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BURT *v.* EVORY.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE DISTRICT OF MASSACHUSETTS.

No. 164. Argued December 16, 1889.—Decided February 3, 1890.

The claim in letters patent No. 59,375, granted to Alexander F. Evory and Alonzo Heston, November 6, 1866, for an "improvement in boots and shoes" was for a manufactured article, and not for the mode of producing it; and, as it was merely a carrying forward of the original idea of the earlier patents on the same subject—simply a change in form and arrangement of the constituent parts of the shoe, or an improvement in degree only—it was not a patentable invention.

Not every improvement in an article is patentable, but the improvement must be the product of an original conception; and if it is a mere carrying forward, or more extended application of, an original idea, an improvement in degree only, it is not an invention.

The combination of old devices into a new article, without producing any new mode of operation, is not invention.

IN EQUITY to restrain an infringement of letters patent. Decree in complainants' favor. Defendants appealed. The case is stated in the opinion.

Mr. George D. Noyes for appellants.

Mr. Frederic H. Betts for appellees.

MR. JUSTICE LAMAR delivered the opinion of the court.

This is a suit in equity brought in the Circuit Court of the United States for the District of Massachusetts, by Alexander F. Evory, Alonzo Heston and J. B. Belcher against John W. Burt and Fred. Packard, composing the firm of Burt & Packard, for the alleged infringement of letters patent No. 59,375, issued to said Evory and Heston, November 6, 1866, for an "improvement in boots and shoes."

The bill filed December 9, 1880, alleged the issue of said letters patent to the plaintiffs Evory and Heston; the assignment of a one-half interest therein to the plaintiff Belcher;

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the granting of an exclusive license to the National Rubber Company to manufacture rubber goods containing the invention patented ; and the infringement by the defendants, which was said to consist in their having made and sold shoes and gaiters constructed in accordance with the specification and drawings contained in letters patent No. 205,129, granted to the defendant Packard June 18, 1878, and also other shoes and gaiters, all of which contained the invention in the plaintiffs' patent. The bill prayed an injunction, an accounting and damages.

The defences pleaded in the answer were non-infringement ; an anticipation of the plaintiffs' invention by certain English patents dated in 1856 and 1860, respectively ; and want of novelty in the invention, because, long prior to the issue of plaintiffs' patent, one Jacob O. Patten of Philadelphia had manufactured and sold shoes constructed on the same plan as described in that patent. Issue was joined, proofs were taken, and on the 3d of February, 1883, the Circuit Court entered a decree sustaining the plaintiffs' patent, and adjudging that there had been an infringement of it by the defendants ; and accordingly referred the case to a master for an account of profits, and for the determination of damages, if any, by reason of such infringement. *Evory v. Burt*, 15 Fed. Rep. 112. October 13, 1884, the master filed his report, in which he found that the defendants had made and sold 41,297 pairs of shoes which infringed the plaintiffs' patent, but that, as they made no difference in price between shoes containing the invention of the plaintiffs and those without it, they therefore made no profit from such infringement ; that Belcher was the only one of the plaintiffs who was engaged in making or selling shoes, and, as he made and sold less than 1000 shoes containing the invention in the patent, he was not damaged by reason of defendants' infringement ; but that, as the evidence showed that the plaintiffs had an established royalty of three cents a pair, for shoes made under that patent, and had issued licenses and sold stamps to persons desiring to use their patent, the licensees paying such royalty, the defendants should pay the plaintiffs that royalty on the number of shoes made by

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them containing the infringing device, to wit, 41,297 pairs, that is, the sum of three cents a pair, or \$1238.91. Exceptions were filed to this report, but they were overruled by the court, and on the 29th of January, 1886, a final decree was entered confirming it and assessing damages in the sum of \$1238.91, that being the amount of the royalty found due by the master. An appeal from that decree brings the case here.

