

McMURRAY v. MILLER AND another.

Circuit Court, D. Maryland.

May 16, 1883.

PATENTS FOR INVENTIONS—IMPROVEMENTS IN SOLDERING
TOOL—PATENT NO. 115,760 VOID.

As the improvement claimed in patent No. 115,760, granted to McMurray and Hollingsworth, June 6, 1871, for an improvement in soldering tools, is merely the result of mechanical skill and not invention, and the improved device is substantially identical with that for which patent No. 104,412 was granted to J. A. Bostwick, June 21, 1870, the patent granted to McMurray and Hollingsworth is void.

In Equity.

Benjamin Price and Archibald Stirling, Jr., for complainants.

Sebastian Brown, for defendant.

WAITE, Chief Justice. This is a suit in equity to restrain an alleged infringement of a patent issued to Louis McMurray and Robert J. Hollingsworth, on the sixth of June, 1871, No. 115,760, for “certain improvements in a soldering tool.” The invention consisted “in *An* improvement in the construction of the soldering tool for which letters patent were granted to J. A. Bostwick on June 21, 1870, by providing the soldering iron with a vertical hollow stem, through which the presser-rod plays, guided in the handle of the stem, as will be generally explained in the following description, and specifically 472 pointed out in the claim.” Annexed to the patent were drawings as follows:

Figure 1, an elevation of the improved soldering tool, and figure 2, a vertical section of the same, showing the mode of operation. The description and claim are in these words:

“The iron, A, is a short block, having a recess, *a*, formed in one end corresponding in outline with the caps which the tool is designed to solder to tin fruit-cans and the like. The rim, 6, bounding the recess, is beveled to an edge, or nearly so. An aperture is formed through the block, A, longitudinally, which is tapped at the end opposite to the recess, *a*, to receive the hollow stem, B, which is screwed into it. The block and stem may be formed in one piece, if preferred, but both must always be made hollow. The outer end of the hollow stem is screwed into a wooden handle, 0, in which a presser-rod, D, is snugly fitted. The presser-rod passes through the hollow stem into the iron to press upon the cap and hold it firmly to the top of the can while being soldered to the latter. It is made of sufficient length to extend a short distance above the handle, C, when it rests on

the cap, and terminates in a wooden knob, *d*, on which to press with the palm of the hand or with one finger, while the iron may be turned at the same time with the other fingers of the same hand, taking hold of the handle, *C*. “When the iron, *A*, is to be heated, the presser-rod, *D*, is drawn out of it a sufficient distance into the hollow stem 89 that it will not be affected by the fire to any extent. In applying the tool as shown in figure 2, the presser-rod is projected through the iron, *A*, to first press the cap, *c*, down on the can-top, *E*. The handle, *C*, is then pushed down on the rod to bring the edge of the iron in contact with the solder, *e*, in the crease of the can-top, and fuse it. The iron is lifted off the can-top a moment before the presser-rod is, so as to allow the solder to set while the cap is still being pressed to the can. The greater utility of this tool over that patented by Bostwick consists in its compactness, and that it can be operated with one hand.

“What I claim as my invention, and desire to secure by letters patent, is the combination of the tubular soldering iron, *A*, hollow stem, *B*, handle, *C*, and presser-rod, *D*, which is guided in the handle to play through the stem and soldering iron, substantially in the manner set forth.”

If this patent is valid, there is no doubt about the infringement by the defendants. The case turns, therefore, on the validity of the patent. The description and claim in the patent of Bostwick which is referred to are as follows:

“My invention relates to the construction and use of a hollow soldering iron for soldering metallic caps, or other projecting pieces, upon metallic oilcans or other vessels; said iron, when made with an inclosing edge of the dimensions and form of the rim or edge of the cap or piece to be soldered, so as to conform thereto when placed thereon, and so extended and formed interiorly as to receive and embrace loosely a guiding-rod to be placed upon the cap to be soldered, to hold the latter down firmly until it has been secured by the 473 solder, and at the same time guide the iron to its proper place upon or against the rim or edge of the cap.”

