

the Brooks patent. The alternative spring mechanism and stop mentioned in the patent, and exhibited in Fig. 4, in construction and operation are identical with the spring and stop of the Wagner patent, No. 326,178, already referred to. In the Williams machine this Wagner mechanism is employed but in connection with a positive and unyielding stop, whereby the platen is automatically caught on reaching its normal position, and is there firmly held until it is unlocked by the manipulation of the tilting lever. This locking device is indispensable to rapid and accurate work. This mechanism, as a whole, in operation and function is radically different from the yielding stop mechanism of the patent in suit. We are not here dealing with a primary invention in respect to which a greater latitude of construction might be allowable. At the best, the improvements in question are of a subordinate character, and the claims must be limited, under the authorities, to the specific devices shown. Upon the whole case, I am of opinion that infringement does not appear. Let a decree be drawn dismissing the bill of complaint, with costs.

NELSON et al. v. A. D. FARMER & SON TYPE-FOUNDING CO. et al.

(Circuit Court of Appeals, Second Circuit. May 25, 1899.)

No. 160.

1. PATENTS—COMBINATIONS.

A combination of old elements is patentable when, by a novel arrangement thereof, these devices, by their joint action, produce a useful result, which has never before been successfully accomplished.

2. SAME—MOLDS FOR CASTING TYPE.

The Hochstadt, Wenzel, and Heinebach patents, Nos. 352,869 and 354,060, for improvements in molds for casting type, were not anticipated by the Mason patent, No. 187,880, for a type-casting mold. In the former patent claims 1, 3, and 4 are valid, but claim 6 is void for want of invention; in the latter, claims 1, 2, 3, and 4 are valid.

3. SAME.

The Rettig patent, No. 354,935, for improvements in molds for casting type, construed, and held not anticipated, valid, and infringed as to claims 6 and 7, and void as to claims 4 and 5. 91 Fed. 418, modified.

Appeal from the Circuit Court of the United States for the Southern District of New York.

The complainants, as trustees for the American Type Founders Company, and assignees of the letters patent hereinafter mentioned, brought a bill in equity in the circuit court for the Southern district of New York against the defendant, a corporation, and some of its officers, which was based upon their infringement of three letters patent, viz. No. 352,869, dated November 16, 1886, and No. 354,060, dated November 7, 1886, each of them having been granted to Carl Hochstadt, Philipp Wenzel, and Herman Heinebach, and No. 354,935, dated December 28, 1886, granted to George Rettig, each patent being for improvements in molds for casting type. The three patents are known in the case as patents A, B, and C, these letters being applied to them in accordance with their numerical order. The circuit court found that the defendants had infringed claims 1, 3, 4, and 6 of patent A, claims 1, 2, 3, and 4 of patent B, and claims 4, 5, 6, and 7, of patent C, and decreed accordingly for an injunction and an accounting. From that decree the present appeal was taken. The several claims are as follows:

No. 352,869: "1. In a type-casting machine, the combination with the lower stationary member of the mold, having a detaining device in the jet-casting portion, of the upper mold-section, provided with similar detaining devices in the type-casting portion, substantially as described." "(3) In a type-casting machine, the combination with the type-mold, the upper member of which is provided with a type-detainer and the lower member of which is provided with a jet-retainer, of a jet-discharging arm connected with a moving part of the machine, and moving in close proximity with the jet end of the mold, substantially as described. (4) In combination, substantially as set forth, the mold having in one member a type-detainer, and in the other or companion member a jet-detainer, and a jet-ejecting arm moving past the jet end of the mold while the mold is open, whereby the type and jet are automatically broken apart when the mold opens, and the jet ejected therefrom." "(6) In type-casting machines, the combination of the mold and jet-discharging arm attached to and receiving motion from a moving part of said machine, substantially as described."

No. 354,060: "(1) In a type-casting mold, the combination of the upper or vibrating member having a type-retaining device, and the lower or stationary member having a recess or recesses to form detents upon the jets, substantially as described. (2) In a type-casting machine, the combination with a fixed mold-section provided with recesses of an arm actuated by a moving part of the machine, and moving close to the jet end of the mold, substantially as described. (3) In combination, substantially as set forth, the mold, having in one member a type-detainer, and in the other or companion member a jet-detainer, and a wiper or jet-discharging arm actuated by a moving part of the machine independently of the mold, and moved past the jet end of the jet-detainer member as the mold opens. (4) In a type-casting machine, the combination with the lower or stationary member of the mold, provided with recess or recesses to form detents to detain the jet therein, of an arm actuated by a moving part of the machine, and located and adapted to move close to and parallel with the jet end of the mold to engage the jet and release the detents from the mold, substantially as described."

