

Privy Council Appeal No. 63 of 1933.

The Lightning Fastener Company, Limited - - - *Appellants*

v.

The Colonial Fastener Company, Limited, and others - - - *Respondents*

FROM

THE SUPREME COURT OF CANADA.

JUDGMENT OF THE LORDS OF THE JUDICIAL COMMITTEE OF THE
PRIVY COUNCIL, DELIVERED THE 31ST MAY 1934.

Present at the Hearing :

LORD BLANESBURGH.

LORD TOMLIN.

LORD WRIGHT.

LORD ALNESS.

SIR LANCELOT SANDERSON.

[*Delivered by* LORD TOMLIN.]

This appeal relates to a Canadian Patent Nod. 210,202 and dated the 5th of April, 1921, embodying the invention of one Sundback and owned at all material times by the appellants.

The action out of which the appeal arises was begun by the appellants against the respondents in the Exchequer Court of Canada to restrain an alleged infringement of the patent.

In the Exchequer Court the appellants succeeded. The patent was held to be valid and to have been infringed by the respondents' machine. An injunction was granted and a reference as to damages was directed.

On an appeal to the Supreme Court of Canada this judgment was reversed and the action was dismissed, apparently upon the ground that if widely construed the claims in question lacked subject-matter and if narrowly construed they were not infringed.

In the specification the inventor is said to have invented a certain new and useful improvement in machine and method for producing straight and curved fastener stringers.

Fastener stringers are strips of tape or of other flexible material having interlocking members (called the fastener members) attached so that by means of a sliding-cam device mounted on and linking together two stringers there is formed, suitable for use on garments and other articles, a fastener which can be readily opened or closed by moving the sliding device backwards or forwards.

The opening paragraphs of the specification are as follows :—

“ This invention relates to a machine and method for producing straight and curved fastener stringers, such as shown in Letters Patent of United States No. 1,219,881 and also the curved stringers shown in application for Letters Patent of Canada No. 219,986.

By the method herein disclosed, fastener stringers are made embodying a predetermined number of interlocking jaw members, either straight or curved, which simply have to be cut apart and assembled, one curved stringer with varying spacing of the interlocking members, combining with a succeeding one to form a complete curved fastener.

A special type of automatic machine forms and sets these fastener members on the tape in separated groups of a predetermined number each, either straight, or wholly or partly curved, so that the tape can be cut apart to provide stringers of desired length and design, according to the purpose for which intended.

The uses of this fastener are very diversified, straight fasteners as shown in said patent being used on corsets, money belts, footwear, clothing, stretchers, tents and other closures of various kinds, while curved fasteners as shown in said application are used for automobile curtains, hand hole closures, etc., where by reason of the curve, a wider or more convenient opening is obtained than with an equal length of straight fastener. In order to produce a curved fastener which will be easy to apply and properly function, the spacing of the members on the outer stringer should vary relatively to the spacing on the inner stringer, while on a straight fastener the spacing is the same.

A further feature of novelty resides in the construction whereby a punching for the jaw member is completely separated from the blank and is then immediately replaced therein so that it can be further fed for the subsequent forming and setting operations, while at the same time being protected from tool marks. Owing to the necessity of making the fastener members as nearly alike as possible, in order that they will lock and unlock properly when set on the tapes, it is necessary to have the utmost accuracy in the shaping and setting operations subsequently to the punching out from the blank, and by causing the punching to be replaced in the blank and controlled thereby, it is possible to apply pressure to the punching through the blank so as to hold the punching firmly during the shaping operation, and then by a further side punching operation through the blank, the jaws are firmly set on the carrier element or tape without leaving any tool marks upon the jaw members themselves. The avoidance of tool marks on the jaw members is of advantage, since it cheapens the subsequent finishing operations in the assembled fastener or stringer.”

The specification then describes certain accompanying drawings embodying full details of the machine which the appellants are operating under their patent.

The body of the specification concludes with these words :—

“ The broad principles of the invention can be carried out otherwise than as herein specifically shown and the invention is not to be limited except as required by the scope of the appended claims.

