

BETWEEN:—

LIGHTNING FASTENER COMPANY }  
 LIMITED ..... } PLAINTIFF;

1932  
 Feb. 9.  
 April 4.

AND

COLONIAL FASTENER COMPANY, }  
 LIMITED, AND G. E. PRENTICE } DEFENDANTS.  
 MANUFACTURING COMPANY ... }

(No. 13633)

*Patents—Infringement—Subject-matter*

The invention here relates to separable fasteners of a type disclosed in a former Canadian Patent granted to Sundback. It is claimed that the plaintiff was entitled to a patent because of his discovery that if the projection in the unit was made smaller than the recess in the other unit which co-operates with it, it would give increased flexibility.

*Held*, that inasmuch as the general form of interlocking members and of the recesses and projections thereon, as described in the patent in suit, had long been anticipated and used, the mere fact of making the projection smaller than the recess, thereby giving increased flexibility and allowing for shrinkage of the tape to which it was attached, did not constitute invention.

2. Every trifling improvement is not invention, and the industrial public should not be embarrassed by patents for every small improvement. A slightly more efficient way of doing a thing, small changes in size, shape, degree, or quality in a manufacture or machine, even assuming novelty, is not invention. More is necessary to justify a monopoly.

ACTION by the plaintiff herein to have the patent of invention granted to Sundback, and assigned to it in November, 1926, declared good and valid and infringed by the defendants.

The action was tried before the Honourable Mr. Justice Maclean, President of the Court, at Ottawa.

*O. M. Biggar, K.C.*, and *R. S. Smart, K.C.*, for plaintiff.

*D. L. McCarthy* and *S. A. Hayden* for defendants.

The facts and parts of the Specification material to the issue are stated in the Reasons for Judgment.

THE PRESIDENT, now (April 4, 1932), delivered the following judgment.

This is an action for the alleged infringement of a patent of invention granted in November, 1926, to Gideon Sundback, upon an application made in September, 1925.

1932

LIGHTNING  
FASTENER  
Co., LTD.  
v.  
COLONIAL  
FASTENER  
Co., LTD.  
AND G. E.  
PRENTICE  
MFG. Co.  
Macleod J.

The invention relates to separable fasteners, and has particular reference to that type of fastener for garments, footwear and other purposes, where two flexible stringers, carrying similar members are locked and unlocked by a sliding device, the locking being effected by movement in one direction and unlocking by an opposite movement. Each interlocking member is provided with a projection on one side thereof and a recess on the opposite side for co-operation with the projection of the adjacent interlocking member.

The specification states:—

This invention relates to fasteners of the type disclosed in Canadian Patent No. 189,154 dated March 18, 1919, which shows a plurality of interlocking members disposed along the edges of stringers on opposite sides of a silt where the interlocking members are controlled by a slidable operating device. An object of this invention is to provide increased flexibility and reliability, reduced cost of production, and longer life of the fastener.

According to this invention, a clearance is provided between the projection of one interlocking member and the walls of the recess in its co-operating member so located relatively to the stringers and the heads and recesses as to adapt this fastener for use with washable articles such as overalls, children's clothing, etc., where difficulty has been encountered due to shrinkage of the tape stringers, or the fabric to which attached. This clearance results from a different contour of the sockets and projections shown in said patent and enables quite wide variations in stringer length and member spacing to exist without causing the members to jam, or to become so loose as not to stay interlocked. Also, where the members tend to jam, excessive wear is caused on the slider, or even distortion sufficient to render a new one necessary. Since the projections and co-operating sockets are not so nearly identical in fit, as in said patent, the dies and punches used in making the members need not be of such high precision, and may be used for a longer time when worn from their original contour because of the greater clearances permitted by this invention, thus cheapening the tool and labour cost of production.