No. 354,935: "(4) In a type-casting machine, in combination with the fixed member of the mold and the arm which actuates the vibrating member, the arm, D, actuated by means of suitable connection with the arm which actuates the vibrating member of the mold, but independently of said member, and located and adapted to move close and parallel to the rear face of the fixed member of the mold while the same is open, substantially as set forth. (5) In combination with the jet-retaining member of the mold, an arm pivoted on the mold-carrying frame and actuated during the opening of the mold past the jet end of said jet-retaining member, substantially as and for the purpose set forth. (6) In a type-casting machine, the fixed member of the mold, A, having recesses to form detents on the jet, the arm, D, the link, D', and the arm, E, combined and co-operating as and for the purpose set forth. (7) In a type-casting machine, the mold, having in its vibrating member detents to detain the type, and in its fixed member devices to detain the jet, in combination with the arm E, the link D', and the lever D, substantially as and for the purpose set forth."

Jerome Carty, for appellants.

Charles S. Burton, for appellees.

Before WALLACE, LACOMBE, and SHIPMAN, Circuit Judges.

SHIPMAN, Circuit Judge (after stating the facts as above). All American and many European type-casting machines are based upon the machine invented by David Bruce, of New York, in 1838. A very general description of the Bruce machine is given in Knight's Mechanical Dictionary, as follows:

"The metal is kept fluid by a gas jet beneath, and is projected into the mold by a pump, the spout of which is in front of the metal pot. Each revolution of the crank brings the mold up to the spout, where it receives a charge of metal. It flies back with it, the top of the mold opens, and the type falls out. * * *

After casting, the jet or surplus metal, at the foot of the type, and which filled the ingate of the mold, is broken off."

This description does not tell how the type is removed or is delivered from the mold, and, as the method of removal is an important part of the improved machines of the patentees, it is desirable to understand the method in the machines of the Bruce class, which the appellees described as follows:

"The casting was carried in the upper member of the mold by means of a pin or pins set through one wall of that member, and protruding almost imperceptibly into the type-cavity of the mold, so that the metal flows around the protruding end of such pin; and the pin thus obtains a grasp on the casting sufficient to lift it out of the lower member when the mold opens, such lower member having no especial provision for causing the adhesion of the casting to it." "The casting thus formed and lifted by the upper member out of the lower member by the opening movement of the upper member has a projection at each end. At the head end, the metal which flowed into the recess of the matrix projects a distance equal to the depth of the matrix cavity, and the 'sprue,' whose length is always at least the thickness of the nipple-plate, projects from the jet end. These two projections are taken advantage of to detach the type from the upper member of the mold after the mold has opened, or in the latter part of the opening movement. A finger, which for some unknown reason is called the 'stool,' rigid with the lower or fixed member of the mold, overhangs the projecting face of the casting at the head end; and an arm or finger, called the 'back-discharge arm,' similarly overhangs the 'sprue' at the jet end, and, as the pivoted member of the mold rises, carrying the casting with it, the projections at the ends respectively of the casting encounter the 'stool' and 'back-discharge arm' respectively, and the type is thereby knocked loose from the upper member, and falls upon the lower member, and both being inclined at an angle of about 45°, the casting slides from the surface of the lower member into a chute, by which it is conducted to a receptacle."

Each casting, as thus made, consisted of the type body and the "jet" in one piece, and the jet was subsequently taken off by hand, an operation which was expensive, for one boy or one girl was frequently required at each machine; and, when carelessly performed, a portion of the type was damaged. It therefore was desirable to have the breaking done automatically, and this was the object of the inventions now under consideration, which were rapidly adopted, and which soon had commercial success. The invention described in patent A was to pin or detain the casting not only in the upper member by the pin which has been described, but also to compel the casting in the lower member to be likewise held or detained by pins or similar detaining devices protruding into the casting. When the mold was opened, and the type and jet were detained, and the upper member of the mold rose, a strain came upon the two parts of the casting, which snapped asunder at the line called the "break," at the junction of the jet with the lower end of the type proper. As an L-shaped discharge finger, rigid with the upper member of the mold, and carried by its movement, moved past the lower member of the mold, it came in contact with the sprue, and dislodged the jet, which rolled down an incline. In the invention described in patent B the patentees used, instead of pins in the lower mold, notches upon the face of the lower half of the mold, which in the process of casting became filled with the molten metal, formed wedge-like projections on the under side of the jet, and retained it in its place until dislodged by the moving arm or finger, which was actuated by a moving part of the machine, instead of by the upper

member of the mold. The patentee of patent C used holes or detent points in the lower mold, and an arm which rested upon or was supported by the apron, or rocking frame, which carries the mold to and from the melting pot, and was actuated by the mold-opening arm.

