechanical equivalent for it. It has, however, what is called a "rocking gasket" on each orifice which (the Respondent contends) compensates for any inconvenience caused by the omission of the rib. And it is argued that the Respondent's coupler is a different and a new way of achieving the same end as that for which the patented combination is designed. The Appellants put their case in two ways. First they say that the third claim is for the subordinate combination of (1), (2), (3), and (4). And secondly, they say that, if that be not so, the rib and groove form an auxiliary but not an essential part of their combination, and that the Respondent having taken the first four elements has taken the substance or, as it is sometimes called, the "pith "and marrow" of their combination, and has therefore infringed their patent. The Respondent denies both these propositions. Mr. Justice Pagnuelo decided both questions in favour of the The Court of King's Bench on Appellants. appeal, by an unanimous judgment delivered by the learned Chief Justice, decided both questions in favour of the Respondent, and by their judgment of the 29th May 1901 allowed the Appeal and dismissed the action with costs.

On the question of construction the argument was narrowed to the question whether the expression "locking devices as described" in the third claim includes the rib and corresponding groove. In order to answer this question one must consider what part this element of the combination bears in the operation. The only passage in the specification in which the expression "locking devices" is used is in the paragraph containing a general description of the nature of the invention which is expanded in the three following paragraphs already quoted. The patentee there speaks of "locking devices which keep the two "halves locked together," and does not mention

either the rib or any other details. This paragraph containing only a general description does not appear to their Lordships to afford them any assistance. In his description of the rib the patentee speaks of it as forming "in a measure" a hinge-joint on which the two faces of the coupler are turned to disengage them from each other. This describes one office of the rib, but does not exclude other uses of it. When the mode of operation is described the patentee, after showing how the flange a^1 enters the groove b and the rib c enters the corresponding groove on the opposite half, adds "it will thus be seen that "the two halves are firmly locked together." Their Lordships think that, according to any fair interpretation of this language, the rib c is in this passage described as bearing a part in the process of engaging the two halves and causing them to be firmly locked together, as well as in the disengaging of the two halves. The evidence of the working of the invention confirms this view. It is shown by witnesses of the Appellants as well as those of the Respondent that the ribs (1) act as a guide to the workman engaged in coupling or locking the two parts together, and (2) bring, and afterwards retain, the coupler heads in perfect alignment so as both to make and keep a steam-tight joint, and also to prevent the parts jamming, and thereby to facilitate the disengagement. Without reading it their Lordships refer to McElroy's evidence at page 498, Gallagher's at page 349, and Fraser's at page 315.

Their Lordships think it would be too narrow a construction to put on the words "locking "devices as described" to confine them to the actual clamping or engaging parts, and that, according to any fair interpretation, they should be held to include everything described in the specification which aids and facilitates the process

of locking and the retention of the parts when locked in a proper working position. Canadian Patent Act (Ch. 61 of the Revised Statutes of 1886) requires (Section 13) the patentee " to state clearly and distinctly the contrivances " and things which he claims as new, and for the "use of which he claims an exclusive property " and privilege." There is not the slightest indication to be found in the body of the specification that in the contemplation of the inventor the ribs and corresponding grooves could be dispensed with in operating the invention, and their Lordships cannot hold that there is any clear and distinct claim to the subordinate combination. In the present case there is no room for the argument that something different must be intended to be claimed in the third claim, because admittedly the first and second claims are both for the entire combination.

The second point made by the Appellants, viz., that the Respondent has taken the substance of the invention, involves considerations of some nicety and great difficulty. Their Lordships cannot adopt the view apparently taken by the learned Chief Justice that the matter is to be determined simply on reading the specification. They think that, according to established authority, the Court is bound to decide as a fact whether the alleged infringer has taken the substance of invention, and in forming an opinion on that question to have regard to the evidence as to the existing state of knowledge on the subject at the date of the patent and as to the operation of the machine. The law on the subject was stated by Lord Cairns in the House of Lords in Clark v. Adie (2 Ap. Ca. 315, at pp. 320, 321) and subsequent cases are only useful as illustrating and expanding what was there said. His Lordship, after describing the

apparatus there in question, which was one for an improved horse-clipper, said there were three ways in which such an apparatus might be infringed. First, the infringer might take the whole instrument from beginning to end, in which case no question could arise. Secondly, the infringer might not take the whole instrument, but he might take a certain number of parts of the instrument described, "and there the question would be, "either for a jury or for any tribunal which " was judging of the facts of the case, whether "that which was done by the alleged infringer "amounted to a colourable departure from the " the instrument patented, and whether in what "he had done he had not really taken and "adopted the substance of the instrument "patented; and it might well be, that if the "instrument patented consisted of twelve different "steps, producing in the result the improved " clipper, an infringer who took eight or nine or " ten of those steps might be held by the tribunal " judging of the patent to have taken, in sub-" stance, the pith and marrow of the invention, "although there were one, two, three, four or "five steps which he might not actually have "taken and represented upon his machine."

The third way in which an apparatus might be infringed (said Lord Cairns) was the case which their Lordships have already discussed, where the patentie claims a part or parts of his larger combination as a separate head of invention. But then, he said, the invention must be described in that way, and it must be made plain to ordinary apprehension upon the ordinary rules of construction that the patentee had in his mind and intended to claim protection for those subordinate integers.