What I claim is :— ”

There then follow twenty claims of which seven only are alleged to have been infringed. Those seven claims are in the following terms :—

“ 1. A machine for making fasteners having means for feeding a tape step by step, means for feeding fastener members into position to be compressed on to said tape, and means for compressing the fastener members thereon.

2. In a machine as described in claim 1, means for feeding a blank strip, means for cutting the members therefrom, and means for forming said members preparatory to feeding them into setting position.

3. In a machine as described in claim 1, means for feeding a jaw member into position to be set on the edge of a tape, and side punches for compressing the jaws thereon.

* * * * *

7. In a machine as described in claim 1, controlling means for a corded edge tape comprising frictional tension means engaging the tape at one side of the fastener-setting devices, and a grooved, roughened, ratchet-driven feed roll at the other side.

8. In a machine as described in claim 7, controlling means for feeding the tape step by step for a predetermined number of operations and then feeding the tape an increased distance to complete one cycle.

* * * * *

10. In a machine as described in claim 1, means for forming attaching jaws on one end of the fastener member and a socket and projection on the other end.

* * * * *

19. The method of making fasteners consisting in affixing jaw members in spaced groups on a continuous stringer in predetermined number and spacing, and cutting the stringer so that pairs of said groups co-operate in forming a fastener.”

The machine described in the patent, and in fact operated by the appellants, is a machine which forms out of a metal strip fed into the machine the fastener members and also feeds the members when formed to and fixes them upon a tape with a beaded edge at predetermined distances from each other and in spaced groups of predetermined numbers so that the stringers when formed can be cut into lengths, each length containing the required number of fastener members. The fastener stringers so formed can then, by means independent of the machine, be linked together in pairs by the sliding device so as to form completed fasteners.

The feeding of the metal strip into the machine is done from back to front by a step-by-step movement, so that by appropriate timing the strip is brought under the several punches which form and shape the fastener members and so that the fastener

members, which when formed are retained in position in the strip, are carried to the tape on which they are fixed when they reach it.

The punches forming and shaping the fastener members are three in number. The first punch, operating from above, cuts out from the centre of the strip the main piece which is to form the member, but by means of a device worked from below the strip, the cut-out piece is retained or replaced in position in the strip and, surrounded by the uncut portions of the strip, is carried on by the step-by-step movement of the strip to the second punch, which from above severs from the strip and thrusts to waste a triangle from between the legs or jaws of the fastener member, so that such jaws are pointing lengthwise of the strip in the direction towards which the strip is moving. The strip next moves on, still carrying the fastener member under a third punch which forms a socket and projection in the end of the member furthest from its jaws. It is by means of the sockets and projections that the fastener members on a linked pair of fastener stringers are interlocked.

After the third punch is operated, the step-by-step movement of the strip, still carrying the formed member, is continued until the jaws of the formed member enclose the beaded edge of the tape, which is fed upwards transversely of the plane of the jaws, also by a step-by-step movement. As soon as this position is reached, side punches compress the jaws round the beaded edge of the tape, thus fixing the member firmly to it, and the tape moves upward carrying the member with it clear of the strip, the waste parts of which are then severed by appropriately placed cutters. It is to be noted that in compressing the jaws into the tape the side punches operate directly only against the sides of the strip, which ultimately become waste and are interposed between the side punches and the jaws of the member. The advantage of this is said to be that it avoids tool markings on the members. It is also to be noted that the machine contains devices by means of which the member, from the moment of its formation until it is fixed on the tape, is held firmly in position in the moving strip out of which it is cut. This is said to be of importance in order to secure accuracy of spacing of the members on the tape.

There is no doubt that the machine as operated by the appellants is a useful machine containing integers, the element of invention in some of which is not questioned, and it has been commercially successful.

In this action, however, the question to be determined is not as to the ingenuity or usefulness of the machine, but as to the validity of the claims of the patent alleged to be infringed when properly construed and whether such claims if valid have in fact been infringed.

The respondents in effect say that properly construed the claims are so wide as to be either ambiguous or lacking in subject-matter and in either case are invalid or that if they ought to be construed narrowly they have been anticipated or have not been infringed by the respondents.