The material parts of the specification of the plaintiffs' patent and the drawings are as follows: "Our said invention consists in a novel mode of constructing shoes and gaiters, whereby the ordinary elastic goring at the sides and the

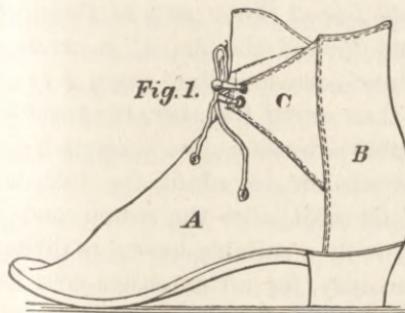


Fig. 1.

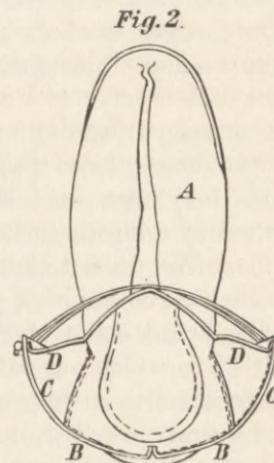


Fig. 2.

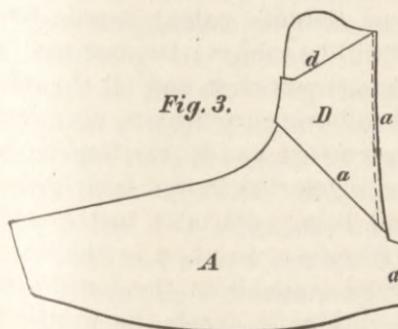


Fig. 3.

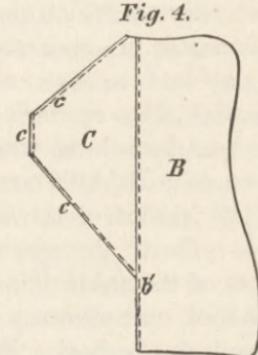


Fig. 4.

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tedious lacing up at the front are both dispensed with, while at the same time the tops will expand to receive the foot, and fit neatly and closely around the ankle when the shoe is on, being also water-tight to the extreme top of the shoe. . . . Figure 1 represents a side elevation of our invention; Fig. 2 a plan or top view of the same; and Figs. 3 and 4 represent detached views or patterns of the several parts. Similar letters of reference in the several figures indicate like parts of our invention. A represents the front of the shoe, and has attached to its rear edge α , as shown, a gore flap (marked D). B represents the back of the shoe, and has attached to its front edge b , as shown, a corresponding gore flap (marked O). The front and back are sewed together at those parts of their contiguous edges marked a' and b' , and the flap C is arranged upon the flap D, bringing their corresponding edges c and d upon each other, which are then sewed together, the two flaps thus arranged forming a double extension gore upon each side of the shoe, which readily expands to admit the foot, and which may then be folded forward over the instep, and be secured by a buckle or knot, or by a suitable lacing, as desired. . . . We do not claim broadly, for an extension-gore flap inserted in the ankle of gaiter shoes, for this is fully covered by the broad claim of Samuel Babbit's patent, issued March 7, 1865, to which our patent will be subject; but our mode of construction is an improvement upon that, and all the other modes since patented, in the following particulars, viz.: First, it requires less stock in its construction, and is therefore cheaper than those in which the gore is inserted in the heel; second, it is neater in appearance, and, being adjustable to the ankle, it may be fitted even where there is a variation in the size of the shoe, thus rendering it more available in the construction of shoes for sale at wholesale; third, it avoids the wrinkle in the heel in Babbit's construction of shoes, which, being exposed to the friction of the leg of the pantaloons, soon wears into a hole; fourth, by giving expansion forward to the vamp in front of the ankle it admits of the more easy introduction of the foot, and allows a neater fit than is attainable when the gore is in the heel. What we do claim as our invention, and

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desire to secure by letters patent, is — A shoe when constructed with an expansion-gore flap, C D, the external fold, C, of which is attached to and in front of the quarter B, and the internal fold, D, of which is attached to and in rear of the vamp A, the said several parts and pieces being respectively constructed and the whole arranged for use substantially in the manner and for the purpose set forth."

