EXCELSIOR NEEDLE CO. *v.* UNION NEEDLE CO.

Circuit Court, S. D. New York. February 23, 1885.

PATENTS FOR INVENTIONS—NEEDLE-MACHINE—SUBSEQUENT PATENT OF NEEDLE VOID.

The patentee of a machine, capable of producing needles of a superior quality, subsequently obtained a patent upon the product of such machine. *Held,* that the latter patent was void, as an attempt to patent the function of the machine, and thus extend the monopoly of the invention beyond the time allowed by law, and that an action could not be maintained against one manufacturing the same kind of needles by the use of the machine after the expiration of the patent thereon, when the right to use it had become vested in the public.

In Equity.

Solomon J. Gordon, for plaintiff.

James E. Maynadier, for defendant.

WALLACE, J. Hopson and Brooks were the inventors of a machine for compressing articles of metal in dies, and letters patent therefor were granted to them August 9, 1864, and reissued December 12, 1865. The specification, among other things, states:

"Our invention has for its object the compressing of metal to a smooth, round form, corresponding to the shape of the dies, and consists in a divided die, that is forced together two or more times during each revolution around the article to be formed, and, by a series of compressions upon the sides of such article, reduces the same to the size and shape of the opening or cavity of the dies, and gives to the article great density, as well as a smooth, round, and uniform shape, and there is no loss of material like there is in the turning, milling, and grinding operations heretofore pursued, and which do not harden or render the metal dense and strong, and there are no burrs, angles, projections, or roughness on the surface, as heretofore usual with articles struck up in dies."

The specification then describes a shaft, a longitudinal jaw, cams, and dies, and screws, and proceeds:

"The mode of operating this machine is as follows: The end of the piece of metal to be pointed or otherwise shaped is entered between the dies, *i, i,* and pressed into them, which slightly opens said dies. The revolution of the shaft, B, brings the projection, O, of the jaw, D, into contact with the end of one of the cams, K, which cam is adjusted so that it will close the dies, *i, i,* and, in so doing, compress the wire or metal, and these operations are repeated; the end of the wire or piece of metal being pressed in a little further each lime the jaw is relieved and allowed to slightly open, until the same is perfectly formed or given the shape of the opening in the die, and the metal is compressed and extended without any burr or projection being formed on the same; and the metal is rendered much more dense by this compressing action than it would be if the metal was filed or ground away to the required shape. The screw, G, regulating the extent to

which the metal can open the die each time, prevents injury to the machinery by too great reduction at once. The mechanism herein set forth may be employed for shaping, in a circular form, the point of a pin, or any other article to which it may be adapted. It will be evident that there is no waste of material, as the metal is compressed and

elongated, thus effecting a saving of stock over the methods heretofore pursued, and making a much better article."

The first claim is as follows:

"A divided die, fitted and actuated substantially as specified, and operating, by a series of compressions upon the article to be formed, to give to such article a smooth, round shape, corresponding to the shape of the dies, as set forth."

There are two other claims, covering various parts of the machine in combination.

In using this machine, Hopson and Brooks employed dies of various kinds, including those of proper form for swaging pins, buckle tongues, and similar articles, and also for swaging needles for sewing-machines. In December, 1864, they employed Mr. Mandeville to assist them in improving the surface of the wearing parts, and in increasing the power of the machine, and on February 6, 1866, a patent was granted to Hopson and Brooks, assignees of Hopson and Brooks and Mandeville, for these improvements. In the specification of this patent the form of dies for forming sewing-machine needles is pointed out as being "of the shape of the needle or other article to be formed," but is hot made in any way a constituent of the claims. On August 11, 1866, Hopson and Brooks made application for another patent, which was granted to them July 4, 1871, for "an improvement in sewing-machine needles." The present suit is brought upon this patent. The specification is as follows:

