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We conclude that in all cases in which the importer intends to rely upon the similitude clause for the purpose of identifying his merchandise with some enumerated article of the tariff schedules, and means to place his objection to the action of the collector upon the ground that the collector has not given due effect to that provision, he should state the fact in his protest, and, if he fails to do so, his objection is not stated distinctly and specifically, within the meaning of the statute. It follows that the ruling in the court below was correct, and that the judgment should be affirmed.

DIAMOND MATCH CO. v. HANOVER MATCH CO. et al.

(Circuit Court, E. D. Pennsylvania. January 15, 1897.)

No. 33.

1. PATENTS-COMBINATIONS-MATCH-MAKING MACHINE. The Sisum patent, No. 281,408, for a "machine for bundling match sticks," shows a patentable combination as to claim 1; and, as to claim 10, is to be as broadly construed as its terms will fairly admit, and infringement is to be tested by a liberal application of the criterion of substantial equivalency. These claims, accordingly, held valid and infringed.

2. SAME.

The Donnelly patent, No. 292,474, for a "match-making machine," held to show patentable novelty and invention as to claim 2, and also held infringed.

This was a suit in equity by the Diamond Match Company against the Hanover Match Company and others for alleged infringement of two patents relating to machines for bundling match splints.

Lysander Hill, Prindle & Russell, and B. H. Lowry, for complainant.

Geo. Harding and Geo. J. Harding, for respondents.

DALLAS, Circuit Judge. This is a suit upon two patents, both of which relate to machines for bundling match splints preparatory to dipping them into an ignitable compound.

1. Patent No. 281,408, dated July 17, 1883, was issued to William H. H. Sissum for "machine for bundling match sticks." The first and tenth claims are involved. The first is as follows:

(1) The combination, with a hopper having its front or back, or both, provided with a pivoted lower section or sections, and a roller arranged therein for carrying the match sticks from the hopper, of means for imparting a positive and constant vibrating or swinging motion to said section or sections in a direction transverse to the length of said roller, substantially as specified.

It is contended that this claim is void, but the argument in support of that contention, though presented with much ability, has failed to persuade me that the presumption in favor of the validity of the claim has been rebutted. It is insisted that each of the elements were old; but, if this were conceded, yet, as for a combination, this claim would still be good. I cannot agree that coaction of the several parts is not shown, or that their co-operation to produce a unitary result was not contemplated. The ultimate end in view was the proper delivery of the splints to a device employed at a succeeding

stage of the general process. To facilitate this, their right delivery to, and reception by, the roller forming the bottom of the hopper was of importance, and to this immediate purpose the hopper and the roller were both made to lend their aid. It is said in the respondents' brief that the function of the pivoted section of the hopper is to deliver the match sticks to the roller, and that that of the roller is to deliver them from the hopper; but the fact is that their proper delivery is not a distinctively twofold operation, but is really secured, as a whole, by the combined action of both instrumentalities, which, by reason of their conjoint operation, both contribute to the achievement of the desired object. This is clearly shown and explained by the complainant's expert, from whose testimony I adopt the following: "The combination expressed in claim 1 of the Sisum patent, being for elements combined and co-operating with each other 'substantially as specified' in the specification and drawings, includes not only hopper, having its front or back or both provided with a pivoted lower section or sections,' and 'means for imparting a positive and constant vibrating or swinging motion to said sections' of the hopper, but it also includes, as 'a roller arranged' with respect to the hopper 'for carrying the match sticks from the hopper,' such a roller as is shown in the patent, to wit, one which is provided with notches or grooves across its periphery at intervals, and each adapted to receive and carry a single match stick therein. The arrangement referred to in the claim is also substantially the arrangement shown in the drawings in which the periphery of the notched roller forms a part of the bottom of the hopper, and in which arrangement the match sticks contained in the hopper tend by their gravity to enter the notches in said roller. The arrangement of the roller with respect to the hopper, referred to in the claim, further includes—First, the close proximation of the hopper to the roller face, whereby the match sticks have no escape from the hopper except by way of the notches; and, second, the parallelism of the notches in the periphery of the roller with the vibratory lower section or sections of the hopper. In this particular relation of the roller notches with the vibratory side or sides of the hopper there is a special coaction or co-operation of such vibratory side or sides of the hopper with the walls of the notches in the roller, the walls of said notches acting as shoulders in opposition to the approaching side of the hopper, in that one of its movements, so that, by the resisting action of the notched shoulders and the pushing action of the hopper side or sides parallel with said notches, the match sticks thus acted upon from both sides are more effectively distributed in the notches ready to be carried out of the hopper for spaced distribution in the bundle or coil which it is the ultimate purpose of the machine to produce. This combination is nowhere to be found in the prior art of match bundling, or in any analogous art, or in any of the machines belonging to more or less remote arts, and represented in defendants' patent and publication exhibits in this case." The claim is, in terms and in fact, for a combination. The pivoted and vibrating section of the hopper is not, in itself, the entire provision for the proper delivery of the match sticks. That element of

