F. T. THOMPSON.

TYPE PLATE STRAIGHTENING MACHINE.

APPLICATION FILED DEC. 31, 1913.

1,148,131. Patented July 27, 1915.

Fig. 1.

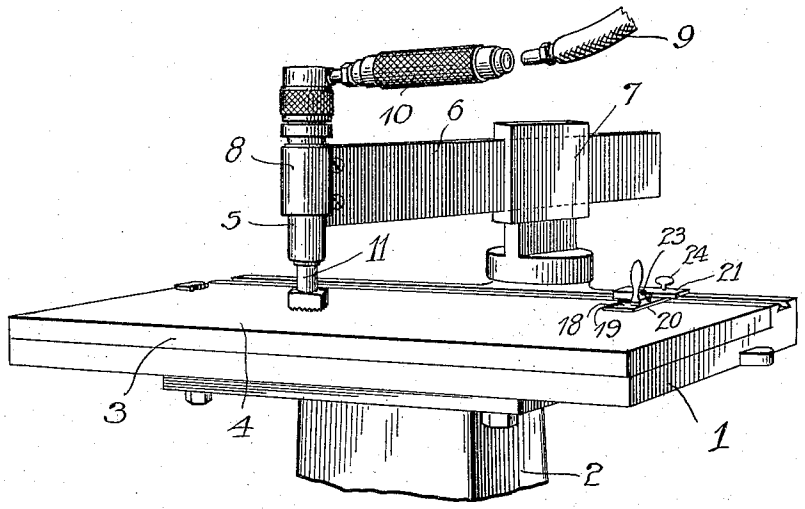


Fig. 2.

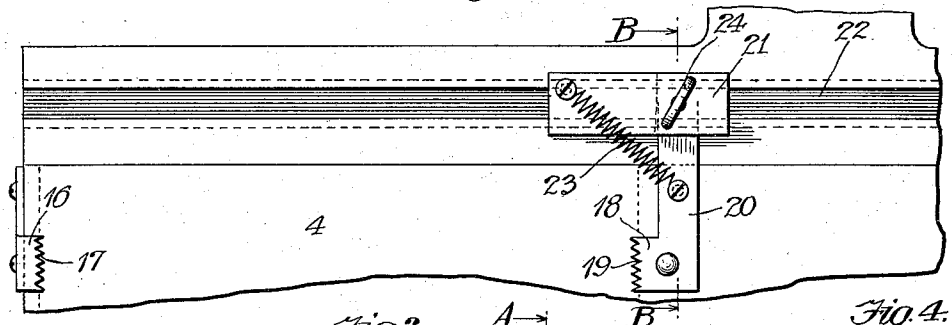


Fig. 3.

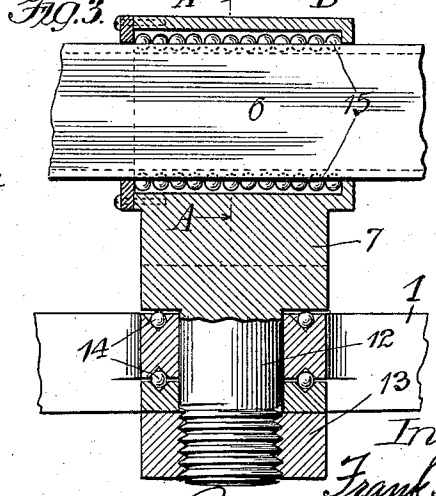


Fig. 4.
(A—A)

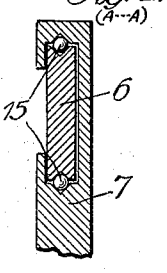
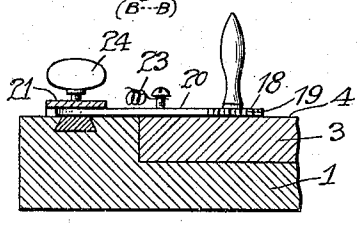


Fig. 5.
(B—B)



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FRANK T. THOMPSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO OSTRANDER SEYMOUR COMPANY, A CORPORATION OF ILLINOIS.

TYPE-PLATE-STRAIGHTENING MACHINE.

1,148,131. Specification of Letters Patent. Patented July 27, 1915.

Application filed December 31, 1913. Serial No. 809,656.

To all whom it may concern:

Be it known that I, FRANK T. THOMPSON, a citizen of the United States of America, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Type-Plate-Straightening Machines, of which the following is a specification.

The main objects of this invention are to provide an improved form of machine for straightening type plates by bringing up the low portions of the plate so as to make the entire printing surface flush; to provide a supporting member for the type plates having improved means thereon for clamping the type plates in position, to provide a mechanically operated hammer for hammering the type plates, and to provide improved means for supporting said hammer so as to permit it to be moved over all parts of the plate.

