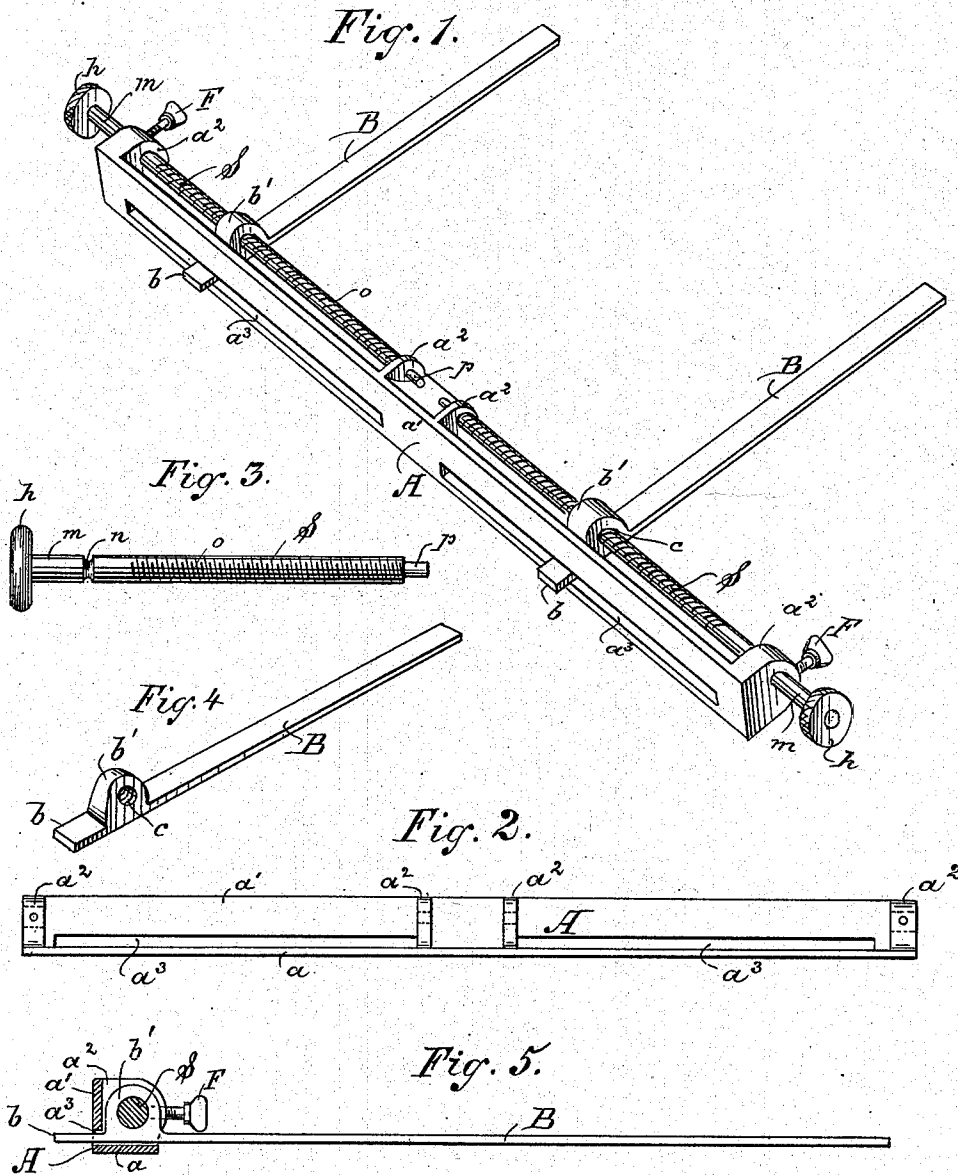


(No Model.)

J. WATSON.
GRIPPER FOR PRINTING PRESSES.

No. 552,627.

Patented Jan. 7, 1896.



Witnesses:

J. Haeger
N. Cantillz

Inventor:

Joseph Watson
per Charles Raettig
his Attorney.

UNITED STATES PATENT OFFICE.

JOSEPH WATSON, OF NEWARK, NEW JERSEY.