In *Proctor* v. *Bennis*, 36 Ch. D. 740, Lord Justice Cotton (at p. 756) said: "In my opinion "omissions and additions may be very material

"in considering whether, in fact, the machine of the Defendant is an infringement of the combination which the Plaintiff claims; but if the Defendant really has taken the substance and essence of the Plaintiff's combination, the mere fact that certain parts are omitted or certain parts added cannot prevent his machine from being an infringement of the Plaintiff's patent."

Not to multiply quotations, their Lordships will only cite further what was said by a very learned Judge in Scotland, where the patent law is the same as in this country. In Gwynne v. Drysdale (3 R. P. C. 65) Lord President Inglis said: "I am not . . . 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 im-" material 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 com-"bination 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 dis-"covery, 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."

Their Lordships think it is not necessary for the Respondent to show that the omitted part was an essential element of the combination in the sense that the machine would not work without it. But it must be a material element and not a mere detail in the complete machine which may be varied or omitted altogether without serious detriment to the successful working of it. Mr. Moulton, in the course of his argument, produced the two halves of a Sewall coupler from which the ribs had been filed or sawn away. And he showed by ocular demonstration that the two halves without the rib would lock and remain locked by gravity, and when turned upwards automatically disengage. It was not denied on behalf of the Respondent that this was so experimentally, but it was said that in practice the Sewall coupler could not be relied on to work successfully without the rib.

Their Lordships think that this contention is borne out by the evidence. Mr. McElroy, the Consulting Engineer of the Appellants, who gave his evidence with great candour and fairness, after showing to the Court the same experiment as was shown to their Lordships, says (p. 448): "I desire to say that in all of "those constructions of couplers in which the " hinge-joint is omitted there is liable to be, and "will be, perhaps one time in 20 or once in 50, "a failure in separating automatically, that " failure being due to the fact that the inturned "lips on the two couplers forming the combina-"tion will not leave the grooves at the same "time, and one is therefore liable to hook into "the groove on the opposite coupler and may " possibly, one time in 50, as I have already "stated, fail to disconnect." Evidence was also given, on behalf of the Defendant, that the Safety coupler (which operated in the same way as the Sewall coupler without the rib) was used on the Illinois Central Railroad for about two years, and ahandoned for the Sewall coupler, and that the same coupler was used for a yearand-a-half on the Northern Pacific Railread and abandoned for the Gold coupler. The Respondent, as already mentioned, centends that the 27080.

device of "a rocking gasket" in the Gold coupler compensates in a large measure for the want of the rib by securing a steam-tight joint and preventing the friction and consequent wear and tear of the gaskets. The evidence of Mr. Gold (not the inventor of the Gold coupler) contains the following passage (p. 587). Asked whether the Safety coupler and the Martin coupler were commercially successful, he says: "No, not exactly. The trouble "with the couplers was that they had a "fixed gasket and could not move, and they "had no hinge to always bring them straight " together, and no hinge to always break them "evenly, and the result was that it did not " work well. It was not what we would call a "commercial success." This answer, so far as relates to the use of the "hinge" or rib, confirms the statements in the Appellants' catalogues which were put to Mr. McElroy in crossexamination and adopted by him (pp. 498, 499). Their Lordships have not to say whether Gold's "rocking gasket" and certain minor alterations made by him in the shape of the flanges (which are immaterial for the present purpose) adequately compensate for the omission of the rib, although, judging from the use of the couplers on the Northern Pacific and other railroads in the United States (Gold's evidence at p. 220), it would appear to be so in some measure at least. But they come to the conclusion that the hinge or rib was a material element in the Appellants' combination, and the use of it materially contributed, if it was not essential, to the commercial success of their coupler.

In determining the question whether the substance of the invention is taken, it is important to consider the position of the patent with reference to the previous knowledge on the subject. For if the merit of the invention

consists in the idea or principle which is embodied in it, and not merely in the means by which that idea or principle is carried into effect, a machine which is based on the same idea or principle may still be an infringement although the detailed means adopted for carrying it into effect may be somewhat different. Their Lordships, on this point, adopt the following statement of the Appellants in their factum in the Court of King's Bench which their Lordship's think is borne out by the evidence. (p. 839). "The Plaintiff" they say "has not claimed that "its patent is a pioneer patent. Gravity couplers "were old; straight port couplers of automatic "disengagement were old; but it has been shewn "that Sewall was the first to combine successfully " all these features in a coupler capable of main-"taining a steam-tight joint against internal "pressure. It was the first coupler that really "met the needs of the railway world." Giving Sewall full credit for having solved a problem which his predecessors had failed to solve, he cannot be said to have embodied any new ilea or principle in his invention. The merit of it lies in the new combination of known features, and the fact remains that the use of the rib was a very material element in the commercial success of Sewall's solution of the problem. It is not proved that his coupler would have achieved that success without it, or that he ever contemplated the omission of it in operating his invention.

Their Lordships therefore have come to the conclusion that the Appellants have failed to prove that the Respondent has infringed their patent, and they will humbly advise His Majesty that the Appeal should be dismissed. The Appellants will pay the costs of it.

