

## NATIONAL SHEET-METAL ROOFING CO. v. SMEETON.

(Circuit Court, N. D. Illinois. July 13, 1891.)

## PATENTS FOR INVENTIONS—NOVELTY—METAL ROOFING PLATES.

The second claim of letters patent No. 256,083, issued April 4, 1882, to John Walter, for "a sheet-metal roofing plate having one of its lateral edges formed with two parallel corrugations to form a gutter, and the other lateral edge formed with a broad corrugation adapted to make a seam with corrugations, and a cap for the gutter of a corresponding plate," is void for want of novelty, since gutters in rigid roofing plates were previously known.

## In Equity.

*H. C. Andrews* and *Lysander Hill*, for complainant.  
*Banning & Banning & Payson*, for defendant.

BLODGETT, J. The bill in this case seeks an injunction and accounting by reason of the alleged infringement of patent No. 256,083, granted April 4, 1882, to John Walter, assignor, to himself and Charles B. Cooper, for a "metal roofing plate." The inventor, in his specification, says: "The invention relates to metal plates for roofing houses, and it consists of a plate possessing novel features of construction." He then describes his plate, which he says may be of any desirable size, as made by having formed near one of its lateral edges two parallel corrugations, so constructed that the inner corrugation shall serve as a catch to hold another plate to be placed at the side thereof, and the outer corrugation shall form, with the inner one, a gutter which will carry off any water which may enter the seam. Adjacent to the outer corrugation is a flange, having suitable perforations, by which the plate is to be nailed to the roof. The opposite lateral edge of the plate is to be formed with a single broad corrugation, adapted to cover the corrugations and gutter of its adjacent plate, and the extreme edge of the plate adjacent to the corrugation is bent under to form a hook or catch, which is to engage with the inner corrugation of its adjacent plate. With this construction, the broad corrugation of one plate overlaps the gutter and corrugations of its adjacent plate, and forms therewith a water-proof seam. The patent contains four claims, but infringement is only charged as to the second, which is:

"(2) A sheet-metal roofing plate having one of its lateral edges formed with two parallel corrugations to form a gutter, and the other lateral edge formed with a broad corrugation adapted to make a seam with corrugations, and a cap for the gutter of a corresponding plate, substantially as shown."

The defenses are: (1) That the patent is void for want of novelty; (2) that the second claim is for a mere aggregation of parts, and therefore void and inoperative; (3) that defendant does not infringe.

It will be seen, from the portion of the description of the patent which I have quoted, that the chief feature of the patent is to produce a roofing plate of sheet-metal, the seams of which shall be united by a lock or catch, and thus avoid the use of solder in such seams; and it appears

from the proof that, in all seams made by merely interlocking the edges of the plates, there is danger that water may be driven by the force of the wind or drawn by capillary attraction through the seams, and hence a gutter to catch and carry off such water is a necessity in this class of plates. Mr. Newbury, the complainant's expert, says in regard to this feature:

"It is a well-known fact that seams which allow for the movements of the parts, under the contraction or expansion of the metal which forms the shingles or plates, cannot be made absolutely water-tight, because, where such movement can take place, water can enter under certain conditions; hence the necessity for a gutter to carry off what water may enter, in order that a water-proof seam may be made. If it was not for this fact, the metal and labor taken to form the gutter and second corrugation would be a useless waste."

The proof shows several patents prior to the one in question, for roofing tiles, where the lateral edges of the plates were made with corrugations which were overlapped by the adjacent plates so as to form a gutter to carry off the water which might be driven between into the seam. In the Van Pappelendam patent of June, 1871, tiles are shown made of plates of galvanized iron which are made to overlap each other, and laid in a line diagonally up and down the roof, and these plates are provided with projecting ridges upon their upper edge and side, over which the next plate is to lap, and form thereby a gutter by means of the overlapping plate and the two ridges or projections, the purpose of which is said by the patentee to be to carry off the water which may be driven into the seam or joint. So the Roux & Roux patent of August, 1872, shows roofing tiles with one edge made to form a cap overlapping the edge of the adjacent tile; and upon the edge of the adjacent tile, and underneath this overlapping cap, are two ridges or elevations extending parallel to each other underneath the cap, which form a gutter for carrying off the water which may be driven under the tiles by the wind. And in the Weibrecht patent of May, 1874, a covered gutter is shown for the purpose of carrying off any water that may get into the joint; and the same provision is made in the roofing tile covered by the patent to Bennett issued in February, 1879.