The point upon which the case turns is whether the automatic breaking device of the three patents in suit, and particularly that part of the device described in claim 1 of patents A and B, was anticipated by the invention described in the patent to Thomas Mason, No. 187,880, dated February 27, 1877, which was also for a type-casting mold in which the jet was automatically broken from the type. The specification is very short, and is as follows:

In the "breaks" between which metal is injected into the mold "angular or V-shaped recesses, a, are formed, which, when the mold is closed together, are oppositely arranged in respect to each other, so that, when metal is injected into the mold, angular shoulders, b, corresponding in form to the recesses, a, are formed on each side of the break, c, of the type, so that, as the mold is opened with the type or casting in it, the contrary action of the oppositely arranged inclined sides of the recesses, a, produces sufficient strain to sever the break from the type, which is retained by the shoulders of the mold."

It will be observed that the patent described no additional means by which the broken jet was ejected from the mold. The Mason invention was carefully tried by type makers for the purpose of introduction into their foundries, and, while it made type which was used and sold, it was an unsuccessful device, which fell into disuse, and ceased to have a position in the type-making art. It is urged, however, that it possessed all the elements of claim 1 of patent A, that it had a type-detaining device and jet-retaining device in the respective parts of the mold, and that the different, and perhaps improved, modifications in the patents in suit were mere mechanical changes, not possessing the element of invention. To ascertain the accuracy of the idea that the principle of the two devices was the same, it is important to know why the one failed and the other succeeded. In the Mason device the jet was not, as a rule, held down or detained in the mold, but was pulled apart from the body of the type by a lengthwise pull, was raised up from the mold, and was ejected. The ejection was not uniform in respect either to the time of the movement or to the place to which the broken part was ejected. On the other hand, in the device of the patent in suit each part of the type is positively detained in the mold, and, thus detained, one part is severed from the other by the upward movement of the moving part of the mold, and the jet is then ejected by the moving arm; and while it is true that sometimes the jet is held in the stationary part of the Mason mold, such holding is not an intended part of the device, whereas detention is the intended result of the detaining devices, which, in connection with the ejecting arm, are the distinctive features of the patent in suit. Upon this point the conclusion of the examiner in the patent office, to whom was referred the question of the importance of the public use of the Mason device, upon question of the patentability of patents A and B, is noteworthy. He said:

"These [the Mason] shoulders are reversely inclined, so that, as the mold opens, these inclines act on inclined lugs cast on the end of the jet, and force the jet outward from the body of the type. This outward movement of the jet

lifts it from the lower member of the mold just as much as the lower member of the mold is lifted from the jet. When the inclines on the shoulders have passed the lugs, the jet is entirely free from both members of the mold, and drops therefrom; that is to say, the jet is not 'detained' in either the lower or upper member of the mold in the sense in which that term is used in the matter in interference. This is the operation of the Mason mold, as would appear from its drawing, and as described in the specification of his patent by the inventor himself."

It seems clear that the oppositely disposed angular shoulders of the Mason patent have a different mode of operation from that of the detaining devices of claim 1 of the two important patents in this case. The function of the shoulders is, after the jet is broken, to force it outward, while the function of the detaining devices is to detain the jet, and therefore there is a necessity in the patents in suit for a discharging arm which shall eject the broken jet,—a necessity which apparently did not exist in the Mason device. The defendants contend that the combination of the detaining device with the discharging arm contains nothing patentable, because the change from the rigid arm upon the stationary part of the mold of the Bruce machine to a jet-discharger connected with a movable part of the machine, and moving in close proximity with the stationary part of the mold, did not constitute invention. It is true that the combination was one of old elements, but it was a novel arrangement of these devices, so that by their joint action a result was attained which had not before been successfully accomplished, viz. an automatic breakage of the two parts of the type, and the delivery of the separated parts into separate receptacles. The patentable character of this combination was recognized in the patent office as follows:

"Both Rettig and Hochstadt, Wenzel and Heinebach, have so modified the construction of the Bruce mold that it should do what it could not do before; i. e. retain the jet in the stationary part of the mold while the type is carried up with the movable part thereof. In order to render this change effective in the operation of the machine, it became necessary to combine with the mold an element never before found in any mold, namely, a clearer, or jet-discharger, which should have positive movement with relation to the stationary part of the mold; and in order that the machine might be automatic in its action, it was also necessary that this movable clearer should be connected to and operated by some movable part of the machine. This is regarded as a substantive invention, supplementary to the main invention made in the construction of the modified mold."

No question is made in regard to infringement, and the defendants' testimony, for the purpose of showing a substantial and nonexperimental use at St. Louis or in the city of New York of type-breaking devices like those described in these patents, and other than the Mason device, prior to the invention of the devices in suit, is not of sufficient importance to call for discussion.