GRIPPER FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 552,627, dated January 7, 1896.

Application filed August 15, 1895. Serial No. 559,424. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH WATSON, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Grippers for Printing-Presses, of which the following is a specification.

My invention relates to grippers used on printing-presses, and its object is to provide means by which they can be moved laterally with great accuracy and kept firmly in any desired place without the aid of a wrench or other tool, which arrangement also allows the gripper-arms to be moved and set in place, while the bed and platen of the press are in close proximity; and my invention consists of a novel combination of parts, hereinafter described, and illustrated in the annexed drawings, of which—

Figure 1 is a perspective view of the gripper. Fig. 2 is a front elevation of the gripper-plate. Fig. 3 represents an elevation of one of the two screw-shafts employed to set the gripper-arms. Fig. 4 is a perspective view of a gripper-arm. Fig. 5 is a transverse section through the gripper-plate.

A gripper-plate A is formed of two plates a a' , joined preferably at right angles to each other and connected by a series of lugs a^2 , carrying bearings for the screw-shafts S, hereinafter described. Equidistant from the center of one of these plates a' are provided two slots a^3 , of sufficient width to receive and guide the tail ends b of the gripper-arms B. Each gripper-arm B is provided near one end with a hub b' , projecting above, through which a cavity c passes at right angles to the length direction of the gripper-arm and parallel to its lower face. This cavity c is provided with a screw-thread made to engage with that cut upon a portion of a screw-shaft S. A screw-shaft S, two of which are provided, one for each arm, is mounted at each end of the gripper-plate, and is formed of five distinct parts. A hand-wheel h at the outer end adjoins a cylindrical portion m , the greater part of which projects from an end of a gripper-plate when mounted in place. Then follows a groove or annular recess n , which is covered by a lug a^2 of the gripper-plate A when in position, and which engages with a preferably rounded

point of a set-screw F, mounted in a lug a^2 , and permits of the shaft S being turned when desired, and secures it in a fixed position to the gripper-plate laterally. Then follows the screw-threaded portion o of the shaft, and finally a trunnion P.

The operation in joining the disconnected parts of the gripper is then as follows: A screw-bar S is guided through a bearing in one of the end blocks a^2 of the gripper-plate. A gripper-arm B is so adjusted on the gripper-plate that its end b projects through a slot a^3 until the opening c arrives opposite the end of the screw-bar S, when the trunnion P is passed through it and the screw-threaded portion o of the shaft is screwed into the lug or hub b' to any desired depth, and the motion of entering the screw-shaft is then continued until the trunnion P is resting in its socket provided in a lug a^2 of the gripper-plate A. A set-screw F is now screwed into lug a^2 , covering a groove n in the shaft S, until its point enters the groove n and thus locks all the parts in their relative positions. This operation having been completed at both ends of the gripper-plate, and one gripper-arm and screw-shaft having been secured to each end, the gripper is ready for use. The turning of a hand-wheel h will move a gripper-arm either from or toward the center of the gripping-plate. The projecting ends m m of the shafts S can now be used as trunnions for securing the gripper to the platen or to the frame of the press, the set-screws F being drawn tight to prevent the involuntary turning of the shafts S when the gripper is operated in the customary manner by means of springs, a cam, and an arm secured upon the gripper-plate A. (Not especially shown in the drawings.)

All the parts being in position, the operation of setting and adjusting a gripper-arm is very much simplified by using this gripper. All that is to be done in adjusting a gripper-arm is to loosen the respective set-screw F, turn the hand-wheel n until the change of position is effected, and tighten again the set-screw F, and the press is ready for use.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In a gripper for printing presses the com-

combination of gripper-arms B having hubs b' with the angular gripper-plate A having lugs a^2 and slots a^3 , with the screw-shafts S having hand-wheels h and with the set-screws F
5 as and for the purposes herein shown and described.

Signed at New York, in the county of New

York and State of New York, this 14th day of August, A. D. 1895.

JOSEPH WATSON.

Witnesses:

HENRY C. MECKLEM, Jr.,
A. F. STEWART.