An illustrative embodiment of this invention is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of an improved type plate straightening machine. Fig. 2 is an enlarged fragmentary plan view of the same, showing the arrangement of the clamping means which secures the type plates on the supporting member. Fig. 3 is an enlarged transverse sectional elevation of the rotatable standard which supports the hammer. Fig. 4 is a sectional detail taken on the line A—A of Fig. 3. Fig. 5 is an enlarged sectional detail taken on the line B—B of Fig. 2.

In the construction shown in the drawings, the device comprises a horizontally disposed supporting member or table 1 herein shown to be supported on a standard 2. A surface plate 3 is supported on the table 1 and has its upper face 4 made perfectly true, level and polished so that the type plates resting thereon may be hammered on their under side to bring the entire printing surface in contact with the plate so as to insure a true printing face for the type plate. A pneumatic hammer 5 is suspended above the supporting member 1 by means of an arm or bar 6 slidably mounted in the standard 7 which is rotatably mounted on a vertically disposed axis at the rear edge of said supporting member. The pneumatic hammer 5 fits into a cylindrical sleeve 8 formed on the end of the arm 6 so that it may be relatively rotated with respect thereto on a vertical axis. The hammer is of the usual construction being connected to a source of compressed air by means of a tube 9 and having the usual rotatable controlling handle 10. A working tool 11 is adapted to be inserted into the end of the hammer by means of which it is forced against the type plate. The standard 7 has a reduced portion 12 which passes through the table 1 and is secured thereto by means of the nut 13. Suitable rolling bearings 14 are arranged to support the standard 7, as shown in Fig. 3. Other rolling bearings 15 are arranged in the standard 7 to support the arm 6. (See Figs. 3 and 4.)

Clamping means are provided for securing the type plate on the supporting member which comprises a plate secured to one side of the member 1 and forming a shoulder 16 which has a serrated edge 17, which is adapted to be embedded into the edge of the type plate. A similar shoulder 18 having a serrated edge 19 is formed on the arm 20, pivotally mounted on a block 21. The block 21 is slidably supported in a dovetailed groove 22 located along the rear edge of the supporting member 1. A spring 23 normally urges the arm 20 to cause the serrated shoulder 18 to engage the edge of the type plate opposite that which is engaged by the shoulder 16. A clamping screw 24 is adapted to secure the block 21 in any position to which it is adjusted.

The operation of the device shown is as follows: A type plate is placed upon the plate 3 with the printing face thereof against the face 4 of the plate 3. The type plate is urged against the serrated shoulder 16 so as to cause the serrations to become embedded in the metal of the type plate. The block 21 is then shifted to a position that will permit the serrated edge of the shoulder 18 to be embedded in the opposite edge of the type plate. This is conveniently done by pulling the arm 20 outwardly away from the plate and releasing it, whereupon the spring 23 will force the serrations into the metal of the type plate. The operator then grips the controlling sleeve 10 of the pneumatic hammer and with his other hand resting on the head of the hammer guides the tool 11 over the type plate to cause it to hammer the low portions of the type plate which have been indicated in the usual

manner previous to placing the plate on the supporting member.

In this device the operator can very quickly bring the low portions of the printing plate into true alinement throughout the entire surface.

Although but one specific embodiment of this invention has been herein shown and described, it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

I claim:

1. A device of the class described, comprising a supporting member having a true plane surface thereon for supporting a type plate for the purpose of having the printing face thereof brought into alinement, and a power operated hammer suspended above said member and freely movable over the surface of the type plate, the support for said hammer being arranged to normally maintain the same a substantially uniform distance from said plane surface for all positions of said hammer with respect to said supporting member.

2. A device of the class described, comprising a supporting member having a true plane surface thereon for supporting a type plate for the purpose of having the printing face thereof brought into alinement, a standard rotatably mounted on said supporting member on its vertically disposed axis, an arm mounted on said standard to shift longitudinally, and a pneumatic hammer carried by said arm, said standard and arm coacting to permit said hammer to be moved over the surface of the plate, and normally maintain a substantially uniform distance from said plane surface for all positions of said hammer with respect to said supporting member.

3. A device of the class described, comprising a horizontally disposed supporting member having a true plane surface thereon upon which a type plate is adapted to be placed for the purpose of having the printing face thereof brought into alinement, a standard rotatably supported at one side of said member on a vertically disposed axis, a horizontally disposed arm slidably mounted on said standard, and a pneumatic hammer supported on said arm in a vertically disposed position, said arm and standard coacting to permit said hammer to be moved over the surface of the type plate and normally maintain said hammer a substantially uniform distance from said plane surface for all positions of said hammer with respect to said supporting member.

Signed at Chicago this 29th day of December 1913.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."