After referring to drawings, the description proceeds:

“*A* is my improved soldering iron, made of a cylindrical form, to solder circular caps, etc. It consists of a cylinder of metal made thick to retain heat, and hollow to fit over and inclose the projection of the metallic cap to be soldered thereby, its inner diameter at its lower end being somewhat greater than the external diameter of said cap. It is provided with a handle, *B*, secured thereto near its upper end, guarded, as usual, with wood or other nonconductor of heat. Its lower rim, *a, a*, is beveled, so as to present a narrow edge to hold the solder in applying the same to the joint. The inner diameter of its upper end is made smaller than that of its lower end, so as to form a shoulder, *e*, therein about midway of its length. *C* is a rod whose lower end is of a diameter about equal to that of the cap or projection to be soldered, but which is reduced in diameter above the same, so as to form a projecting offset or shoulder, *d*, a counterpart of that (*e*) within the soldering iron. After the iron has been properly heated, it is slipped over this rod, and the rod, being then placed upon the cap, is held thereon firmly while the lower rim of the heated iron,

duly supplied with solder, bearing upon the joint of the cap with the vessel, will instantly solder and secure the same about its entire circumference. By lifting the rod, its shoulder, engaging with the offset within the iron, will take up the latter with it in readiness to be placed upon another cap, and thus a number of caps may be quickly and thoroughly soldered at one heat of the iron. I contemplate making the soldering iron, A, and its guiding-rod, C, of any form in transverse section which may be required to cause it to fit any form of cap or other projection, whether round, square, oval, or of any other curved or polygonal shape. Its lower rim or edge need not be made continuous, but may be broken or slotted.

“I claim as my invention the hollow soldering iron, A, having a handle, B, and beveled rim, *a, a*, in combination with the rod, C, substantially as herein described and set forth.”

In my opinion the improvements made by McMurray and Hollingsworth on the device of Bostwick fall within the domain of mechanical skill, rather than invention. Bostwick combined a hollow soldering iron, having a beveled edge and a handle attached near the top, with a guiding or presser-rod. His soldering tool produced substantially the same result as that of McMurray and Hollingsworth, and was operated substantially in the same way. The soldering iron melted and distributed the solder by being moved to a greater or less extent around or upon the guiding-rod, and the guiding-rod assisted in conducting the soldering iron to its proper place for soldering, and in holding the cap in position until the soldering was done. The handle, in connection with the space between the shoulder on the guiding-rod and the offset on the soldering iron, enabled the operator to move the iron on the can for the purpose of distributing the solder, and to raise it without taking the pressure from the cap until the solder was sufficiently set for the tool to be safely removed. The shoulder on the rod and the offset in the iron provided a way of moving the tool when the work was done, and placing it on another can for another operation.

The patent of Bostwick did not specify the length or particular shape of the soldering iron further than that it should be beveled at the lower edge, and hollow. It was enough if it was so made that it could be slipped over the rod and guided to its proper place on the can. It might be of any length, any size, or any external shape. Neither was there any special requirement as to the kind of handle, or the way of attaching it. All these matters were left to the judgment of the maker of the tool, and they might be varied to meet the varying requirements of use.

While the patent of McMurray and Hollingsworth is nominally for a combination of four elements, there are in reality but three, even according to the description that is made. The “hollow stem” is in legal effect only a part of the “soldering iron,” for it is expressly stated that the “iron and stem”—that is to say, the “soldering iron” and “hollow stem”—may be made in one piece, if preferable. Construed in this way, the provision in the patent for the soldering iron and hollow stem amounts to nothing more than that the soldering iron should be of sufficient length to allow the attachment of a wooden handle encircling the iron at its upper end, and that in accomplishing this the iron may be reduced in circumference as it recedes from the point where the heat is to be applied. The

device of McMurray and Hollingsworth is, then, a combination of a hollow soldering iron, bevelled at its lower edge, and having a handle at the top, with a guiding or presser-rod. Unless, therefore, there is some substantial difference in the manner of the combination, this device is the same as that of Bostwick. The soldering iron and handle are clearly within the Bostwick patent. The iron is hollow, is beveled at the bottom, and the handle is attached at the upper end. The iron may be longer and somewhat different in shape from that which Bostwick had in his mind when he got his patent; but there cannot be a doubt that if it had been used with Bostwick's other devices it would have been an infringement on his rights.