The case was put to me on the footing that there was invention in making the recess of the member of considerably larger dimensions than the projection, the recess and projection being somewhat tapered, so as to permit lateral and longitudinal flexibility, the flexibility being of particular utility, it was said, in the case of shrinkage in washable articles. Mr. Ray, the plaintiff's expert witness, explained very fairly, I think, the scope of the alleged invention in his direct examination, in the following words:—

This patent has to do with a fastener consisting of two stringers with the elements fastened on it as shown in figure one of the drawing; and as seen on that drawing the recess is made of considerably larger dimensions than the projection on the co-acting elements. This permits flexi-

bility of the fastener in use without causing the projection to come out of the hole in the co-acting element or the recess in the co-acting element, I should say. It also permits of smoother interlocking of the elements when they are brought together by the slider. There is less tendency for the projection on the one element to interfere with the recess in the co-acting element, so that they come together more smoothly. Then the clearance allows for shrinkage in the tape, which occurs in washing articles to which the fastener is applied so that after such shrinkage takes place the fastener elements will not bind with each other. If the projection and the recess are made of substantially the same size as is shown in some of the earlier Sundback patents, there is a tendency, when shrinkage takes place through the washing, for the projection riding up on the walls of the recess; and that results in a binding between the fastener element on one of the stringers with the fastener element on the other stringer, so that the slide cannot readily be operated; and that in turn tends to either move the fastener element or cause breakage or spreading of the slide itself.

The evidence given by Mr. Ray, on cross-examination, would limit the invention to the fact that the recess was enough larger than the projection to permit a lateral and transverse movement. Mr. Smart, for the plaintiff, urged that the patent be sustained because of the discovery that if the projection was made smaller than the recess there was increased flexibility. The alleged invention was therefore rested upon this one point. Therefore it seems to me that the only question for decision is whether there is invention in making the projection smaller than recess, and tapered, so that there may be a margin of play to meet lateral and longitudinal stresses.

The general form of the interlocking members and of the recesses and projections thereon, described in the patent in suit, had long been anticipated and used. The recesses and projections had, prior to the Sundback patent here in question taken various shapes. They had been formed in shapes described as conical, pyramidal, cylindrical, semi-circular, and rounded but elongated transversely the member. In some cases at least, the recess and projection was tapered in some degree, and the utility of flexibility in sliding fasteners was understood. The rounded but transversely elongated recess and projection described in the patent in suit had been described in previous patents, but as I understand it, it is also claimed that the recess and projection should be tapered when the stringers are to be used in washable articles. Flexibility of the interlocking members being the admitted essence of the invention, I shall refer

1932

~  
 LIGHTNING  
 FASTENER  
 Co., LTD.

v.

COLONIAL  
 FASTENER  
 Co., LTD.  
 AND G. E.  
 PRENTICE  
 MFG. Co.

Maclean J.  
 ———

1932  
 LIGHTNING  
 FASTENER  
 Co., LTD.  
 v.  
 COLONIAL  
 FASTENER  
 Co., LTD.  
 AND G. E.  
 PRENTICE  
 MFG. Co.  
 Maclean J.

to two patents in the pleaded prior art, and they are patents issued to the same patentee as in this case. In Sundback's United States patent no. 1,219,881 (1917) relating to separable fasteners, the specification states that the recesses and projections are round but somewhat elongated transversely so that the outside of one member nests within the recess of an adjoining member when in locked relation, and it states that thereby a "snug fit is obtained and at the same time ample provision is given for movement of one or the other without coming out when the fastener is flexed transversely." It is also stated that "this construction gives facility for relative longitudinal movement without disengagement." The specification also states that

owing to the rounded and transversely elongated shape of the projections and recesses, the fastener is very flexible without being loose. Flexibility is also increased by reason of the relatively large number of locking members provided, which is possible because these members are thin and their projections and recesses can be proportioned so that one will not touch another when the fastener is bent transversely. This is an important consideration in fasteners of this type. Thus it will be seen that the shape of the projections and recesses is such that when engaged, the stringers have practically no movement of separation, but yet the engagement is secure without being stiff, because the locking members on one stringer can rock or oscillate freely relatively to those on the other stringer without disengagement.

Then, in Sundback's United States patent no. 1,243,458 (1917), also relating to separable fasteners, the patentee states that the invention while providing for a snug fitting of the socket (recess) and projection still ample provision is made for the movement of one member relative to the other without disengaging when the fastener is flexed transversely or longitudinally. The specification states that:

Practical success in a fastener of this character is largely dependent upon proper construction of the locking members. Not only must these members remain engaged when the fastener is flexed transversely or one stringer moved longitudinally relative to the other, but the locking members must guide smoothly into and out of each other without liability of jamming on the slider or on each other, and must always lock without objectionable looseness.