In construing this patent the court below followed the decision of the Circuit Court of the United States for the District of Connecticut (Judge Shipman) in *Evory v. Candee*, 2 Fed. Rep. 542; and seemed to assume that no question was presented here touching its validity. After referring to the fact that the patent had been held valid in *Evory v. Candee*, *supra*, the court said: "Its validity is not now assailed, unless a wide construction is given to the claim; and this, as is most usual, is the difficult point."

The assignments of error are seven in number; but in the view we take of the case it is necessary to examine only the first three of them, which are, that the court erred (1) in holding that the patent is valid; (2) in holding that, in view of the antecedent state of the art, the patent had been infringed by the defendants; and (3) in construing the patent.

These assignments may be properly considered together. In construing the patent it will be necessary to consider the state of the art when the application for it was made. The object sought to be accomplished was to make improvements upon ordinary shoes so that they would be water-tight and would exclude dirt. It is shown by the record that long prior to the time when the application for the patent was made there had been a number of efforts made in the direction of accomplishing the same result. As early as 1856, Stephen Norris, of England, received a patent there for "improvements in the manufacture of boots and shoes and other coverings for the human feet;" and in 1860, Norris and Robert Rogers obtained another patent in England relating to the same subject matter, and intended to be an improvement upon the invention in the prior patent. These patents were broad in their claims, and were intended to cover any device by which

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boots and shoes could be made water-tight by means of the cut of the various pieces composing them. Various designs were adopted and used by the patentees in those patents for the manufactured article to which the patents related.

In his specification to the patent of 1856, Norris says: "My improvements consist in adapting to boots, shoes and other coverings for the human feet, gussets of novel and improved construction, in combination with ordinary fastenings, for the purpose of enabling boots, etc., to be readily adapted and secured to and detached from the feet, and at the same time preserved water-tight at such parts when necessary. The following are a few examples of the mode of adapting my said improvements to certain descriptions of boots, shoes and other coverings for the human feet. First, as regards ladies' boots, I propose to employ side gussets of cloth or leather, so combined with elastic material as that the said gussets shall always be preserved flat, instead of wrinkling or overlapping, as heretofore. Another mode is to secure folding side gussets and fastenings, composed either by interlacing into two rows of hooks strips of elastic or eyelets. The openings for the gussets I propose to make at each side of the boot, and to extend it from the top in an ornamental direction, either towards the toe of the boot or the sole thereof, or towards the heel. And as regards gentlemen's boots and other similar coverings, I propose, in manufacturing boots known and distinguished as Bluchers, to form the side seams thereof, or close the 'fore' and 'back' parts, somewhat after the manner of Wellington boots, so as to resemble the same when on the feet, and to enable Blucher boots to be more readily put on and taken off than heretofore, by employing the aforesaid gussets in combination with boots of the above description. In order to explain my said invention as completely as possible, I now proceed to describe the best means I am acquainted with for carrying the same into practical effect, reference being had to the illustrative drawings hereunto annexed, and to the numeral figures and letters of reference marked thereon respectively, as follows." Then follows the description of the drawings relating to the patent, and, in conclusion, the speci-

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fication says: "I would remark that the principal points to be attended to in these improvements are to have the gussets the proper size, and to connect them to the front and back parts of the boot, or to the back part only thereof, by sewing and stabbing, or other known means, so that they may, when necessary, be rendered water-proof; and this applies more particularly to men's boots. And as regards the fastenings for securing the boots on the feet, I employ any of the known means for that purpose." And again he says: "I hereby declare that I claim as my invention: Firstly, the modes above particularly described, set forth, and represented at figures 1, 2, 3, 4, 10, 11, 12, 13, 18, 19, of sheet 1, of manufacturing Blucher boots, and more particularly the cutting of the back part of such boots in the manner exhibited at figures 5, 6, 15, 16, 18, for the purpose set forth. Secondly, the inserting of the gusset at the back part of the boot, as at figure 14. And lastly, as regards the boots exhibited at the several other figures of the drawings, I claim the adapting thereto of two gussets, as above described."