Next, as to the guiding or presser-rod. The device of Bostwick for guiding the soldering iron to its place is at the bottom of his guiding-rod where it comes in contact with the top of the cap to be soldered. That of McMurray and Hollingsworth is in the handle at the top of the soldering iron. In both devices the rod is pressed on the cap to hold it in place, and while in this position it furnishes the means of conducting the iron where the work of that part of the tool is to be done. In both, the hand of the operator is required for the nice adjustment of the iron, and the rod serves only to give the general direction. Clearly, therefore, the one is the mechanical equivalent of the other, so far as the guidance of the iron is concerned.

The presser-rod of McMurray and Hollingsworth can undoubtedly be made smaller than Bostwick supposed it would be necessary for his to be, but he nowhere gives any special direction as to size. His object was to put the cap in place and guide the iron to the point where the soldering is to be done. It is nowhere intimated, even, that the rod is to be heavy enough to keep the cap in place while the iron is doing its work. It is evident, on the contrary, that this was not expected, because it is in express terms provided that after the rod is placed on the cap, it is to be *held* thereon firmly while the heated rim bears on the joint to be soldered. Almost necessarily, in working the iron, the hand or something else must be used to steady the rod. All this could properly be considered by the maker when he was constructing the tool, and he would be at liberty to vary the length or size of the rod to suit the circumstances. Lightening the rod and supplying the loss of weight by the pressure of the hand would not be invention. It is simply using mechanical skill to reduce in some degree the weight and cost of the tool.

Another difference in the structure of the tools is found in the contrivances for separating the rod from the soldering iron, and moving the tool from one place to the other. Bostwick raised his soldering iron from off the rod; McMurray and Hollingsworth drew the rod out through the top of the iron. Bostwick moved the tool by taking hold of the upper end of the guiding-rod; McMurray and Hollingsworth by the handle on the top of the soldering iron. This was because in the Bostwick tool the shoulder on the rod came in contact with the offset in the iron, on the inside of the iron, and the aperture at the top of the soldering iron was smaller than the bottom of the rod. In the McMurray and Hollingsworth tool, however, the shoulder and offset were transferred to the outside of the iron; the top of the handle on the iron performing the part of the shoulder on the rod, and the bottom of the knob on the top of the rod that of the offset in the iron. Clearly

these devices are mechanical equivalents, the one of the other, and not in this connection the subject of patentable invention.

476

Looking, then, at the two tools I am clearly of opinion that McMurray and Hollingsworth were wholly anticipated by Bostwick. Their tool may be, and undoubtedly is, more compact, and of greater practical utility, than any which had been made by Bostwick before their patent; but it is because of their greater mechanical skill in adapting his combination of elements to practical use. Both tools do the same work in substantially the same way. The changes of McMurray and Hollingsworth were in form only, not in substance. The elements in both were the same, and so was the combination.

This makes it unnecessary to consider any of the patents relied on as anticipations. The tool of McMurray and Hollingsworth is in reality that of Bostwick, improved by mechanical skill in its construction, not by invention.

I find nothing in *McMurry v. Mallory*, 5 Fed. Rep. 593, in conflict with this. All that case decides is that the Bostwick patent was not infringed by what was known as the “Tillery soldering tool.” The question in this case is whether the discovery that by making the soldering iron of Bostwick sufficiently long the other parts of his tool might be more conveniently arranged for practical use, was invention. I think it was not. To use the language of Mr. Justice Swayne, in *Smith v. Nichols*, 21 Wall, 112, it is the “mere carrying forward 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, with better results,” and therefore “not such an invention as will sustain a patent.”

A decree may be prepared dismissing the bill.

This volume of American Law was transcribed for use on the Internet through a contribution from [Cicely Wilson](#). ★