"The needles for sewing-machines are formed with a shank that is of larger diameter than the needle itself. This enables the needles to be secured into the machine. In order to reduce the needle itself from the size of wire required for the shank, various devices have been employed, such as milling-tools, or grinding-wheels, and also turning-tools, that reduce the wire to the size which the parts may be adjusted to produce; but; in consequence of the wear upon the tools, there is no reliability in the sizes of the needle blanks. Besides this, it is well known that a steel bar or wire is not entirely homogeneous; that the compression in drawing the wire makes the surface more dense than the core; hence the turning or milling removes the best portion of the metal, leaving the needle of an inferior quality. In order to manufacture our improved needles we make use of a compressing die, closed or pressed together rapidly around the steel wire as said wire or the dies are revolved. Thereby there is a series of compressions and a gradual extension of the steel, which brings the same down to the proper size for the needle. The machines which we prefer to use for this purpose are similar to those patented by us August 9, 1864, reissued December 12, 1865, and by us, as assignees, February 6, 1866. Needles made by our machine or method possess properties not heretofore found in sewing-machine needles, and are hence new and much more useful and durable than others heretofore made. The peculiar properties of our needles may be set forth as follows: The needles are of a uniform density and size. They are free from flaws, hard specks, and inequalities, always existing in

steel that is turned or ground down from a drawn wire. They are very tough, and cannot be easily broken. They have a surface that is very dense and perfectly smooth, requiring no polishing by hand. They can be grooved with uniformity, being themselves of a regular size, and the steel, by the compression, is more uniform, and the grooving-tools will wear much longer than in grooving ordinary needles. The needles are not injured in

the hardening and tempering, as less heat is required to bring the needles to the required spring, hardness, or temper."

The claim is as follows:

"A sewing-machine needle possessing the peculiarities specified, and forming a new article of manufacture."

After the expiration of the two patents for the machines, the defendants used such machines, or machines substantially like them, for manufacturing swaged sewing-machine needles.

Upon these facts, the patent for the needles, now owned by the complainant, must be held to be void. The real invention of Hopson and Brooks was a machine for swaging metal, and any novelty which exists in the articles made by that machine is the result of the functions of the machine. It is explicitly stated in the specification of the patent that the "needles made by our machine or method possess properties not heretofore found in sewing-machine needles, and are hence new and much more useful and durable than others heretofore made." The patent is an attempt to appropriate a function of the machine, and thus to extend the monopoly of the invention beyond the term allowed by law. If successful, it would result in charging as infringers the defendants and all others who, at the expiration of the machine patent, were entitled to avail themselves of the invention, which had become public property. There was no invention in applying the means provided by the machine to the making of the needles or other articles for which the machine was adapted. Any mechanic skilled in the art could do this as well as the inventors of the machine. The patent of 1866 is not deemed of any importance in this view. The first covers the whole invention, so far as it relates to the product patent, and any change in the form of the dies, introduced after the first patent was obtained, was merely a matter of mechanical adaptation, and not substantive invention.

It does not aid the complainant's case to concede that Hopson and Brooks might have claimed in their first patent both the apparatus and the product or article made by it. If they were the inventors of a new manufacture,—a needle which was not only commercially new, but new in the sense of the patent law,—they might have claimed both the machine and the product, according to the language of Mr. Justice SWAYNE in *Rubber Co.* v. *Goodyear,* 9 Wall. 788. It is to be remarked, however, that in that ease the product of a process was the subject of the patent, and not the product of a machine. The distinction between a patent for the product of a process and one for the product of a machine is pointed out in *Corning* v. *Burden,* 15 How. 252, 268, by Mr. Justice GRIER, as follows:

"But the term 'process' is often used in a more vague sense, in which it cannot be the subject of a patent. Thus we say that a board is undergoing the process of being planed; grain, of being ground; iron, of being hammered or rolled. Here the term is used subjectively or passively, as applied to the material operated upon, and not to the method or

mode of producing that operation, which is by mechanical means, or the use of a machine as distinguished from a process. In this use of the term it represents the function of

a machine, or the effect produced by it on the material subjected to the action of the machine. But it is well settled that a man cannot have a patent for the function or abstract effect of a machine, but only for the machine which produces it."

If the patentees might have claimed the product originally, they did not do so; and, if the failure to do so was owing to mistake or inadvertence, they should have resorted in due season to a reissue, to correct the patent. The decisions which adjudge that an inventor may have a patent for an invention described in the prior patent, but not claimed, when he has not lost his rights by unreasonable delay, have no application to a case like this. Here the real invention was claimed in the prior patent, but the patentees now seek, by claiming another invention, to deprive the public of that which became theirs when the patent expired. The improvements in the needles themselves all fall within the category of degree, and the invention was not the manufacture but the machine. *Smith* v. *Nichols,* 21 Wall. 112; *Wooster* v. *Calhoun,* 11 Blatchf. 215.

The bill is dismissed.