were rested on its convex side, and a piece were inserted against the outer rim downwards, and there were an arrangement for the lifting of the piece by the use of a spring, with the result that there were an upward movement, instead of a downward one, out of the plane of the target, such a device would be the same device as the one described in Stock's patent; and the same might be true of a device for moving the obstacle away from in front of the target in a sideway direction. But the difficulty with the complainant's case is that the difference between Stock's releasing device and Hebbard's is not confined to the difference between a sideway and a dropping motion of a holding piece. The difference is between the sudden releasing of a target by the positive dropping of a piece from in front of it and the gradual release of a target by a gradual reduction of the friction or pressure force which holds it.

For that reason, we do not think that the first claim of the Stock patent was infringed. We are of opinion that the court below was right in dismissing the bill, and the decree of that court is affirmed.

## CONVERSE v. MATTHEWS.

# (Circuit Court. D. Massachusetts. August 22, 1893.)

No. 2.921.

1. PATENTS FOR INVENTIONS-INVENTION-STOVE KNOBS. Letters patent No. 432,583, issued July 22, 1890, to Edmund Converse, as assignee of William A. Turner, for a hollow sheet-metal stove knob, having a bell-shaped base, so arranged that the abutting edges of the blank, when formed into the knob, constitute a self-supporting circle, show patentable novelty, and are valid.

2. SAME-INFRINGEMENT.

The patent is infringed by a knob of the same construction, except that the abutting edges are serrated so that they do not make the extreme outer circumference of the base continuous.

3. SAME-PRIOR USE-MEASURE OF PROOF.

In order to defeat a patent by evidence of a prior use, the proof must be clear, satisfactory, and beyond a reasonable doubt. The Barbed Wire Patent, 12 Sup. Ct. Rep. 443, 450, 143 U. S. 275, followed.

In Equity. Suit for the infringement of letters patent No. 432,583, issued July 22, 1890, to Edmund Converse, as assignee of William A. Turner, for a stove knob. Decree for complainant.

The article in controversy is a stove knob, which is a hollow sheet-metal knob or handle, particularly adapted to be attached to the door of a cook-ing stove or range, to be grasped when opening and closing the door. Claims 1 and 2 of the patent, which are alleged to be infringed, read as follows: "(1) A sheet-metal knob having a flaring or bell-shaped base, provided with holes or apertures in its sides to allow a circulation of air within the knob, and having the abutting edges, a, a<sup>1</sup>, forming a continuous edge, G, substantially as set forth. (2) A sheet-metal knob having a base formed from a sheet-metal blank substantially circular in form, but having pieces removed therefrom, forming openings in the edge of the blank, and provided with the projections, f. f., having the edges, a. a', arranged to form in the completed base a continuous edge, G, substantially as described."

It is alleged as a defense that in the summer of 1887 one of the defendants.

Ambrose T. Matthews, invented, disclosed to others, and, in partnership with the complainant, Converse, made, publicly used, and sold two or three thousand knobs of a structure similar to that described in claims 1 and 2 of the patent in suit. It appears that in 1887 the complainant, Converse, and the defendant, Matthews, were in business together in Worcester, Mass., under the firm name and style of the Worcester Ferrule Company. Mr. Matthews had charge of the shop, and Mr. Converse devoted what time he could spare from a trucking business, which he also carried on at this time, and which took more than half of his time, to the business of the ferrule company. Mr. Matthews was the inventor of a split-bottom base for knobs, which invention was covered by a patent issued to him in 1886, being No. 354,607. In the spring of 1887, Mr. Matthews had made a lot of small knobs with four-leaf split bases. It is contended that this first lot of small knobs

Fish, Richardson & Storrow and William S. Rogers, for complainant.

Alexander P. Browne and Louis W. Southgate, for defendant.

PUTNAM, Circuit Judge. The device in this case does not suggest a very high degree of inventive power; but it relates to one of that class of useful domestic articles, to encourage and support the improvement of which is within the purpose of the constitution, and of the statutes touching patents. The questions involved are entirely issues of fact, which can hardly be repeated in any other case, and which, therefore, it is to the advantage of no one to elaborate.

On the point of patentability, the court has felt no difficulty, the novelty being especially in so arranging the abutting edges of the upper or outer portion of the bell or base of the knob that they constitute a self-supporting circle. It is enough for the court to say that this, in connection with the other elements of the combination, is undoubtedly useful and novel, and contains the suggestion of something more than mere mechanical skill. Some further observations on this point will be made in connection with the next proposition.

Neither does the court doubt that the respondent has infringed. The mere fact that the abutting edges are serrated by him, so that they do not make the extreme outer circumference continuous, does not constitute a defense, under the other facts of this case. It is true that this style of construction will always raise a question of degree, and may go to such an extent that the useful feature of the complainant's patent, of mutually supporting edges, will disappear; but the court does not find that the characteristics, in this respect, of his device are substantially lacking in the alleged infringing knob.