In the patent of 1860 some minor changes were made, in the shape of several of the parts composing the boot or shoe, but the object of the invention remained the same, namely, to make the boots and shoes to which it related water-tight and capable of excluding dirt, etc.

An examination of the drawings accompanying the applications for those patents shows that several of their shoes differ very little, if any, in their essential features from those manufactured under the Evory and Heston patent. The shoes under the English patent, as do those under the Evory and Heston patent, consist of quarters, the vamp, and a folding gusset or gore flap uniting the vamp and the quarters. It is contended on behalf of the appellees, and the testimony of their expert, Mr. Brevoort, is to the same effect, that the material point of difference between their shoe and the Norris shoe is, that in the latter the gusset or gore flap folds in such a manner that it lies within the shoe proper next to the foot, while in their shoe the gore or gusset folds outside of the shoe, thus rendering their shoe more comfortable to the foot and

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more easily worn than the English shoe. But we do not think it can be safely averred that the specifications and drawings of the English patents require the gore or gusset to be folded so that it will lie inside of the vamp, next to the foot. It is true that Norris does not say in so many words that the folds of the gore will lie wholly outside of the shoe proper; but neither does he say that they shall lie wholly within the shoe. We think a fair construction of Norris's patents leaves the question of where the folds of the gussets of his shoes shall lie, within the discretion of the manufacturer of them, who, if he be a skilful mechanic, will be enabled to so arrange the gores or gussets that they will accomplish their object without interfering with the comfort of the wearer of them.

On the 7th of March, 1865, Samuel Babbit of Kokomo, Indiana, obtained a patent, No. 46,622, for an "improvement in gaiter boots." In his specification Babbit says: "The object of this invention is to dispense with the use of the ordinary gore or elastic webbing in the manufacture of gaiter boots, and at the same time so construct the shoe as that the purposes of such webbing shall be subserved. To this end the invention consists in forming that part of the shoe which covers the ankle with an extension which enlarges the opening to such a degree as to permit the foot to be readily inserted, and which, after the shoe is on the foot, is folded and buckled or fastened against the ankle after the manner of a flap, and this shoe is made without the formation of a joint and is perfectly water-tight." Babbit's shoe had the quarters extended at the heel about one-half the width of the shoe at the ankle, thus enlarging the opening in the top of the shoe through which the foot is inserted to an extent commensurate with such extension. When the shoe was on the foot those elongated quarters were folded against the side of the shoe and buttoned to it, and the shoe was thus rendered water-tight clear to the top.

Another patent, No. 49,076, for the same sort of an invention, was granted to David Brown and William S. Wooton, of Kokomo, Indiana, on the 1st of August, 1865. That invention is thus described in the specification: "The present

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invention consists in attaching to the back portion of the boot or shoe in which a vertical slit or opening has been made a folding flap or piece of sufficient size and shape that, when the boot or shoe is put on the foot, it can be folded or passed entirely around the instep, and there fastened by buckling, buttoning, or in any other proper manner, said flap being connected therewith by means of two wings or sectional pieces, each fastened by sewing, or in any other suitable way, at one edge to one side of opening or slit in the boot or shoe and at the other to the inner surface of the folding flap, and which wings, when the folding flap has been buttoned, as described, lie and are held between it and the exterior surface of the boot or shoe upper." The advantages claimed for the Brown and Wooton patent were the ease with which the shoe could be put on and taken off, the absence of eyelet holes or any kind of apertures communicating with the interior of the shoe, and the peculiar construction and arrangement of the flap, whereby the counter of the shoe was prevented from being broken down.