the combination is, it is true, first described in the specification, and it is there said that the swinging section "facilitates the proper delivery"; but delivery and reception constitute a single continuous act, and in its reception of the splints the notched roller, "arranged therein" as shown in the specification and drawings, also plays a part in accomplishing the purposed end; and its function is not, in this regard, a distinct one, but is performed conjointly with that of the peculiar hopper, and it is by their combination—not solely by either—that the single object of the composite organism is effected.

The tenth claim of the Sisum patent is as follows:

(10) In a machine for bunching match sticks, the combination, with a hopper in which the match sticks are placed, of a roller having a notched periphery rotating in the hopper, and fingers normally extending into circumferential grooves in the roller, and adapted to be raised to preclude the entrance of match sticks into the notches of the roller, substantially as specified.

The defense as to this claim is noninfringement; and, as bearing upon that issue, two questions are primarily presented, namely, as to the true date of actual invention, and as to the scope which should be accorded to the claim, in view of the state of the art at that date. The uncontradicted evidence respecting the first of these questions is conclusive. I find that the invention of Sisum was made not later than in the year 1875. Three patents of still earlier date are relied upon, not as anticipatory, but as requiring the limitation of this claim to the specific mechanism described. It is not necessary to discuss these patents in detail. They all relate to different arts, none of which is, in any reasonable sense, analogous to that of the manufacture of matches. One is for a brush-making machine, another is for an improvement in cotton gins, and the other relates to grain bundling. They disclose nothing which could have been successfully applied to the coiling of match splints, or which it is at all probable would ever have suggested to any one a device designed "to preclude the entrance of match sticks into the notches of the roller." Taylor v. Spindle Co., 22 C. C. A. 203, 75 Fed. 301 et seq. Therefore this claim is to be as broadly construed as its terms will fairly admit of. and infringement is to be tested, not solely with reference to absolute identity of parts, but by a liberal application of the criterion of substantial equivalency of the combinations. This view of the matter is decisive: for, notwithstanding the structural differences between the arrangement of the complainant and that of the defendants, they are, so far as is material, the same. The variations may be sufficiently The notched roller of the patent in suit is stated in few words. changed by the defendants into what, in the Moul patent,-which, admittedly, represents the defendants' machine,-is several times designated as a "two-part feed roller," which is also notched; and, for the Sisum "fingers normally extending into circumferential grooves in the roller," there is substituted what is called "a plate," which is placed in the space between the two parts of the roller, and adapted, like the Sisum "fingers," to be operated to prevent, as and when required, the sticks from entering the notches of the roller. That the two contrivances accomplish precisely the same beneficial result is unquestionable, and that they do so in substantially the same way

is almost equally obvious. It is insisted that the respondents' mode of construction is better and less expensive than that of the complainant, and this may be true, but it is still none the less true that the two machines themselves are, in principle, identical. In the open space between the "two parts" of the defendants' roller we have but the "grooves" of Sisum, reduced in number and enlarged in dimensions; and in the "plate" of the defendants we have the two "fingers" of Sisum, so webbed or consolidated as to comprise them both in an apparently single and broader one. To hold that infringement may be avoided by such deviations as these would be to measure the plaintiff's right by a rule more restrictive than any which, in my opinion, is appropriate to this case.