Before dealing with the questions which fall to be considered it will be convenient (1) to make some reference to the prior art, and (2) to say a word about the respondent's machine.

As to the prior art four specifications were relied upon by the respondents.

The first is Stover No. 240477 of 1881 for a machine for manufacturing metallic strip fencing. It had a means for feeding into one side a metal ribbon from which punchings were cut, and also means for feeding through the machine another strip upon which the punchings were clamped. The feeds were step-by-step feeds.

The second is Brainard No. 292467 of 1884 for a machine for making flat metal barbs and attaching them to wire. This machine had a means for feeding a metal ribbon from which punchings were made into the machine from the left and also means for feeding a wire into the machine from the rear. The metal ribbon is fed under a power press punch head carrying tools which punch two jaws from the ribbon. The ribbon then feeds over the wire, the end of the ribbon is cut off and the two jaws are clamped round the wire.

The third is Major No. 525914 of 1894. This was a machine for making and carding hooks and eyes. This machine had fed into it two reels of wire, one used to form hooks and the other to form eyes. Pieces of wire were cut off and shaped into hooks or eyes as the case might be. The hooks and eyes when formed were stapled on to a ribbon of paper or cloth also fed into this machine. The paper is fed by a step by step movement with a longer step after each group of 12 hooks and eyes, so that the paper could be cut off between the group.

There is no evidence of any user of any of these three patents.

The fourth is Aaronson No. 107456 of 1907. This was "a machine for setting channels on tape." This machine was used to fix fastener members on tape, but the fastener members were made in separate machines, and the resulting fastener consisted of one stringer with eyes and another stringer with hooks. The two stringers were pulled apart by hand, but closed by a slide.

The machine itself had a tape fed to it by a process not dissimilar to the tape feeding process in the appellants' machine. There was a step by step movement, but no means in the tape feed for producing group spacing. This result was obtained in another way. The fastener members having been made in another machine and afterwards finished by "tumbling" were placed by hand in a magazine which was then fed into the

Aaronson machine step and step and brought to the neighbourhood of the tape which was pulled into position between the legs or jaws of the member. There the legs or jaws were compressed on to the tape. If spacing between groups was required, this was effected by leaving, when filling the magazine by hand, spaces between groups of members.

The respondents' machine which appears to have been evolved independently and without knowledge of the appellants' machine is one which makes a fastener stringer by forming and shaping the fastener members out of a strip of metal fed into the machine and attaching them to a tape also fed into the machine.

There are a number of mechanical differences between the two machines. The main differences between the two machines are these :—

(1) The respondents' machine shapes the projection and socket on the member before the member is cut out of the strip, with the result that when cut out the member has a straight and not a bevelled edge. The appellants' machine cuts out the member first and shapes the depression and projection afterwards, so that the member has a bevelled edge.

(2) In the respondents' machine the member when cut out is not as in the appellants' machine retained in and carried forward with the strip to a position astride the tape, but is dropped on to a slide at a lower level and is by such slide carried towards the tape.

(3) In the respondents' machine the metal strip is never clamped but has free and easy movement through the machine, while in the appellants' machine the strip is after every step clamped top and bottom and edge to edge.

(4) In the respondents' machine the side punches for clamping the members on the tape are really swinging pincers actuated by the member being thrust between them by the slide and are not mechanically driven punches as in the appellants' machine with the result that the members are only lightly clamped on to the stringers by the respondents' machine, and the stringers have to be finished in a second machine to secure that the members are securely clamped and that their relative positions to each other are properly adjusted ; and

(5) The arms of the pincers in the respondents' machine operate directly upon the members while in the appellants' machine the sides of the metal strip interpose between the member and the side punches.

The first question to be considered is the construction of the claims. Claims 2, 3, 7, 8 and 10 are all linked directly or indirectly with claim 1, so that in regard to these six claims the construction of claim 1 is the dominant question.

