Case No. 2,675.

CHILD v. BOSTON & F. IBON WORKS.

{Holmes, 303;[1] 6 Pish. Pat. Cas. 606; 5 0. G. 61.}

Circuit Court, D. Massachusetts. Jan. 1, 1874.

PATENTS—"PRINTING—PRESSES"—NEW COMBINATION OP OLD DEVICES.

1. A new combination of old mechanical devices, producing new results, or old results by a new method of operation, is patentable.

2. The patent granted Charles Montague, assignor to Cyril C. Child, Dec. 21, 1869, for an improvement in printing-presses, held valid.

Bill in equity to restrain alleged infringement of letters-patent {No. 98,087} for improvement in printing-presses, granted Charles Montague, assignor to the complainant {Cyril C. Child}, Dec. 21, 1869. The defendant {The Boston and Pairhaven Iron Works} admitted the manufacture and sale of presses containing the patented improvement, but denied that Montague "was the original and first inventor, and denied that it was new. The patented improvement consisted in a combination of mechanical devices, all of which were old; and the principal question in the case was whether the combination claimed was new.

B. F. Thruston and E. P. Brown, for complainant.

T. M. Stetson, for defendant.

SHEPLEY, Circuit Judge. Letters-patent numbered 98,087 were granted Dec. 21, 1869, to Charles Montague, assignor to Cyril C. Child, for improvement in printing-presses. This invention consisted: "First, in the use of a vibrating lever for moving the type-bed, constructed in two parts, one of which is made to slide out and into the other, somewhat like the joints of a telescope, so that the upper end of the lever may be attached directly to the under side of the bed (dispensing with the use of a link), and move in a direct line with the bed, the upper portion of said lever moving out of or into the lower portion, as the distance of the fulcrum of said lever to the point of attachment to the bed is greater or lesser in the different parts of the movement of the bed." The complainant's claim is for the extensible vibrating lever in combination with a reciprocating type-bed, substantially as described. Defendant admits the manufacture and sale of printing-presses containing the extensible vibrating lever in combination with a reciprocating type bed, as described in complainant's patent.

The answer sets up in defence that Montague was not the original and first inventor, and also that the invention set forth in the complainant's patent had been in public use for more than two years before the application of Montague. To sustain the defence of prior knowledge and use, defendant undertakes to prove that one B. F. Leonard was the inventor. Leonard was in the employ of the defendant as its superintendent at the time that the defendant constructed for Montague the first printing-press known by the name of the "extension press," which embodied the invention of the extending vibrating lever

in combination with the reciprocating type-bed. This press was made for Byington & Co., and was used in printing the "Norwalk Gazette," in the summer of 1867; and it is clear from the evidence in the record, that Montague had conceived the idea of substituting the extensible vibrating lever for the lever-and-link connection previously used, as early as 1865, and had made drawings in that year clearly describing the invention, although, from the opposition he encountered from defendant, which was then building his presses under contract with him, he did not embody his invention in a practical working machine until the press was made for Byington & Co., in 1867. Leonard never seems to have claimed to have been the inventor of this improvement until January, 1869, when he represented in his caveat that he had made certain improvements in mechanism for operating the platen of a printing press, and that he was then engaged in making experiments for the purpose of perfecting the same. This caveat he prepared and made oath to, but never filed in the patent office. This was more than three years after Montague had exhibited to two or three persons his drawings representing his improvements, and a year and a half after the defendant had made for Montague the Byington press. The testimony is conclusive that this is only one more of the too frequent instances in which a person engaged as a mechanic or constructor in embodying the inventor's idea in a material form, attempts to prove that he was the first inventor, because he made or aided in making the first machine.

On the issue of novelty, a much more difficult question is presented on a comparison of the patented combination in complainant's printing-press with the mechanism in the machine of Mr. Hervey Waters for rolling bayonets, and a similar machine for rolling file-blanks. This is the machine referred to in the answer, for which letters-patent in Great Britain were sealed June 14, 1864, dated Dec. 23, 1863, No. 3,251, to George Tomlinson Bonsfield, for an invention consisting of an improvement in apparatus for forging and tempering bayonet-blades, files, and other articles, on a communication from abroad of Hervey Waters, of Massachusetts. This contrivance of Mr. Waters had two extensible vibrating levers in combination with a reciprocating sliding-gauge. The reciprocating sliding-gauge moved backwards and forward in right lines upon ways. The swinging levers worked upon a rock-shaft so that the ends of the levers described a curved line; pieces were pivoted to the sliding-gauge

so as to turn on that pivot, their opposite ends fitting upon the ends of the swinging levers after the manner of a sleeve sliding away from and toward the axis of the levers upon the levers proper, and all so connected together as to allow the sliding-gauge to move in right lines, while the levers proper move in curved lines. This form of the file-machine with the extensible levers was used by Mr. Waters, at Ballardvale, as early as January, 1866, and was described in the English patent. Mr. Waters says he does not know who invented the extensible lever; that he put it into his machine, and knows that it was useful, but does not know that it was new with him. He says, "I am inclined to think that it was not, because I have no recollection of any particular effort about it" This combination certainly comes very near anticipating the complainant's invention. The three elements, considered separately and apart from the organization in which they are incorporated, the results of the organization, and the mode of operation in the combination, would seem to be the equivalents for the vibrating levers, the extensible sleeves, and the reciprocating platen or type-bed in complainant's combination. Nevertheless, old elements placed in new and different organizations, producing in such new organizations different results, or the same result by a new and different mode of operation, do not prevent such newly organized mechanism from being patentable. It becomes necessary, therefore, to compare the respective organizations into which these elements were incorporated, and the respective modes of operation, and the results of the operation, in the two machines.

