DELAWARE METAL REFINERY v. WOODFALL et al.

(Circuit Court, E. D. Pennsylvania. May 23, 1893.)

No. 20.

1. PATENTS FOR INVENTIONS—VALIDITY—PROCESS OF REFINING ZINC.
Letters patent No. 448,802, issued March 24, 1891, to Joseph W. Richards, cover the process of refining zinc by "diffusing metallic aluminium throughout the bath of metallic zinc, permitting said composite bath to stand in a melted condition, for the subsidence of the impurities, and finally removing the stratum of refined zinc." *Held*, that there was nothing in the prior state of the art to invalidate the patent.

2. SAME—INFRINGEMENT.
In a suit for infringement of this patent it appeared that defendants, after melting the zinc, cleaned it in the ordinary manner, by skimming impurities from the top, and raking out what fell to the bottom, then added a small quantity of aluminium, stirred the mixture thoroughly, and then dipped from the caldron, without waiting for the subsidence of impurities, and without leaving any residue in the vessel. It appeared, however, that about an hour was used in thus emptying the caldron, and that the mixture was stirred two or three times during that period. *Held* that, as the refining in such case takes place very rapidly, defendants secured the benefits of the patent in respect to nearly all of the zinc dipped out, and that their process constituted an infringement, notwithstanding differences.

In Equity. Suit by the Delaware Metal Refinery against Woodfall Bros. for infringement of a patent. Decree for complainant.

Jos. C. Fraley, for complainant.
Thomas D. Moulds, for respondents.

DALLAS, Circuit Judge. This is a suit brought for the infringement of letters patent No. 448,802, dated March 24, 1891, and issued to Joseph William Richards, who assigned to the complainant. The patent was granted for a process of refining zinc, and contains but one claim, which reads as follows:

"The hereinbefore described process of refining zinc, which consists in diffusing metallic aluminium throughout a bath of melted zinc, permitting said composite bath to stand in a melted condition, for the subsidence of the impurities, and finally removing the stratum of refined zinc, substantially as set forth."

The defenses relied upon by the defendants are: (1) Noninfringement; (2) that the letters patent are invalid because, in view of the prior art, they do not disclose any patentable invention.

There is no occasion for construction of this claim. It is plainly for a process for refining zinc, for the practice of which it is requisite (1) that metallic aluminium shall be diffused throughout a bath of melted zinc; and (2) that this composite bath shall be permitted to stand in a melted condition, for the subsidence of the impurities, and the stratum of refined zinc be removed. The defendants admit that the first of these features is comprised in the process employed by them, but they deny that they either permit the bath to stand for subsidence of impurities, or that they remove refined zinc. They refer to a communication which was addressed by the

solicitor of the patentee to the commissioner of patents, as so defining the discovery for which the patent was asked as to make both of these last-mentioned steps in the process essential elements thereof. This communication however, does not, in fact or in law, qualify the claim. The process claimed was solely for refining zinc, and not for forming an alloy; and by its use an alloy is not, in any practical sense, even incidentally produced. The letter to the commissioner was written for the purpose of enforcing this distinction, as the alloy of zinc and aluminium was, admittedly, old. Nothing was said of the invention which the claim does not plainly import; and the true and only question upon this branch of the case is whether the denial of the defendants that they permit the bath to stand for the subsidence of impurities, and remove therefrom the stratum of refined zinc, is or is not refuted by the proofs. They allege in the brief submitted on their behalf that they use aluminium only in the manner now to be stated, and, in connection with that statement, I propose to consider the case in some detail. They say:

"(1) When treating scrap zinc, the metal is melted down in a pot or caldron in the usual way. It is then cleaned, in the ordinary manner, from all the impurities that can be gotten out of it by means of skimming off the top, and raking out what falls to the bottom, su h as pieces of iron, etc. After the metal has thus been treated a small quantity of aluminium is added, and the mixture stirred up so as to alloy the aluminium thoroughly with the zinc. After being thus thoroughly mixed, the whole of the metal in the pot or caldron is dipped therefrom, leaving no residue in the vessel. The two metals are prevented from separating by frequent stirrings, and as a result the whole mass dipped from the pot is homogeneous. Any impurities that have not been removed by the old and well-known process still remain in the metal, and are poured out into the mold along with the good material."

The preliminary cleaning by the old and unsatisfactory mechanical mode is of no consequence if thereafter the patented method be pursued; and the addition of a small quantity of aluminium to the bath, and the attainment of its thorough infusion by stirring the mixture, is obviously incident to the process of the complainants. It is not the fact that—as is intimated, rather than asserted—the defendants form a substantial or commercial alloy, or that it is their object to do so. One of the defendants has himself testified that their product is sold in the market simply as zinc. It is true that the defendants dip the whole of the metal from the pot or caldron, and leave no residue in the vessel; but it is not the fact that this is done only while the two metals are thoroughly mixed, either by the first stirring, or by any subsequent stirrings, so that, as a result, the whole mass dipped from the pot is homogeneous. I am not entirely satisfied that the defendants always begin to remove the metal from the caldron so promptly upon the infusion of the aluminium as to at all anticipate its refining influence. But, conceding to the defendants the benefit of any doubt upon this point, the fact remains that at least an hour is required to empty a caldron, and, while a few of the slabs first made would, in consequence of the metal composing them having been too immediately dipped out, contain some impurities, yet, as purification takes place

