

CLEMENT MANUF'G Co. et al. v. UPSON & HART Co. et al.
 (Circuit Court, D. Connecticut. May 26, 1892.)
 No. 681.

PATENTS FOR INVENTIONS—INVENTION—TUBULAR HANDLED TOOLS.

Letters patent No. 241,471, issued May 17, 1881, to James Beecher, for an improvement in the manufacture of cutlery and tools, consisting in simultaneously welding a tubular handle to a blade, and closing up the opposite end of the handle by forging between dies, possesses patentable invention.

SAME—INFRINGEMENT.

In the Beecher patent the handle was formed of a rectangular plate, which was formed into a cylinder, the joint being welded. This was then raised to a welding heat, and placed between dies, so that the blow of the hammer produced a lap weld at the end of the handle. Defendant used a plate having lobes or projections at the ends, and, after being formed into a cylinder, these lobes were bent inwards, and the dies were so constructed that in operating upon this formation they produced a butt weld. Held, that the processes were radically different, and there was no infringement.

In Equity. Bill for infringement of patents. Dismissed.

For prior opinions respecting the patents in litigation, see 40 Fed. Rep. 471; 42 Fed. Rep. 530; 43 Fed. Rep. 670.

Edward F. Beach and J. E. Maynard, for plaintiffs.

John P. Bartlett, for defendants.

SHIPMAN, Circuit Judge. This is a bill in equity, which is based upon the alleged infringement of letters patent No. 241,471, dated May 17, 1881, to James Beecher, for an improvement in the manufacture of cutlery and tools, and of letters patent No. 368,061, dated August 9, 1887, to Henry A. Brognard, for improvements in the manufacture of hardware having hollow handles. Before the date of the Beecher invention,—which was at least as early as May, 1879,—the butt ends of the hollow handles of cutlery had been closed up or welded by striking the ends with a cupping die; the blade being welded to the other end of the tubular handle at a prior or subsequent operation. Hollow-handled cutlery had not been formed by simultaneously welding a tubular handle to a blade and closing up the opposite or butt end of the handle, the simultaneous operation being performed by forging between dies. The general object of the Beecher invention was to do this thing. The invention is described by the patentee in his specification as follows, omitting the references to the drawings:

"I provide a rectangular blank of sheet iron, which I form over a mandrel, and weld up into an open-ended tube, corresponding substantially in cross section with that desired for the handle. The blank is of sufficient size to make one handle only. * * * The steel blade is of the ordinary construction, and is provided with a short longitudinal projection or tang at its end nearest the handle, by which it is united thereto, as presently to be described. The tubular handle and blade, having been raised to a proper welding heat in a furnace, are then removed therefrom. The tang of the blade is inserted into one of the open ends of the handle, and the handle and blade are placed between a pair of forming dies, the conformation of which corresponds with that desired for the handle, and the concavity of which is of slightly less length than the partially formed handle. The application of the impact of a drop hammer to the dies and the contained blade and handle is then made,

with the result of simultaneously welding together the handle and blade, and closing up the open end of the handle furthest from the blade."

The two claims of the patent are as follows:

"(1) The improvement in the art of manufacturing cutlery and tools which consists in simultaneously welding a tubular handle to a blade or head, and closing up the opposite end of the handle by forging between dies, substantially as set forth. (2) As a new article of manufacture, a knife or other piece of cutlery or tool having a hollow handle united by welding to its blade or head, and having its ends closed simultaneously by forging between forming dies, substantially as set forth."