Exhibit I is a model of the machine for rolling file-blanks. In this machine the forward movement of the gauge-bar is effected by means of a spring, and the backward movement by means of a projection on the lower roller, called by the witnesses a segmental die. Waters himself describes how this is effected: "The gauge is carried backward by the die on the bottom roll in its revolution, or by some part of the roll which is connected with the die, and the giuce swings backward the lever, at the same time raising the weight or cramping the spring according as the machine is organized. The gauge is carried forward by the spring which was cramped in the backward movement of the gauge, the spring actuating the lever, and the lever the gauge, or when the machine is organized with a weight in place of a spring, the lever is carried forward by the weight, and the gauge by the lever. But it should be understood that the motion of the lever forward, and consequently the motion of the gauge forward, is controlled by a can upon the lower roller, and altogether in the operation of the machine, the motion of the gauge backward and forward is controlled by the motion of the lower roll, and works in accordance with it."

It is noticeable here that, in the operation of the file-machine, the gauge-bar is nat moved forward or retracted by the extensive vibrating levers in the same manner as the type-bed is in the complainant's press. In the file-machine the gauge is carried back by the die on the bottom roll, and the gauge, ins ead of being moved back by the lever, swings the lever backward, and thereby cramps a spring which, when the gauge-bar is released by

the revolution of the segmental die, actuates the lever, and, through the lever, the gauge in its forward movement This organization—perfectly adapted to its purpose and object of presenting the blanks of metal in a proper position and at a suitable time to the rolls, without reference to regularity or uniformity of movement during its travel, provided the gauge presented the blank at the proper time to the rolls—would be unsuited to the operation of a printing-press, where a regular movement of the type-b, d during its progress is indispensable. Practically, a type-bed during the period of taking the impression, could not be operated by a spring or any equivalent device. In the operation of the file-machine "the motion of the gauge backward and forward is controlled by the motion of the lower roll, and works in accordance with it."

The evidence in the record proves clearly the impracticability of operating a printing-press of the class to which this belongs, by using a device like this, as the diameter of the circle described by its revolution, in order to give sufficient impression movement to the type-bed, would be so great as to involve such an elevation of the type-bed above the floor as would place it beyond the reach of the printer. A crank or its equivalent is a part of the organization of complainant's combination, as will be seen on examination of the specifications; the crank acts upon the levers, and they in turn on the type-Bed, and, as the rectilinear motion of the reciprocating type-bed is communicated from the levers which move in curved lines, the capacity of becoming longer or shorter (that is, the extensibility of the levers) becomes operative, while, if the type-bed could be practically moved in one direction by a revolving tappet, like that in the file-machine, and then in the contrary direction by a spring, this feature of the extensible levers would be dormant or useless in the operation.

Considering, therefore, the differences in the mode of operation and the differences in the results, and the fact that in the complainant's press the combination described is one in which the crank communicates the motion to the vibrating extensible levers, and they in then turn to the type-bed, and that the resultant motion given to the type-bed is one adapted by reason of its regularity and uniformity to the requirements of a printing-press of this class, I am inclined to think that there is sufficient invention to make the complainant's combination patentable.

notwithstanding the use of these elements of it with a different operation and different results in an earlier, though different, organization.

It is also contended, in behalf of defendant, that the substitution of the extensible sleeve to the lever, in place of the link used in complainant's former patent, was a mere equivalent, and therefore that the invention embraced in the first Slaim had been in public use and on sale more than two years prior to his application for a patent. In many organizations of machinery it would be true that the one might be a mere mechanical equivalent of the other, where the same result would be produced by substantially the same operation. But in the application of the extensible lever to the printing-press, a different operation produces a different result from that in case of the link motion. The type-bed driven by the extensible lever has a uniformly accelerated movement during onehalf of its travel, and a uniformly retarded movement during the other half of its travel, while the type-bed driven by the lever and link has an unequally accelerated movement during one-half of its travel, and an unequally retarded movement during the other half; other advantages, not necessary to be enumerated, result from the substitution of the one for the other, which, like the one above mentioned, are, in reference to the object and purpose of the organization, differences of operation, not of a degree, but of kind.

The patent is adjudged to be good and valid, and the decree is for complainant for injunction and account, as prayed for in the bill. Decree accordingly.

{NOTE. For master's report upon accounting, see Case No. 2,674.

{For decision of an action at law for the same infringement, in favor of defendant, see Child v. Boston & F. Iron Works, 19 Fed. 258, and, for a decision disallowing proof of the judgment herein as a claim against the defendant in bankruptcy, see In re Boston & F. Iron Works, 23 Fed. 880.}

[1] {Reported by Jabez S. Holmes, Esq., and here reprinted by permission.}