It thus abundantly appears from the proof that gutters or channels to carry off the water which may be driven into the joint of interlocked roofing tiles were old when this inventor entered the field. Earthen or cast-iron tiles, such as are shown in the various patents I have referred to, are, of course, rigid material, and dependent mainly upon their weight for being kept in place upon the roofs; and with such material it is also impossible, of course, to make anything but an overlapping or interlocked joint or seam. When it was deemed desirable to make a roofing plate of flexible material or sheet-metal, the edges of which were to be united by an unsoldered seam, it was, of course, necessary to make the same provision for a gutter that was made in the older devices for the seams or joints of roofing tiles. There is no novelty, therefore, in the device of a gutter where the tiles or roofing plates are joined by a

loose joint, and, in using sheet-metal for this purpose, the gutter could only be provided for or made, except at great expense, by corrugation, in the metal, which corrugations should form the sides of the gutters and, as a covered gutter seems desirable, should be covered by the adjacent plate.

The patent in question discloses no new process or method of manipulation for the purpose of making the corrugations, but they can be made by any implements known to the trade adapted for the purpose. Gutters in rigid roofing plates, therefore, being old, I do not see that there is any invention in making a gutter in flexible or sheet-metal material for a roofing plate, where those plates are to be united by an unsoldered seam or joint. I think, therefore, the defense in this case of want of novelty is clearly made out, and the bill must be dismissed for want of equity.

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ROOT *et al.* v. SONTAG *et al.*

(Circuit Court, N. D. California. May 4, 1891.)

PATENTS—INFRINGEMENT—NOVELTY AND INVENTION.

From letters patent No. 372,239, dated October 25, 1887, for an improvement in loom shuttles, it appears that on the end of the shuttle body a flat plate was formerly attached by means of a screw or bolt driven or screwed into the end of the shuttle body; that the constant movement of the shuttle was liable to cause the wood to split, and the plates to become loose. The improvement is made by extending the screw through the end of the shuttle, and placing a nut on the end of the bolt of the screw. *Held*, that a bill for infringement was demurrable for want of novelty and invention in the patent.

In Equity.

*Manual Eyre*, for complainants.

*J. J. Scrivner*, for respondents.

HAWLEY, J. Respondents demur to the complainants' bill in equity for the infringement of letters patent No. 372,239, dated October 25, 1887, for an improvement in loom shuttles. Several grounds of demurrer are stated, the important ones being that the amended bill is insufficient and devoid of equity in the following particulars: (3) That it appears upon the face of the patent sued upon that it is void for want of novelty; (4) that it appears upon the face of the patent sued upon that it is void for want of invention. It is not often that these questions are presented by demurrer. Ordinarily the nature of the subject demands the testimony of witnesses skilled in the art to which the patent relates to enable the court to act intelligently upon the question whether or not the improvement required inventive skill for its production. It is, however, well settled that, in a bill in equity for the infringement of a patent, if the patent is void upon its face by reason of want of novelty or patentable invention, the court may, upon demurrer, stop the instru-

ment itself, and decide in favor of the defendant; and the court may, upon such investigation, take judicial notice of a thing within the common knowledge and use of the people throughout the country. *Brown v. Piper*, 91 U. S. 37; *Terhune v. Phillips*, 99 U. S. 592; *Slawson v. Railroad Co.*, 107 U. S. 649, 2 Sup. Ct. Rep. 663; *King v. Gallun*, 109 U. S. 99, 3 Sup. Ct. Rep. 85. In the light of these authorities, it is clearly the duty of the court to examine the patent, and ascertain whether or not, upon its face, it is void for want of novelty or invention. In this respect we are aided by the drawings accompanying the patent.

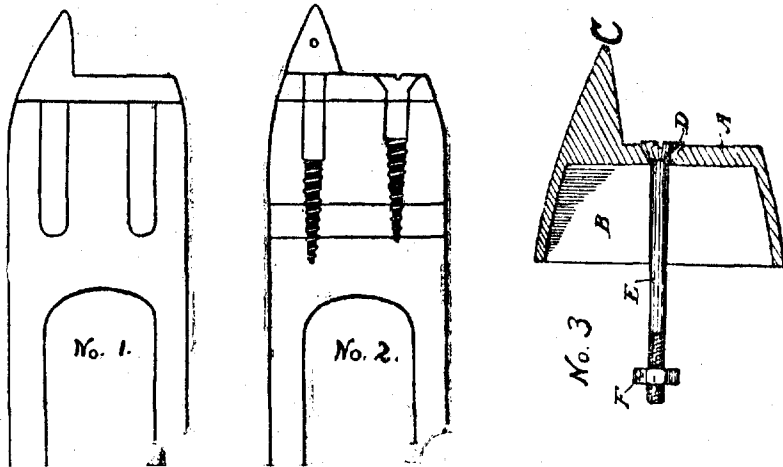


Fig. 1 is a side view of one end of the shuttle, showing the tip in place; Fig. 2 is a plan view thereof; and Fig. 3 is a sectional view of the cap removed, showing the bolt by which it is secured. The inventor in his specifications states that—