The remaining question is in regard to the validity of the separate claims which were named in the decree, and which, so far as they relate to the discharging arm, were unnecessarily redundant. Claim 1 of patent A contains the invention of the detaining device in the lower and jet-casting portion and similar detaining devices in the upper and type-casting portion. Claim 3 is for a combination of the elements of claim 1 and a jet-discharging arm connected with a moving part of

the machine. Claim 4 is for the jet-discharging arm of claim 3, whose function is more particularly described than in claim 3, in combination with a type-detaining device in one member of the mold and a jet-detaining device in the other member. Claim 6 is for a combination of a mold, whose peculiarities are not named, and a jet-discharging arm receiving motion from a moving part of the machine is an unimportant modification of the Bruce mold, and is without invention. Claim 1 of patent B is for that modification of the invention in claim 1 of patent A which consists in a suitable recess or recesses in the lower stationary member of the mold to form detents upon the jet, and claims 2 and 4 are for the same mold and the jet-discharging finger of claims 3 and 4 of patent A. The validity of these claims has been attacked upon the ground that, in view of the Mason patents, the substitution of recesses in the stationary member of the mold for pins possessed no patentable invention. Pins were necessary in the upper or type-casting portion, so that the casting might thoroughly "set," and recesses of a certain kind in the lower part of the mold had been unsuccessfully used in the Mason invention. The argument against the validity of these claims which is derived from the Mason patent is without avail. The peculiarity of claim 3 of patent B is that the jet-discharging arm is actuated by a moving part of the machine, independently of the mold. If it were not for the history of the two inventions of Rettig which is contained in his testimony, the meaning of claims 5 and 4 of patent C would be very obscure. It appears that between the dates of the inventions A and B, Rettig invented, and represented in a drawing, a mold, the jet-casting portion of which was peculiar. It was a movable plate, moved so as to sever the jet before the mold opened, and to retain it, and was, therefore, a jet-retaining member of the mold. When the mold opened, a discharging arm pivoted on the mold-carrying frame dislodged the jet. It will be perceived that this device, as invented, was not a part of patent C, which was for a type-casting machine of the type of patent B; but in the allotment of priorities between the various patentees during the interference in the patent office the other patentees gave Rettig priority as to this discharging arm when used in a mold having a jet-retaining member, and to that end the patentees of patent B made sundry disclaimers, which were intended to permit him to insert in his patent C two general claims which relate to the discharging arm of another, and not described, device. Claim 5 is for the combination with a mold which has a jet-retaining member of a jet-discharging and particularly described arm. Claim 4 is for a combination with a fixed member of a mold and the arm actuating the vibrating member, of a particularly described discharging arm. These claims should have no place in this patent, because the invention to which they refer was in a machine of a very different class from that described in patent C, and their mold is not the mold of the patent. If they are to be considered as general claims in regard to the position of the discharging arm of the type-casting device shown in patent C, they are void, because they contain nothing which claims 3 and 4 of patent B did not substantially state. Claims 6 and 7 are of a very specific and limited character, and can be sustained.

The decree of the circuit court is modified, without costs of this court, and the case is remanded to that court, with directions to modify its decree in accordance with the foregoing opinion with respect to claim 6 of letters patent 352,869 and claims 4 and 5 of letters patent 354,935, and that the complainants recover of the defendants their costs in that court.

S. RAUH & CO. V. GUINZBURG.

(Circuit Court, S. D. New York. May 26, 1899.)

1. PATENTS—INFRINGEMENT—BATHING SHOE AND STOCKING.

A claim covering a combined bathing shoe and stocking with the sole formed of cork coated with rubber cement, and having an outer lining of cotton or other fabric, is not infringed by a similar stocking and shoe, with a sole made of linoleum and an outer lining of canvas.

2. SAME.

The Rauh patent, No. 347,442, for a combined bathing shoe and stocking made of stockinet, and having a sole of cork, to both surfaces of which a coating of rubber cement was applied, construed, in view of the prior state of the art, as limited to the particular construction shown, and held not infringed.

This was a suit in equity by S. Rauh & Co., a corporation, against Edwin A. Guinzburg, for alleged infringement of a patent for a combined bathing shoe and stocking.

Allan D. Kenyon, for complainant.

James A. Hudson, for defendant.

SHIPMAN, Circuit Judge. Letters patent No. 347,442 were issued on August 17, 1886, to Samuel Rauh, for a combined bathing shoe and stocking made of stockinet or Jersey cloth, having a sole constructed of cork, to both surfaces of which a coating of rubber cement was applied. An outer lining of cotton or other fabric is then applied to each surface of the sole, which is held smoothly upon the sole by the cement. The claim is as follows:

"As an improved article of manufacture, a combined shoe and stocking constructed of stockinet, and consisting of the pieces, A, b, b, the sole of the shoe being formed of cork coated with rubber cement, and having an outer lining of suitable fabric, substantially as set forth."

