tion here, it need only be said that they went into the enterprise with their eyes open, and with deliberate design to infringe another's rights. In such case, they have no right to favorable consideration by a court of equity.

An injunction will issue, as prayed for.

HAMMOND BUCKLE CO. v. GOODYEAR RUBBER CO. et al.

(Circuit Court of Appeals, Second Circuit. October 17, 1893.)

PATENTS FOR INVENTIONS-INFRINGEMENT-IMPROVEMENT IN SHOE CLASPS. In view of the prior state of the art, the first claim in letters patent No. 301,884, granted July 15, 1884, to Hammond & King, for improvement in shoe clasps for arctic shoes, viz.: "In combination, the catch plate, the tongue pivoted directly to the tongue plate, and the tongue plate extending rearward of the pivot, and in contact with the catch plate when the parts are engaged," can only be sustained by reading into it the limitations that the tongue should be pivoted directly to the tongue plate, below its face, and between its bifurcated ends, and that the tongue should have a broadened position to combine with the elastic arms of the bifurcated ends, and, as thus modified, the invention is described in claim 4 of the same patent; and the patent is not infringed by a shoe clasp which has no broadened tongue, the lock of the tongue being secured by the use of flattened, laterally projecting pivots.

Appeal from the Circuit Court of the United States for the District of Connecticut.

In Equity. Bill by the Hammond Buckle Company against the Goodyear Rubber Company and others to restrain the infringement of letters patent No. 301,884, issued July 15, 1884, to Hammond & King, for an improvement in shoe clasps for arctic overshoes. Deoree for complainant. Defendants appeal. Reversed.

C. H. Duell, for appellants.

George W. Hey, for appellee.

Before WALLACE and LACOMBE, Circuit Judges.

LACOMBE, Circuit Judge. The patent is for an improvement in shoe clasps of the kind used to fasten together the flaps of arctic overshoes. The particular claim is as follows:

"(1) In combination, the catch plate, the tongue pivoted directly to the tongue plate, and the tongue plate extending rearward of the pivot, and in contact with the catch plate when the parts are engaged, all substantially as described."

The patent contains three other claims, but they are not in question in this suit.

The defendants' clasp is made under letters patent No. 418,924, January 7, 1890, to John Nase.

The patent sued upon was construed by Judge Shipman in Hammond Buckle Co. v. Hathaway, 48 Fed. Rep. 305, 834, and the validity of this claim sustained. Application for a preliminary injunction in the suit at bar was made before the same judge. It was denied for the reason that infringement was not plain, but the validity of the claim was again sustained. Subsequently, when the case came before Judge Townsend at final hearing, he followed the decision of Judge Shipman in the Hathaway Case, construing the patent, finding in such new evidence of anticipation as was not before the court in the earlier case no reason for reaching a different conclusion. He also found defendants' clasp to be an infringement of the claim, as thus construed.

The testimony shows a great variety of shoe clasps very similar in character. There has been much litigation between the owners of competing devices, (32 Fed. Rep. 791; 38 Fed. Rep. 602, 604; 41 Fed. Rep. 519, and 47 Fed. Rep. 452.) and an examination of the various patents introduced in proof, and of the opinions above cited, shows beyond a doubt that at the time the patent in suit issued the field of invention in that art was an extremely narrow one, and that a patent for a new combination of the well-known mechanical elements which went to make up shoe clasps of that kind, viz. the tongue plate, the tongue, and the catch plate, could only be sustained under a construction which would restrict its claims to the precise form and arrangement of parts described in the specification. The claim, as finally granted by the patent office, is broader than the state of the art would warrant. The parts of the combination,---"the catch plate," the tongue pivoted directly to the tongue plate, "the tongue plate extending rearward of the pivot, and in contact with the catch plate,"-were not only all old devices, but had already been combined in a patent granted to Samuel G. Blackman, (No. 244,534,) July 19, 1881. The circuit court, however, found in the specification an improvement, with enough of invention in it to sustain a patent: limited the claim, by construction, to that particular invention; and, as thus limited, held it to be valid. The mechanical details of the complainant's clasp are very fully and clearly set forth in the opinion referred to. 48 Fed. Rep. 307:

"The tongue plate was a single piece of metal doubled upon itself, and was forked at its rear end, i. e. the end next the catch plate. The tongue swung in this bifurcation, the pivot of the tongue being located underneath the tongue plate. Indentations in the underfold of the tongue plate partially embraced the ends of the pivot pin, which was held between the two folds. The specification says:

"'It will be observed that this construction of the tongue plate causes the tongue plate, or a portion of it, to extend rearward of the tongue, forming there a bearing surface for the catch plate; the result of which is, in use, that the whole structure is caused to move together when movement of the catch plate is had, which unity of motion in the parts of the shoe clasps preserves the two flaps of the shoe in a better relation to each other than in the case where the catch plate can be tilted downward independently of the tongue.'