“In the manufacture of loom shuttles, it is customary to protect the end of the shuttle body by means of a flat plate, which is variously secured to the shuttle body, and has a spur or point projecting from one side thereof, which serves to insure the passage of the shuttle properly between the threads of the warp, while a portion of the flat plate serves to receive the impulse of the picker, which throws the shuttle from end to end of its travel. These plates are sometimes secured to the end of the shuttle by means of two pins, which project from the plate and are driven into the end of the shuttle; or they may be secured by means of screws, one of which has its head counter-sunk to fit flush with the surface of the plate, while the other is provided with a pointed extension, as before described. In either case the rapid movement of the shuttle, and the violent blows to which it is subjected, cause the wood to become split in a short time, or the plates to be loosened, and, furthermore, the shuttle bodies are very often split and broken in the act of putting the plates on. In my invention, A is a metallic cap, made of sufficient length to have a chamber, B, formed within its larger end of the same shape as the end of the shuttle to which it is to be fitted. C is the pointed tip which insures the proper passage of the shuttle between the threads, as before described. A counter-sunk hole, D, is made through the central portion of the metallic tip, and a bolt, E, passes through this hole, and a corresponding one in the end of

the shuttle, so that it enters the central open space within the body of the shuttle. A nut, F, is screwed upon the threaded end of this bolt, thus holding the tip firmly to the shuttle, and preventing its ever being loosened or displaced, the single bolt being sufficient for this purpose. By reason of the above construction, I am enabled to attach the metallic tip to the shuttle body without injury to the latter, and at the same time provide a simple and secure means for holding the same thereon."

The claims of the patent are:

"(1) The combination with the shuttle body of a metallic tip having a conically shaped chamber adapted to receive the end of the shuttle body, a bolt passing through said chamber and the end of the shuttle body, having a head counter-sunk in the outer end or wall of the tip, and a securing nut on the inner end of said bolt, substantially as herein described. (2) The combination, with a shuttle body, of a metallic cap having a pointed tip, C, and a chamber by which such cap is fitted to the end of the shuttle body, and a bolt passing through said cap and the end of the shuttle body, having at one end a head counter-sunk in said cap, and at the opposite end a securing nut, substantially as described."

From this reference to the drawings, specifications, and claims in the patent it appears that on the end of the shuttle body a flat plate was formerly attached by means of a screw or bolt, driven or screwed into the end of the shuttle body; that the constant movement of the shuttle was liable to cause the wood to split, and the plates to become loose. The improvement in this respect is made by extending the screw through the end of the shuttle, and placing a nut on the end of the bolt of the screw. It must be admitted that this is an improvement upon the former methods in common use, in this: that it holds the plate or tip more securely to the end of the shuttle, and prevents the wood from splitting as frequently as it otherwise would. But does this improvement involve any mechanical skill? Can the improvement, as made, be called invention? The use of a bolt with a nut screwed on the end of it for the purpose of holding or fastening things together is not only well known to mechanics, but is a matter within the general knowledge of the public. When, from any cause, it was discovered that the tip on the end of the shuttles would frequently become loose, or the wood split, what would be more natural than to suggest the driving of the bolt through the end of the shuttle, and placing a nut on the end of the bolt, and screw it up tightly? The shuttle, as thus constructed, performs no new function. It operates precisely as it did before the improvement was made. The improvement is superior to the old methods in the mechanical structure of the shuttles, but is not, in my opinion, of such a character as required inventive skill. In *Hollister v. Manufacturing Co.*, 113 U. S. 72, 5 Sup. Ct. Rep. 717, the court, having under consideration a patent for an improvement of a revenue stamp for barrels, etc., used language applicable to the improvement, as made in this case, by adding the nut to the bolt of the screw. The invention—

"Seems to us not to spring from that intuitive faculty of the mind put forth in the search for new results or new methods, creating what had not before existed, or bringing to light what lay hidden from vision; but, on the other hand, to be the suggestion of that common experience, which arose spontan-

ly and by a necessity of human reasoning in the minds of those who had become acquainted with the circumstances with which they had to deal. \* \* \* As soon as the mischief became apparent, and the remedy was seriously and systematically studied by those competent to deal with the subject, the present regulation was promptly suggested and adopted, just as a skilled mechanic, witnessing the performance of a machine, inadequate, by reason of some defect, to accomplish the object for which it had been designed, by the application of his common knowledge and experience, perceives the reason of the failure, and supplies what is obviously wanted. It is but the display of the expected skill of the calling, and involves only the exercise of the ordinary faculties of reasoning upon the materials supplied by a special knowledge, and the faculty of manipulation which results from its habitual and intelligent practice; and is in no sense the creative work of that inventive faculty which it is the purpose of the constitution and the patent laws to encourage and reward."