The object which Beecher desired was something more than merely a simultaneous welding of both handle and blade and the closing of the butt end of the handle at one blow. The hollow-handled knives which had been previously made were, as a rule, defective by reason of imperfect welding at the butt end of the handle, and consequent leakage. The acids which were used in the plating process penetrated the interior of the handle, and afterwards leaked out, and this tendency to leakage had been the great obstacle to the manufacture of such knives. Hollow-handled knives which would not leak, either in plating or in use, were a desideratum. It was a matter of common knowledge that if an article was raised throughout its entire extent to proper forging heat, and put in suitable dies, they would act simultaneously upon both ends of the article so placed in them. There was no difficulty in simultaneously welding the blade and handle, and crushing together the edges of the opposite end of the handle. The material part of the simultaneous process was such a construction of the blank and dies as to cause, by a blow upon the sides of the tube, in addition to the welding of the blade and handle, a closing of the open end of the tube in such manner as to produce a complete union of its edges. The shape of Beecher's dies is vaguely shown in the drawings, but it appears both from the specification and the drawings that the partially formed tube was to extend slightly beyond the length of the concavity of the dies, and that consequently a portion of the metal must be drawn out between their flat surfaces, and would be welded together as a lap weld. After knives began to be manufactured under this patent as a commercial article, it was ascertained that, under the requirements of manufacturers who plated and thereafter sold the knives, they could not be made at much profit at the price at which they were obliged to be sold. The action of the dies in drawing out between the flat surface a portion of the metal left "that portion of the edges of the end of the tube, which were covered within the die form insecurely welded, and not of good strength," after the fin was removed. A good many imperfectly welded handles leaked, and must be rejected, which seriously diminished the profit. It became apparent that the Beecher form of dies would result in an undue number of insecurely welded handles, and that a new blank and new die were required. In this condition of the practical manufacture of hollow-handled knives, the patent of Horatio Jordan, dated July 5, 1887, was issued, which described a method of butt welding the end

of the tube, which consisted in shaping the end so as to form lobes or projections adapted to be bent inwardly towards each other, in subsequently bending them towards each other, and in drop forging. The complainants also owned this patent, and brought a suit in equity in this court against the defendants for its infringement. The history of the art so far as it relates to butt welding is given in the opinions in 42 Fed. Rep. 530, and 43 Fed. Rep. 670. The defendants use a Jordan blank,—that is to say, a blank for the handle, with lobes at the end. These projections, before the blank is put into the forging die, are inclined towards each other, so as to substantially cover the butt end of the blank. The handle and blade are assembled and simultaneously forged in the die. The handle blank is inclosed in the die cavity, instead of resting on the face of the die block beyond its cavity. The weld which is created at the butt end of the handle is a butt weld.

I entertain no question that the Beecher invention was patentable. Its history before and since the date of the application satisfies me that it was the product of an inventive mind. It was vaguely disclosed in the patent, but I make no adverse finding upon that point. The important question in the case relates to the infringement of the patent. The first claim is for a process. The second is for the product of the process. The invention consisted in the described method by which the simultaneous welding, between dies, of handle and blade, and the closing of the butt end of the handle, was performed, in contradistinction from the former method, which took two operations by different set of dies, one of which closed the butt end, and the other which welded the blade and handle. The complainants claim, in substance, that whenever there is a simultaneous welding of the tubular handle blank to the stub, and a closing up of the opposite end of the handle by forging between dies, the patent is infringed. Such a proposition substitutes the result of the process for the various steps which led to the result. The process consists in the various steps by which the result is attained, and the question of infringement is to be answered by ascertaining whether the alleged infringer has used in substance the same series of acts which the patentee described in his patent. The difficulty in the satisfactory solution of this question consists in the fact that the Beecher invention was rudimentary, and the mind is called upon to compare a crude and commercially unprofitable process with a successful one, and see whether the radical characteristics are the same, and whether the differences are mere improvements, or are substantial differences in the two series of acts. It is also to be borne in mind that the mere noncommercial success of the earlier invention is a fact which is not to have weight in discriminating between the two processes. The first act in the Beecher process is to cut out a rectangular blank. The corresponding act in the defendants' process is to cut out a blank with lobes or projections at one end, which are adapted to be bent inwardly. The second step of Beecher is to form his blank over a mandrel and weld it "up into an open-ended tube." This welding was undoubtedly not to be done by the aid of dies, but the language shows that the tube was to be closed longitudinally. The defendants roll their blank over a man-

