

v.41F, no.13-50 WINELAND *ET AL.* V. PITTSBURGH FORGE & IRON CO.

Circuit Court, W. D. Pennsylvania.

February 28, 1890.

PATENTS FOR INVENTIONS—EXTENT OF CLAIM—PRIOR STATE OF ART—DIES FOR FORGING DRAW-BARS.

In view of the prior state of the art, the fifth and sixth claims of letters patent No. 304,391, for an improvement in the manufacture of draw-bars for railway cars, granted to Dan St. Clair Wineland and Wickliffe C. Lyne on September 2, 1884, if sustainable at all, must be held to be limited to the specific forms of dies shown in the patent.

In Equity.

W. L. Pierce, S. A. Will, and S. U. Trent, for complainants.

J. J. Johnston, D. C. Reinohl, and George H. Christy for respondents.

Before McKENNAN and ACHESON, JJ.

ACHESON, J. The defendant is charged with the infringement of letters patent No. 304,391, granted to the plaintiffs on September 2, 1884, for an improvement in the manufacture of draw-bars for railway cars. The specification of the patent is mainly devoted to a description of that method of manufacturing draw-bars, and of instrumentalities to be therein employed, in which the face-plate is made in two pieces, and each piece is welded to an end of the body portion, which being bent so as to bring together the inner ends of the two half-face plates, the latter are welded together. Among the other described devices employed in this method of manufacture, the patent shows two dies, designated *l* and *k*. The former is a bed-die having a deep cavity for receiving and holding the bent body portion of the draw-bar, and a shallow cavity,—a convex shaped recess,—lettered *l'*, in its upper face, for giving the final shape to the face-plate, and in which the two half sections thereof lie when welded together. The die, *k*, is a drop die for shaping and welding the face-plate, and is provided with a central core, which enters into the opening in the face-plate, and with two outer jaws, *K'*, which project horizontally outward beyond the edges of the cavity *l'*, in the lower die, and act upon the outer ends of the two half face-plates, forcing them down into said cavity. The specification, near its close, contains the following clause:

“In Fig. 15, I show a modified way of forming the face-plate. Here the bar, *b*, is shown as bent in the manner described, without the sections of faceplate welded thereto. A ring or link, *m*, of metal of suitable size and shape, is placed over the ends, *a*⁴, in the cavity, *l'*, of the die, *l*, and is there subjected to a forging action of the die, *k*, which upsets it on the ends, *a*⁴, and in

to the cavity, *l'*, welding it to the former, and giving it the shape of the latter,”

The plaintiffs allege that the defendant infringes the fifth and sixth claims of the patent, which are as follows:

“(5) The face-plate shaping and welding die, *l*, having a cavity for containing the body of the bent draw-bar, and a convexed shaped recess for shaping and welding the face-plate, substantially as and for the purposes described. (6) The combination of the face-plate shaping and welding die, *l*, with the drop die, *k*, having a core which enters the opening in the face-plate when acting thereon in the die, *l'* substantially as and for the purposes described.”

In order to determine what, if anything, of a patentable nature these claims embrace, and the scope that can rightfully be given to them, it will be necessary at this point to examine, in the light of the proofs, the state of the art anterior to the date of the alleged invention. Now, certain it is that long previously the simultaneous welding and shaping of metals by dies was well known and commonly practiced, and it was very old in the art to employ two dies acting against each other, one having a tongue or projection on its working face, and the other a corresponding cavity or recess. It was also, old and common to use dies in the manufacture of draw-bars for railway cars. Referring to Wilson's patent No. 117,954, of a date so early as August 8, 1871, for improvements, in the manufacture of draw-head face plates for railroad car, couplings, we pair of dies for shaping face-plates lower or bed die having a convex shaped recess, and the drop-die a concave face and a depending central, punch. And here it may be stated, that the evidence shows that, it was a common expedient in the arts, long before the date of the invention in question, to provide one of two opposing dies with a stem to enter a corresponding cavity in the other, to act as a guide to the dies and the article operated on. The Wilson patent No. 195,736, dated October 2, 1877 fully explains the several steps for manufacturing drawbars for railway cars under the system first hereinbefore referred to, in which the face-plate, being is first made in two sections; and the patent shows a series of forging, bending, and welding dies, the last step, viz., the welding together of two half face-plates, being accomplished by the use of a curved die. Wilson's patent No. 267,629, dated November 14, 1882, shows a set of dies for forming the face-plate, the bed-die having a deep cavity to receive the entire body of the, blank for the draw-bar, and a wider flat recess of an, oval shape in the upper face of the die to receive the head of the blank, the drop-die having a flat working face. Finally, the drawings of the patent No. 264,015, dated September 5, 1882, for an improvement in the manufacture of the draw-bars, exhibit everything shown by Fig. 15 of the plaintiff's patent, and with more accuracy, do they illustrate the proper manner of placing, with reference to each other, the ring blank for forming the face-plate, and the ends of the bent body portion preparatory to the operation of welding them together. Then, in the body of the specification, the following instructions are given:

“The ring blank thus formed, and the open ends of the blank A, Fig. 2, being raised to a welding heat, are placed together, as represented in Fig. 4, the sides, *c, c*, of the ring being placed upon the end faces, *a*⁴, of blank, A, and the two thus welded together by what is known as a ‘butt weld.’ In doing this, the body blank, A, may be set in the cavity of a suitable die, with the ends, *a*², protruding a little, or the parts may be welded upon an anvil, in the usual manner of working iron.”

Nothing is expressly said in that patent about, the use of a drop-die, but it is not going too far to say that the employment of a device then so well known, and commonly used in working iron, is fairly to be implied. In view, then, of the restricted field of invention open to Wineland, and under the decision of the supreme court in *Peters v. Manufacturing Co.*, 130 U. S. 626, 9 Sup. Ct. Rep. 643, where it was held that that the Peters patent of July 17, 1883, for “an improvement in dies for making dash frames,” was invalid for want of patentable invention, it is a serious question whether the fifth and sixth claims of the patent in suit, or either of them, can be sustained at all. But, if sustainable, assuredly must the plaintiffs be held to be limited to the specific forms of dies shown in the patent.

The defendant manufactures draw-bars by the second method above referred to, in which the ring for the face-plate and the body portion are forged separately, and the two afterwards are welded together; and the defendant’s dies are designed and adapted for use in that method of manufacture only. In doing that work, it is necessary that the upper ends of the side-bars of the body portion, when the latter is set in the deep cavity of the lower die, shall protrude above the forging face of the die, agreeably to the suggestion made in Wilson’s patent of September 5, 1882, and in practice this projection of the ends upwardly is about two and a half inches in extent. The object of this is to provide the required metal for forming the fillets or curved enlargements, on the under side of the face-plate, and to perfect the weld between the face-plate and bars, and strengthen the latter. Now, to the end that the ring may be guided aright, and kept in proper position with respect to the protruding ends of the bars, and also for the purpose of confining the metal during the upsetting operation, and securing its spread in the desired directions, the side walls of the oval cavity or chamber in the defendant’s lower die are carried up at least four inches above the forging face of the die, and in this particular the defendant’s lower die differs from die *l*, of the patent. Then, again, the defendant’s upper die does not have the plaintiffs’ horizontal projecting flanges or “jaws, *k*,” but it enters and fits closely the oval cavity or chamber of the lower die. The plaintiffs’ drop-die, indeed, could not be used in combination with the defendant’s lower-die, for the “jaws, *k*,” would prevent its approach to the metal in the chamber.

These differences between the dies of the two Sets are decisive of the case, for Wineland was a mere improver (exhibiting, at best, but a low degree of originality) of

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old devices, and there is no basis for the suggestion, that the defendant has made merely colorable changes. In our

judgment, the proofs establish that the peculiar features above mentioned, present in the defendant's dies, are necessary for the accomplishment of the work required of them, and that, both in construction and operation, the dies of the respective parties differ materially. It is manifest from the patent itself that the dies *l* and *k* were specially designed for use in that system of manufacture first described in the specification, and treated therein at such length, and they work efficiently in welding together the two half face-plates as the last step in that method. But the evidence satisfies us that those dies are not adapted for successful use in the system of manufacture practiced by the defendant. Upon the whole, we are of opinion that the charge of infringement here made has not been sustained by the proofs, and the bill of complaint must be dismissed. Let a decree be drawn dismissing the bill, with costs.