very rapidly, the remainder, and much the larger portion, of the zinc would be refined. As to that portion there would be ample time for "permitting said composite bath to stand in a melted condition, for the subsidence of impurities," and the allegation that subsidence is prevented by subsequent frequent stirrings has been disproved. During the period of at least one hour, which is occupied in emptying a pot, these additional stirrings do not occur more frequently than (as one of the defendants has testified) "two or three times," whereas, to prevent the settling of the impurities, it would be necessary to agitate the mass almost continuously. Therefore, with respect to the later stirrings, as well as to the first one, the refinement of the greater part of the metal takes place after the disturbance caused by the stirring has ceased, and while the bath does "stand" sufficiently long to permit the subsidence of impurities. The defendants do, as I have said, remove the whole of the metal from the pot, and leave no residue, and in this consists the most striking difference between their procedure and that of the complainant; but upon investigation it becomes manifest that, by this variance from the best manner of practicing the patented invention, they do not wholly avoid its use. The claim of the patent in suit does not state that the dross is to be removed from the caldron after each operation, and before beginning another in the same vessel, but it was not necessary to mention it. It would, of course, be understood that this should be done. Therefore, in the mere fact that no residue is left by the defendants there is no difference between their practice and the patented process; and as it has been shown that the defendants do not distribute the impurities so that "the whole mass dipped from the pot is homogeneous," but incorporate them in only some of their slabs, it again appears that many, and the greater number, of them are composed wholly of refined zinc. It makes no difference that the defendants, who thus refine much of their zinc, also, instead of entirely rejecting the impurities, combine them with other of their zinc, and of that combination compose some slabs of inferior quality.

The contention of defendants with regard to their treatment of "scrap zinc" has thus far been the subject of consideration. Their treatment of "zinc dross" they assert to be as follows:

"When the defendants treat zinc dross, this material is manipulated in the manner described in the patent granted to Anthony Pierce, Jr., September 6, 1864, (No. 44,112,) and poured out into slabs. If any of these slabs, after pouring, show a blue cast, or do not have a bright appearance, those particular slabs are remelted, and a small quantity of aluminium added thereto, for the purpose of brightening the surface. After the aluminium is mixed with the zinc the whole mass thus treated is dipped out of the pot, and poured into molds, being frequently stirred during the time of pouring to prevent any separation, and to make the whole mass of metal as near alike as possible."

The Anthony Pierce patent does not relate to the use of aluminium. If the defendants confined themselves to the manipulation described in that patent, this complainant would have no ground

for objection; but, when that process is found not to be satisfactory, resort is had to the aluminium treatment, which is conducted in the same manner as when operating with scrap zinc. Therefore, nothing need be added with especial reference to this part of the defense. I have, upon the whole case, arrived at the conclusion that the method used by the defendants is substantially the same as that described and claimed in the patent in suit, and that they thereby accomplish a result which is substantially the same as that attained by the patented process, and that, therefore, infringement has been established.

The averment that this patent is invalid because, in view of the prior state of the art, it does not disclose any patentable invention, is absolutely without support. The patent granted to Anthony Pierce, Jr., upon September 6, 1864, is for treating impure zinc, but in a manner wholly different from that claimed by, and secured to, Richards, the grantor of the complainant; and the argument based upon the assumption that the product of the Richards process is but the old and well-known alloy of zinc and aluminium is fallacious, because, under the evidence, that assumption is clearly inadmissible.

A decree in favor of the plaintiff, for injunction and account, in the usual form, may be prepared and submitted.

GRISWOLD MANUF'G CO. v. HARKER et al.

(Circuit Court, D. Minnesota, Fourth Division. June 5, 1893.)

PATENTS FOR INVENTIONS—INFRINGEMENT—WAFFLE IRONS.

The claims of letters patent No. 229,280, granted June 29, 1880, to Selden and Griswold, for an improvement in waffle irons, were as follows: "(1) In a waffle iron, the hinge upon which the pan opens provided with one of the journals or pivots on which the pan is rotated; (2) the journals or pivots on which the pan rotates, formed upon or connected, one with the hinge upon which the pan opens, and the other on the handle for rotating said pan." *Held*, that this is not infringed by letters patent No. 277,422, issued May 8, 1883, to Harker and Wilkins, in which one of the journals upon which the pan rotates is formed by elongated ears or lugs upon each section of the pan, through which a pin passes to hinge them together, and the divided handle on the side opposite forms the other journal upon which the pan rotates.

In Equity. Suit by the Griswold Manufacturing Company against John B. Harker & Co. for the infringement of a patent. Bill dismissed.

Barr & Catlin and J. C. Sturgeon, for complainant.
Paul & Hawley, for defendants.

NELSON, District Judge. This is a suit brought by the complainant for an accounting and injunction by reason of an alleged infringement of letters patent No. 229,280, granted to Selden and Griswold, June 29, 1880, for improvements in waffle irons. It is charged that the defendants infringe the first and second claims