The respondents put their case on claim 1 in two ways. First they say that claim 1 is in the widest possible terms and covers every sort of machine which could be used to make fastener

stringers and which had the three integers mentioned in the claim, the novelty of each of which integers they deny. They point out that the machine is not in terms particularly described nor are the means to be employed in relation to the three integers specified. Upon this footing they say that the claim is so wide as to be ambiguous or alternatively that it can only mean a claim for doing by one machine a number of well-known operations which in the past have been done separately, and that there is no inventive quality in the idea of putting into one machine a series of operations without at any rate indicating with some measure of definitiveness how it is to be done, for it is, they say, obvious that if it can be done it would be desirable to do it.

Secondly the respondents say in the alternative that claim 1 is to be read as confined to machines which do not themselves make the fastener members and that claims such as claim 2 by referring to means for cutting and forming members indicate that claim 1 must be so limited. Upon this view of claim 1 they contend that it is anticipated by Aaronson's patent.

To read claim 1 in either of these ways seems to their Lordships to disregard the setting in which it appears. The body of the specification cannot be ignored, and the claim in question read as it ought to be read in the light of what is present in the body of the specification is in their Lordships' opinion a claim to a machine of the type indicated by the description in the specification for making fastener stringers with means for producing the three results mentioned in the claim, that is to say, it is a claim for a general mechanical idea a preferred form of which is described in the body of the specification.

It is certain that the general mechanical idea of combining in this class of work all the necessary operations in one machine was novel and a perusal of the evidence of the inventor Sundback given before the Trial Judge satisfies their Lordships that so far from the combination being obvious, it was only after years of work at the problem of how to produce stringers that the combination was recognised to be desirable or found to be possible, and that the inventive element necessary to constitute subject-matter is made sufficiently evident.

If claim 1 be thus construed this claim and claims 3, 7 and 8 are, in their Lordships' opinion, all valid and are all infringed by the respondents' machine. These claims all embody a valid general mechanical idea with added integers. Both the general idea and the added integers are reproduced directly or by mechanical equivalents in the respondents' machine. The argument that in the differences between the swinging side pincers of the respondents' machine and the side punches described in the specification there can be found an escape from the charge of infringing claim 3 cannot be supported.

With regard to claims 2 and 10, further points of construction were raised on the respondents' behalf. It was said that in

claim 2 and claim 10 there is a time sequence necessarily implied and that the inventor has tied himself down to cutting the members from the strip before they are formed or shaped by the addition to them of the socket and projection, and that therefore no doctrine of mechanical equivalents can be here invoked by the appellants while as the respondents' machine shapes the member before cutting it out it does not infringe.

Their Lordships do not think that this result can be extracted from the language employed. According to the natural meaning of such language nothing more is indicated than the things to be done. The order of doing is not stressed, and forms no parts of the essentials of these claims. Their Lordships do not think that these claims can be differentiated from those already dealt with or can be held to be otherwise than valid and infringed.

There remains for consideration claim 19. This is a method claim. It is said to be anticipated by Aaronson's patent, but even if the method is limited to fixing members on to stringers the claim is for something which had never been done before namely producing stringers fitted with identical members so that a pair of stringers can co-operate to form a complete fastener. Their Lordships think that this is a novel claim with ample subject-matter and is valid and has been infringed.

The respondents laid some stress upon the fact that by their machine the members are fixed lightly to the tape which has subsequently to be further treated in another machine. The fact that their machine is not as efficient as that of the appellants will not enable them to escape the charge of infringement.

The appeal therefore should in their Lordships' opinion succeed. Their Lordships observe however that the formal judgment of the Trial Judge extended to the whole patent and was not confined to the seven claims alleged to have been infringed. His judgment should be restored, but subject to a variation limiting the declaration of validity and the injunction and other relief granted to the seven claims in question.

Their Lordships will humbly advise His Majesty accordingly.
The appellants will have their costs here and below.



In the Privy Council.

THE LIGHTNING FASTENER COMPANY,
LIMITED,

vs.

THE COLONIAL FASTENER COMPANY,
LIMITED, AND OTHERS.

DELIVERED BY LORD TOMLIN.

Printed by

Harrison & Sons, Ltd, St. Martin's Lane, W.C. 2.

1934.