The defense of abandonment cannot be sustained. It was not pleaded, and it has not been proved. It is rested solely on the testimony of Sisum himself; but he has positively denied that actual abandonment was ever intended, and his explanation of the delay which occurred in making his application is neither incredible nor inconsistent with the continuing purpose, which, under oath, he asserts he always entertained of securing a patent. There is no evidence whatever upon which a finding of constructive abandonment could be based.

2. Patent No. 292,474, dated January 29, 1884, was issued to Charles J. Donnelly and John M. Donnelly for "match-making machine." The only claim of this patent upon which a decree is asked is as follows:

(2) In a match-making machine, the combination of a hopper for the splints, a pocketed drum adapted to revolve partially within the said hopper and to remove the splints separately or one by one from the same, and tapes to remove the splints from the said pocketed drum, and at the same time clamp them so that they may be wound into a coil, substantially as specified.

The gist of this claim lies in the combination of the tapes directly with "the pocketed drum adapted to revolve partially within the said hopper," and the omission from the mechanism of the second or supplementary notched drum and of the transferring devices connected therewith, which had previously been deemed essential. The position taken by the respondents is that this arrangement lacked invention and novelty, in view of machines shown and described in certain prior patents; and the complainant's expert, when first examined, undoubtedly supported this view, but subsequently, upon more thorough investigation and consideration, he reached a different conclusion, and testified that, in his more deliberate and better founded opinion, the combination claimed exhibits both novelty and invention. This departure in his testimony has been, not unwarrantably, animadverted upon by counsel for the defendants; but I would not be justified in discrediting the witness merely because of his admission that he had, in the first instance, fallen into error, and, as I entirely concur in the opinion which he finally expressed, that opinion must, of course, prevail. The simplification of the mechanism, and the reduction in the number of its parts, provided for by the invention of the claim in suit, constituted an improvement in match-making machinery of much utility, and none of the patents set up give the slight-78 F.--40

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est intimation that any one had ever before devised any means by which this desirable change could be successfully made. The only one that shows anything of the sort is a certain French patent, which, though issued as long ago as the year 1857, has itself never been reduced to an operative machine, nor led to the production of any device which is operative. Indeed, this patent presents a quite persuasive argument in support of the Donnelly patent; for it is pregnant of the fact that although, in 1857, the want now met by the Donnelly invention had been plainly perceived, it was so difficult to meet it that the effort then made to do so turned out to be abortive, and, until the Donnellys took the field, was not renewed. Upon the first and tenth claims of the Sisum patent, and the second claim of the Donnelly patent, decree for complainant.

DUFF MANUF'G CO. v. FORGIE.

(Circuit Court, W. D. Pennsylvania. February 1, 1897.)

PATENTS-INTERPRETATION OF CLAIMS-INFRINGEMENT-JACKING APPARATUS. The Barrett patent, No. 455,993, for improvements in "lifting jacks," which are also adapted to produce horizontal motion, the said improvement being based on the principle of a yielding, as distinguished from a rigid, tripping plate, construed, and held infringed as to claims 1 and 6, by a jacking apparatus designed to produce horizontal circular motion for the purpose of unscrewing oil-well tools, which apparatus, though different in form, in its principle, design, and functional purposes embodies the substance of the invention.

This was a suit in equity by the Duff Manufacturing Company against William Forgie for alleged infringement of a patent. The cause was heard on complainant's motion for a preliminary injunction.

Kay & Totten, for complainant. W. L. Pierce, for defendant.

BUFFINGTON, District Judge. This motion for a preliminary injunction is based on two patents, viz. No. 455,993, issued July 14, 1891, and No. 527,102, issued October 9, 1894, to Josiah Barrett, assignor to the complainant company. As respondent's answer consents to a decree as to the latter, we confine our attention to the former, patent. It was before this court in Manufacturing Co. v. Forgie, 57 Fed. 748, where Mr. Forgie attacked its validity on the ground of prior invention by himself. On the prima facies of the patent, priority was adjudged to Barrett, and subsequently thereto an interference proceeding, which was then pending be tween them, was decided by the patent office in his favor also. that case it was sought to restrict the claims to a lifting jack. It was, however, held that, though the drawings illustrated "lifting jacks" only, the explanation of that term in the specifications, viz. "by such terms it is, of course, to be understood that the invention includes any device embodying its principle, whether the pow-