drel, and do not close or weld the sides of the tube. This difference is one merely of form, and not of substance. Beecher then placed the assembled handle blank and implement blank, after they had been raised to a welding heat, in forming dies. The result of the impact of a hammer upon the dies was the welding of blade and handle, and the closing of the opposite end of the handle by a lap weld. The defendants closed the lobe end of the handle by hammering, or in some other way, before it and the blade blank were heated and placed in dies. This preparatory formation of the end of the handle permitted the use of dies of different shape from that of Beecher, which formed a butt weld. The initial difference between the two processes was the shape of the blanks, which made the subsequent difference in the shape of the dies and in the result of the process attainable. The Beecher process commences with a squarely cut tube, and next inserts the tube in dies so shaped that the result of a lap weld is inevitable, while the defendants subject a tube having lobe-like projections to the operation of dies which will make a butt weld. Was this difference—which is one of shape or form, as presented to the eye—a difference which belongs “to the substance of the process.” “A process is a mode of treatment of certain materials to produce a given result.” *Cochrane v. Deener*, 94 U. S. 780,—which was simultaneous welding of the various parts of a hollow-handled knife, so as to securely close the edges of the butt end of the handle. To accomplish the object, Beecher started with a squarely cut blank, and a pair of dies which must make a lap weld. The defendants started with a lobed blank, which was subsequently known as a “Jerals & Lawton Blank,” and inserted that blank in a pair of dies which led to a butt weld. The difference in the two processes was radical, not because the latter process made a better commercial result than the other, but because the metal was treated and manipulated in a different way, which made a different kind of welding as the result of the process.

The Brognard invention is explained by the inventor, in his testimony, as follows:

“The thing set forth is a compound blank, made up by assembling a tubular handle-forming blank and a stub having a bolster already formed thereon, so that the portions of the tube and stub or blade forming piece at the point of weld will constitute the portion of the device on which the neck is to be formed.”

The claims are as follows:

“(1) The tube or hollow cylinder, and the solid head or blade piece having a bolster formed thereon, assembled together so that the portions of the tube and blade piece at the point of weld will constitute the portion of the device on which the neck is to be formed, substantially as described. (2) The method of manufacturing hollow-handled cutlery, consisting in welding the head or blade piece, having a bolster formed thereon, to the handle by means of dies, and effecting that welding by that part of the dies designed to form the neck of the finished handle, substantially as described.”

A bolster in a knife was long ago a well-known part of the article, and could be produced by shaping the dies accordingly. In the Beecher patent it is said:

"Bolsters of any required size or design can be produced simultaneously with the uniting of the blade and handle and the closing of the handle end by correspondingly shaping the dies at the point where the bolster is to be located."

It is claimed that the bolster of Brogiard has a special character in this: that it has a shoulder, which defines its exact position in the tube, so that the line of weld connecting the two pieces will take place in the hollow part or neck of the handle, where it will be entirely hidden when the article is finished. I do not perceive anything of a patentable character in this particular bolster, and, if it is patentable, the defendants' bolster and method of assembling and manufacturing the compound blank, which are claimed to be an infringement, preceded the date of the invention.

The bill is dismissed.

ROBBINS *et al.* v. ILLINOIS WATCH Co. *et al.*

(Circuit Court, N. D. Illinois, N. D. January 4, 1892.)

1. PATENTS FOR INVENTIONS—STEM-WINDING WATCH—NOVELTY.

Reissued letters patent No. 10,631, granted August 4, 1885, to Royal E. Robbins and others for a "stem-winding watch," having a device whereby the shifts from the winding and hands-setting engagements to each other are not effected by the direct force of the push and pull upon the stem arbor, but are brought about by longitudinal movements of the stem arbor, which bring into action light springs arranged to swing the yoke, which carries the winding and setting trains, are not void for want of novelty. *Robbins v. Aurora Watch Co.*, 48 Fed. Rep. 531, followed.

2. SAME—INFRINGEMENT.

Such patent is infringed by a device in which, as in the patented watch, a pivoted yoke is used to effect the engagement of the winding and setting wheels, which yoke is acted upon by two opposing springs, one stronger than the other, the stronger spring being restrained when the winding engagement is to be effected, and being held out of action by pressing the stem arbor inward, and locking it at the innermost position.

3. SAME—SUIT TO RESTRAIN INFRINGEMENT—REISSUE.

Where an infringing device is constructed in accordance with a junior patent, a reissue of the junior patent, pending a suit to restrain the infringement, does not affect the suit, where no new claims are introduced by the reissue.

In Equity. Bill by Royal E. Robbins and others against the Illinois Watch Company and others, to restrain an alleged infringement of certain patents.

Hill & Dixon, for complainants.

West & Bond, for defendants.

BLDGERTT, District Judge. This is a bill in equity, charging defendant with the infringement of reissued patent No. 10,631, issued to complainants August 4, 1885, as assignees of original patent No. 280,709, granted to Duane H. Church July 3, 1883, for a "stem-winding watch, and patent No. 287,001, granted October 23, 1883, to Caleb K. Colby, for an "improvement in stem-winding watch pendants," and praying an