"When the tongue pivots are formed solely underneath the tongue plate, the face of the plate may be made smooth. A crossbar or projection on the tongue plate back of the tongue made a stop which limited the backward play of the tongue. * * The improvement consisted in having the body of the tongue plate extended on both sides of the tongue beyond the pivot so as to form a bifurcation at the inner end of the plate, in which the tongue plays; these extensions being for the purpose of forming supports upon which the catch plate is drawn as the tongue is closed, and which prevent the catch plate from changing its position. The pull of the tongue and the catch plate upon each other is more efficient when the pivot is below the fold of the tongue plate. It is plain that this buckle is a different thing, in the way in which and the means by which the catch plate is made to be an efficient member of the buckle, from the preceding patents which have been described. [It may be noted, in passing, that the patents referred to by the learned judge as "before described" did not include the Blackman patent, which, more perfectly than any other, shows a rearward extension of the tongue plate, forming a support upon which the catch plate is drawn as the tongue plate, forming a support upon which the catch plate is drawn as the tongue plate, and this is accomplished by the bifurcated extensions of the conce plate, which project rearwardly beyond the pivots. The question of importance is whether this improvement has the element of patentable invention. I do not think that the mere elongation of the tongue plate would have been patentable, but I am of opinion that the way in which lengthening was accomplished, and the support was given to the catch plate, so the tongue beyond the pivot, in which extensions the tongue plays, and upon which the catch plate is supported in position, did show patentable invention. There was no invention in the production of smoothness of surface upon the test." * Neither was there any patentability in the stop."

We concur with the learned judge in the conclusions that there was no invention in the clasp above-described, aside from the rearward extension, and that the mere elongation of the tongue plate rearwardly would not have been patentable. Such rearward extension, combined with a tongue pivoted below the tongue plate, already existed in the Blackman patent. But we do not agree with him in the conclusion that there was patentable invention in extending rearwardly by bifurcation, when the only function of the bifurcated extensions was to afford a support or resting place for the catch plate. The "efficient support" spoken of comes not at all because of the bifurcation, but because of the rearward extension. All the advantages derived from such an arrangement of the two plates—the prevention of the cloth of the overshoe being caught in the bight of the tongue while being fastened, and the "unity of motion in the parts of the shoe clasps," when once fastened-are, so far as the testimony shows, equally secured by an extension of the whole tongue plate, which was old in the art. The substitution of the bifurcations for the unbifurcated tongue plate, rearwardly extended, as in the Blackman patent, was a mere change of form; and unless such change of form accomplishes something,--introduces a new function, or a new method of performing the old function with greater excellence or economy,—it is not patentable invention. The bifurcation does not accomplish anything new in the way of more efficient support. The function of supporting the catch plate, and the mode of supporting, are entirely unaffected by the diversity of shape. The bifurcation does, however, subserve a useful purpose, which is described in the patent as follows:

"The bifurcations at the rear end of the tongue plate have a slight lateral elasticity, and the tongue is made, at the point, *e*, slightly broader than elsewhere; and its breadth is such that it must, in locking and unlocking the tongue, pass through said bifurcation, by springing the forks thereof apart. This insures a slight locking action, both when the tongue is opened, and when it is closed."

This additional element develops a function in the bifurcations which may be said to involve an exercise of the creative faculties. and thus the entire combination, being apparently new in the art, may be patentable. It seems quite plain from the language of the patent that the inventor selected a bifurcated, rather than the unbifurcated, extension, to accomplish that very result,—the locking of the tongue. And we are of the opinion that, if the first claim is to be sustained at all, it can only be by reading into it, not merely the limitations suggested by the circuit court, viz. that the tongue should be pivoted directly to the tongue plate, and below its face, and between its bifurcated ends, but also the further limitation that the tongue should have the broadened position to combine with the elastic arms. As thus modified, however, the invention is described in claim 4 of the patent:

"(4) In combination, the catch plate, the tongue plate provided with the laterally elastic bifurcations extending rearward of the pivot, and the tongue swinging in the bifurcations, with a broadened portion which passes between the elastic arms as the tongue is swung, all substantially as described, and for the purpose set forth."

-Which is really all that the inventor was entitled to claim. The defendants' clasp, however, has no such broadened tongue,—the locking of the tongue being secured by the use of flattened, laterally projecting pivots,—and does not infringe complainant's patent, as it must be construed to sustain its validity.

The decree of the circuit court is reversed, and cause remanded, with instructions to dismiss the bill, with costs of both courts.

DELEMATER et al. v. HEATH.

(Circuit Court of Appeals, Second Circuit. October 17, 1893.)

- 1. PATENTS FOR INVENTIONS—VALIDITY—PRIOR USE—WHAT CONSTITUTES. A single unrestricted sale is sufficient to establish the defense of a prior public use, and, where a machine is sold unconditionally in the ordinary course of business for a substantial price, the fact that the maker's workmen made frequent visits to it in the purchaser's house, to make repairs, observe its workings, and see if any improvements suggested themselves, is not sufficient to prove that the use was experimental merely. Elizabeth v. Pavement Co., 97 U. S. 126, distinguished.
- 2. SAME-LIMITATION OF CLAIMS-REFERENCE LETTERS.

A mere reference in a claim to a letter on the drawing does not of itself limit the claim to the precise geometrical shape shown in the drawing, even though the description in the specifications refers to the part by an adjective descriptive of its shape, unless that particular shape is pointed out by the specifications or is known by the state of the art to be the particular improvement the patentee claimed.

3. SAME-EQUIVALENTS-HOT-AIR ENGINES.

Attaching the pump plunger of a hot-air engine to the same oscillating beam to which the working piston is connected, but further from the center of oscillation, so as to give a longer stroke, is mechanically the same thing as attaching it further from the center of oscillation to an arm at one side of the beam, parallel with it, fastened to the same axle, and describing the same arc; and a claim for the former includes the latter.

4. SAME-PRIOR USE.

The Ericsson reissue patent No. 9,414, for a hot-air engine, is invalid, because of prior public use of the machine.