The defense touching infringement connects itself, to some extent, with that touching patentability. It is claimed that no man can now have a valid patent for merely locating the holes at any particular point in the abutting edges of the leaves of a split-base knob. This is undoubtedly true, and, if that was the pith of the complainant's alleged invention, the patent would be void for want of novelty. But, as already stated, the substantial novelty is not involved at all in the matter of locating the holes, but it relates to combining with them and other matters a self-supporting outer circumference of the bell or base of the knob; and in the opinion of the court the respondent does not avoid that characteristic by contending that the claim is so broad that there is a mere change of location of the parts, without a different or additional function. It is true, as already suggested, that the alleged improvement is apparently of a minute character, and comes rather close to the dividing line between what is patentable and what is the mere product of mechanical skill; but on the whole it appears to the court that this device was the last step which—although, perhaps, a short one—had been for some time sought after, and was necessary in order to complete the art with reference to use, and perhaps more particularly with reference to the cheapness and ease of production. The improvement falls within that class of cases where facts subsequent to the application for the patent have been allowed by the courts to come to its support. In this class are Watson v. Stevens, (decided by the circuit court of appeals in this circuit.) 2 C. C. A. 500, 51 Fed. Rep. 757, and a number of late cases in the supreme court, conveniently grouped by Judge Coxe in American Cable Ry. Co. v. Mayor, etc., of City of New York, 56 Fed. Rep. 149.

The principal difficulty arises from the alleged anticipatory use and sale by the respondent, Matthews. On this point this court must be guided by the rules stated in the Barbed Wire Patent, 143 U. S. 275, 12 Sup. Ct. Rep. 443, 450; and it need not go beyond the opinion in that case for the law applicable to the point now under consideration. The court has there emphatically given the caution that the proof of alleged prior use must be "clear, satisfactory, and beyond a reasonable doubt," and that the burden of proof rests on the party setting it up. The methods in which the court in that case disposed of the alleged instances of anticipatory use illustrate the general principles applicable, aside from the mere question of clearness of proof. It is, of course, not always a sufficient answer that the prior use may be said to have been an experiment; but, if it combines failure with experiment, it is clearly ineffectual, of itself, to defeat a subsequent patent.

The patent in this case covers the product; and therefore, if the like of the product "known or used by others in this country" before the patented invention or discovery was practically a success, it would be of no importance that the method of production was unsatisfactory; although the result might be otherwise if the anticipatory matter was a prior patent or publication, as to which the rule is well-settled that it must show, not only a perfected product, but a practical method of obtaining it. Notwithstanding this, we think the respondent fails to maintain his proposition touching this matter by a clear preponderance of evidence at any point; and we go even further than this, and to the extent of saying that the balance of proof carries with it a strong presumption that whatever was put on the market, as claimed by the respondent, failed to reach a practical and successful standard. On this proposition the concurrence of the fact that the party who claims to have anticipated is the respondent in this case, with the other facts which will be referred to, is of very considerable weight against him. The alleged anticipatory product was said to have been put on the market before January 1, 1888; and from that time until January, 1890, the respondent was continuously engaged with the complainant in making stove knobs, the respondent having immediate charge of the business. At the latter date the respondent withdrew, and commenced a like business on his own account in May, 1890. The patent in dispute was taken out on the application of Mr. Turner, the original patentee, filed March 20, 1890, and issued to the complainant, as Turner's assignee, July 22, 1890. The case shows that respondent, although he had active charge of the business, as already said, did not follow up the alleged anticipatory product, and that he never manufactured, or caused to be manufactured, any knobs of that type, until a year after he commenced business for himself. These facts form a practical verdict by the respondent in favor of the complainant, on the question of the alleged anticipatory use, of great weight, and afford a strong presumption against him. This presumption is all the more weighty, because the respondent does not undertake to connect his infringing manufactures in 1890 or 1891 with the alleged anticipatory product, or show that the former in any way reverted to the latter.

With our rapid progress in mechanical improvements, what an ingenious man fails to accomplish to day, with the appliances now at hand, another ingenious man may accomplish to morrow, with the better appliances which he then finds; and, if the latter acts from his own resources, he is not to be deprived of the fruits of his ingenuity by reason of the prior failure of to-day, although, without taking into account the change in appliances, it may be difficult to understand why and wherein one failed, and the other succeeded. There is no equity or public policy which requires that one should be deprived of his just reward who revives a lost art, whether buried for ages, or for only a few years, although with the latter there is, of course, more necessity for making sure that the revival was not suggested by the knowledge of what had apparently disappeared. Nothing, however, to this effect has been brought to our attention in this record.

On the whole, this part of the case seems to the court to be fully within the spirit of the closing paragraphs of the Barbed Wire Patent, 143 U. S. 292, 12 Sup. Ct. Rep. 443, 450.

Decree for an injunction and an account, with reference to the first and second claims only; complainant to file draft decree on or before rule day in September, and respondent to file corrections of the decree on or before the 16th day of September.

## DETWILER v. BOSLER.

(Circuit Court, E. D. Pennsylvania. July 6, 1893.)

### No. 16.

PATENTS FOR INVENTIONS-INFRINGEMENT-GRINDING MILLS. Letters patent No. 188,783, issued March 7, 1877, to John S. Detwiler, for an improvement in grinding mills, claims the "combination of a pair of stones set to grind coarse, with a second pair of stones, of larger