To entitle a party to a patent, the invention must be new and useful, and the improvements must be of such a character as requires invention to make them. In *Dunbar v. Myers*, 94 U. S. 187, Mr. Justice CLIFFORD, in delivering the opinion of the court, said:

"The patent act confers no right to obtain a patent except to a person who has invented or discovered some new and useful art, machine, manufacture, or composition of matter, or some new and useful improvement in one or the other of those described matters."

The patent in that case was for an improved machine for sawing thin boards, etc. Among other things, a circular saw was used, made of thin steel plate, such as is used for sawing veneers, on one side of which was a circular plate secured by rivets or screws, the plate being less in diameter than the saw, which had the effect to stiffen the plate of the saw, and to enable the operator to use a thinner saw than he would otherwise be able to do. The learned justice in the course of the opinion said:

"Circular plates attached to circular saws, secured by rivets or screws, for the purpose of strengthening the central portion of the saw-plate, and sometimes called 'stiffening plates,' are old devices which have been known to the operators of the circular saw ever since the circular saw came into general use for sawing shingles, laths, and clapboards. \* \* \* Ordinary mechanics know how to use bolts, rivets, and screws, and it is obvious that any one knowing how to use such devices would know how to arrange a deflecting plate at one side of a circular saw, which had such a device properly arranged on the other side."

In *Atlantic Works v. Brady*, 107 U. S. 200, 2 Sup. Ct. Rep. 225, Mr. Justice BRADLEY, in delivering the opinion of the court, said:

"The design of the patent laws is to reward those who make some substantial discovery or invention, which adds to our knowledge and makes a step in advance in the useful arts. Such inventor is worthy of all favor. It was never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufactures. Such an indiscriminate creation of exclusive privileges tends rather to obstruct than to stimulate invention."

In that case it was held that the placing of a screw for dredging at the stern of a screw propeller, when the dredging had been previously accomplished by turning the propeller stern foremost, and dredging with the propelling screw, was not a patentable invention. The views above expressed are sustained by numerous authorities: *Pencil Co. v. Howard*, 20 Wall. 498; *Reckendorfer v. Faber*, 92 U. S. 347; *Double-Pointed Tack Co. v. Two Rivers Manuf'g Co.*, 109 U. S. 118, 3 Sup. Ct. Rep. 105; *Pennsylvania R. Co. v. Locomotive Engine Safety Truck Co.*, 110 U. S. 490, 4 Sup. Ct. Rep. 220; *Yale Lock Co. v. Greenleaf*, 117 U. S. 555, 6 Sup. Ct. Rep. 846; *Pomace Holder Co. v. Ferguson*, 119 U. S. 335, 7 Sup. Ct. Rep. 382; *Phillips v. City of Detroit*, 111 U. S. 604, 4 Sup. Ct. Rep. 580. The demurrer is sustained, and bill dismissed.

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FRANCY *et al.* v. EMPIRE FIRE CLAY CO.

(Circuit Court, S. D. Ohio, E. D. September 3, 1891.)

PATENT NO. 370,437—MANUFACTURE OF WALL COPING—EXTENT OF CLAIM—PATENTABILITY.

Letters patent No. 370,437, dated September 27, 1887, John Francy and others present owners, claiming an improved method of manufacturing wall coping by moulding two complete coping sections into a single article having reduced end portions, and drying and baking said article, and finally severing it at its reduced ends, cannot be construed to cover the "article of manufacture" described in the specifications, but must be limited to the "method of manufacture;" and this "method," in view of the state of the art, and British patents Nos. 2,458 issued in 1856, 2,018 issued in 1857 to Doulton, 3,136 issued in 1862 to Taylor, and 2,990 issued in 1878, and of United States patent No. 211,618 issued January 28, 1879, to H. B. Comb, does not involve invention or patentability.

In Equity.

Bill by John Francy and others against the Empire Fire Clay Company for infringement of patent. Dismissed.

*Harrison, Olds & Henderson*, for complainants.

*Wm. L. Pierce*, for respondent.

JACKSON, J. This is a suit for alleged infringement by defendant of letters patent No. 313,583, dated March 10, 1885; No. 370,437, dated September 27, 1887; and No. 371,574, dated October 18, 1887,—of which the complainants are the present owners. At the hearing complainants abandoned their claim that patents Nos. 313,583 and 371,574 were infringed by respondent, and relied alone upon the infringement of patent No. 370,437, relating to wall coping. The claims of said patent are the following:

"(1) The improved method herein described of manufacturing wall coping, the same consisting of moulding two complete coping sections together in a single article, drying and baking said articles, and finally severing the sections as specified. (2) The improved method of manufacturing wall coping herein described, the same consisting of moulding two complete coping sec-