All this means, I think, that the recess described in each of these two patents was in fact larger than the projection, to ensure flexibility, and that substantially they were round in formation.

I think that in the use of fasteners of this kind, the projection must inevitably be smaller than the recess in order

to secure a certain amount of flexibility. Therefore, leaving out any other aspect of the case, there has been, I think, anticipation of the alleged invention in question here, by the same patentee. The only distinction of substance between the patent in suit, and the two prior patents to Sundback, is that in the former case the patentee seems to rely upon the fact that certain fabrics will shrink when washed, which of course he always knew, and he introduces this fact into his specification as a ground for building up a claim to invention of something which he had substantially described in earlier patents.

I do not however wish to rest my decision merely on the ground of anticipation. I do not think there can be invention in providing fastening members with rounded or tapered projections on one side, and a larger and rounded or tapered recess on the opposite side, wherein the recess is enough larger than the projection so as to permit the projection to oscillate or roll, within limits, laterally and longitudinally, without coming out of engagement or interfering with the control of the members by the slider? The unsatisfied demand, according to the patentee, for greater flexibility in fasteners, lies, it is said in the necessity of counteracting the effect of shrinkage in washable articles in which stringers are used. Mr. Ray only went so far as to say that there was "a tendency" in the earlier Sundback fasteners, when shrinkage had taken place, for the projection to ride up on the walls of the socket. Now it is the practice, according to the evidence, to pre-shrink stringers, before applying the members or fastening units to them, a very sensible and obvious practice I should say. I do not think that invention can be sustained when it rests upon the allegation that greater flexibility of the fastener is necessary when stringers are applied to washable goods. I think that is a difficulty more effectively disposed of by the pre-shrinking of the stringers. To say that the projection should be enough smaller than the socket but not too much smaller, is but repeating what was known and practised before, and something which is obviously self evident when it is considered that such fasteners are invariably used in articles of use that usually flex very considerably. That the projection should tightly fit the recess was never in the mind of those engaged in producing this type of fastener.

1932

LIGHTNING  
FASTENER  
Co., LTD.

v.

COLONIAL  
FASTENER  
Co., LTD.  
AND G. E.  
PRENTICE  
MFG. Co.

Maclean J.

1932  
 LIGHTNING  
 FASTENER  
 Co., LTD.  
 v.  
 COLONIAL  
 FASTENER  
 Co., LTD.  
 AND G. E.  
 PRENTICE  
 MFG. Co.  
 Maclean J.

It was imperative that the locking and unlocking of the members might be easily accomplished. There was flexibility in the interlocking members of the Kuhn-Moos fasteners; there the recess and projection when in engagement had a rolling effect, and the projection was longer than the recess was deep. There is not, in my opinion, any invention in the alleged improvement. Every trifling improvement is not invention and the industrial public should not be embarrassed by patents for every small improvement. A slightly more efficient way of doing a thing, small changes in size, shape, degree, or quality in a manufacture or machine, even assuming novelty, is not invention. Something further is necessary to justify a monopoly. If one could monopolize any variation of an existing method, process, manufacture or machine, simply because it had not been done before, industrial effort would intolerably be impeded because patents would exist and be supported for endless trivial details. There must be sufficient ingenuity to make a useful novelty into an invention. A small amount of ingenuity may be sufficient, but there must be some, but I do not think that there is sufficient ingenuity in this case to sustain the patent. The whole idea of Sundback was old, and the state of public knowledge at the date of the patent in suit was such, I think, as to make impossible the step described by Sundback, to be considered as proper subject matter for a patent. If one desires to alter slightly the shape, contour or proportions of recess and projection, or vary the degree of flexibility of the fastener, he should be permitted freely to do so, but to do so does not mean that there is invention. I should very much doubt if for many years, though of course I am not so deciding, that there was any field for invention in the locking features of the type of fasteners described and illustrated in the patent in suit. Once the principle or method of construction and operation of fasteners of this type with the recess and projection interlocking means was known, it was easy to make slight variations, but not patentable variations.

For the reasons which I have stated the plaintiff must fail, and I dismiss the action with costs to the defendants.

*Judgment accordingly.*