Such was the state of the art when Evory and Heston made their application for the patent in suit. Let us now carefully examine the Evory and Heston patent to see what patentable improvements are embraced by it. In the first part of the specification it would seem that they were seeking a patent for a *mode of constructing* a shoe, for they say: "Our said invention consists in a novel mode of constructing shoes and gaiters," etc. And in another part of their specification they say; "Our *mode of construction* is an improvement upon" the Babbit patent, etc. But the concluding part of their specification would seem to negative the idea that they were claiming a patent for a mode of construction, and not for a manufactured article; for they say; "What we do claim as our invention and desire to secure by letters patent is a shoe when constructed with an expansion-gore flap," etc. In the brief of counsel for appellees it is conceded that the patent is for a shoe, and not for a mode of constructing it. Counsel says, after quoting the concluding paragraph of the specification: "This is a claim *for a shoe* having on each side an expansion-gore flap," etc.

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We think, therefore, the claim in this case must be regarded as being for a manufactured article, and not for a mode of producing it. This being true, it is difficult to see any patentable device or function in the Evory and Heston shoe. It is a mere aggregation of old parts with only such changes of form or arrangement as a skilful mechanic could readily devise—the natural outgrowth of the development of mechanical skill as distinguished from invention. The changes made by Evory and Heston in the construction of a water-tight shoe were changes of degree only, and did not involve any new principle. Their shoe performed no new function. In the construction of it the vamp, the quarters and the expandible gore flap were cut somewhat differently, it is true, from like parts of the shoes constructed under the earlier patents referred to, but they subserved the same purposes.

It is well settled that not every improvement in an article is patentable. The test is that the improvement must be the product of an original conception. *Pearce v. Mulford*, 102 U. S. 112, 118; *Slawson v. Grand Street Railroad*, 107 U. S. 649; *Munson v. New York City*, 124 U. S. 601, and many other cases. And a mere carrying forward or more extended application of an original idea—a mere improvement in degree—is not invention. In *Smith v. Nichols*, 21 Wall. 112, 118, 119, Mr. Justice Strong, delivering the opinion of the court, said: "A patentable invention is a mental result. It must be new and shown to be of practical utility. Everything within the domain of the conception belongs to him who conceived it. The machine, process, or product is but its material reflex and embodiment. A new idea may be ingrafted upon an old invention, be distinct from the conception which preceded it, and be an improvement. In such case it is patentable. The prior patentee cannot use it without the consent of the improver, and the latter cannot use the original invention without the consent of the former. But a mere carrying forward or new or more extended application of the original thought, a change only in form, proportions or degree, the substitution of equivalents, doing substantially the same thing in the same way, by substantially the same means,

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with better results, is not such invention as will sustain a patent. These rules apply alike, whether what preceded was covered by a patent or rested only in public knowledge and use. In neither case can there be an invasion of such domain and an appropriation of anything found there. In one case everything belongs to the prior patentee; in the other, to the public at large."

Neither is it invention to combine old devices into a new article without producing any new mode of operation. *Stimpson v. Woodman*, 10 Wall. 117; *Heald v. Rice*, 104 U. S. 737; *Hall v. Macneale*, 107 U. S. 90.

In the recent case of *Hill v. Wooster*, decided January 13 of this year, 132 U. S. 693, 700, it is said: "This court, however, has repeatedly held that, under the Constitution and the acts of Congress, a person, to be entitled to a patent, must have invented or discovered some new and useful art, machine, manufacture or composition of matter, or some new and useful improvement thereof, and that 'it is not enough that a thing shall be new, in the sense that in the shape or form in which it is produced it shall not have been before known, and that it shall be useful, but it must, under the Constitution and the statute, amount to an invention or discovery;'" citing a long list of authorities.

We are of the opinion that the patent in suit does not meet the requirements of the rules deduced from the decisions to which we have referred. We do not think there is any patentable invention in it; but, on the contrary, that it is merely a carrying forward of the original idea of the earlier patents on the same subject — simply a change in form and arrangement of the constituent parts of the shoe, or an improvement in degree only.

For these reasons the decree of the court below is reversed, with a direction to dismiss the bill.