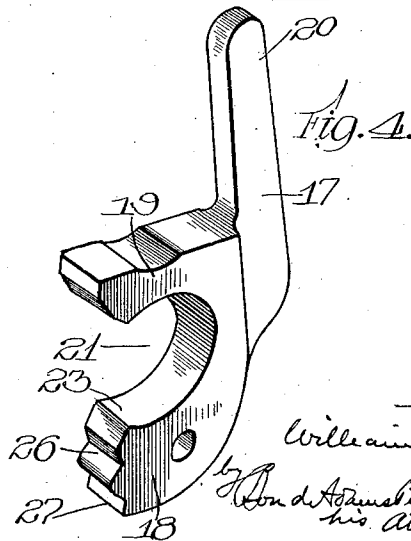
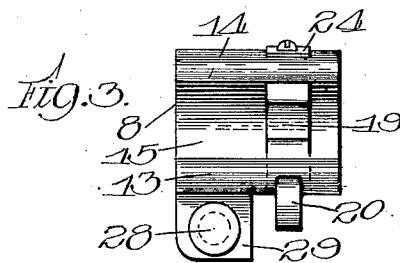
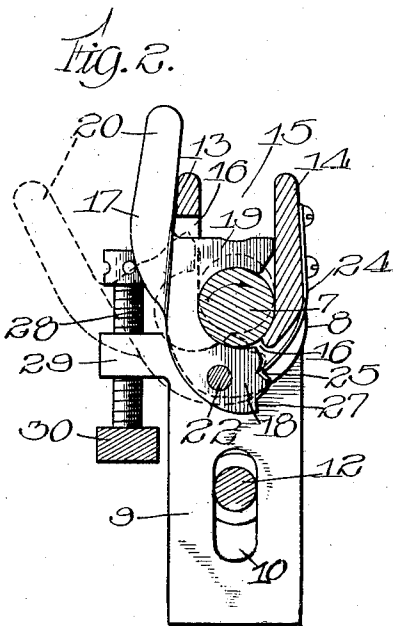


1,016,486.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM EVENSEN, OF CHICAGO, ILLINOIS, ASSIGNOR TO GOSS PRINTING PRESS COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

ROLLER-SOCKET FOR PRINTING-PRESS ROLLERS.

1,016,486.

Specification of Letters Patent.

Patented Feb. 6, 1912.

Application filed November 13, 1908. Serial No. 462,488.

To all whom it may concern:

Be it known that I, WILLIAM EVENSEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Roller-Sockets for Printing-Press Rollers, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to printing presses, and particularly to the devices for supporting the usual inking rollers by which ink is applied to the forms.

It has for its object to provide a new and improved device in the form of a socket which will receive the ends of the roller shaft and not only form a bearing therefor, but will also lock the shaft in place so that while it may rotate freely it cannot be accidentally displaced.

A printing press roller must necessarily be adjusted so as to properly come in contact with the form, and if it is displaced even to a slight extent so that the ink is not properly applied to the printing surface a large number of papers may be very quickly ruined owing to the speed at which perfecting presses are operated.

A further object is to provide a self-locking construction in a socket in which suitable lever mechanism is provided for lifting the roller when it is desired to raise it out of operative position temporarily.

In the operation of printing presses it is frequently necessary to raise the inking rollers out of contact with the forms when the press is stopped and to hold them in their elevated position in order to protect the roller from the flattening which would ensue if the roller were allowed to rest on the form for any considerable length of time while not rotating.

I accomplish these objects as illustrated in the drawings and as hereinafter described.

What I regard as new is set forth in the claims.

In the accompanying drawings,—Figure 1 is an elevation illustrating a portion of a printing roller, showing my improved socket in end view; Fig. 2 is a vertical section on line 2—2 of Fig. 1; Fig. 3 is a plan view

of the socket; and Fig. 4 is a perspective view of the socket lever.

Referring to the drawings,—5 indicates the inking roller, and 6 the usual form cylinder.

7 indicates the inking roller shaft, the ends of which form journals on which the inking roller rotates.

8 indicates my improved socket, which is in the form of a fork having a shank or bracket 9 at the bottom which is slotted, as shown at 10 in Fig. 2, and is adapted to be secured to the frame 11 of the press by a bolt 12, as shown in Figs. 1 and 2. The upper portion of the socket, as has been stated, is forked,—13—14 indicating the side members thereof, which are separated to form a recess 15, the width of which is substantially equal to the diameter of the roller shaft 7. Said recess is rounded at the bottom to conform to the curvature of the shaft 7. The socket is provided with a slot 16, which extends from near the upper end of the member 13 partly down and under the recess 15, as best shown in Fig. 2. The slot 16 is designed to accommodate the operating lever 17. The shape of the lever 17 is best shown in Fig. 4, from which it will be seen that it is provided with three members—a lower or fulcrum member 18, an intermediate member or locking arm 19, and an operating member or handle 20.

As shown in Figs. 2 and 4, the locking arm 19 extends laterally over the fulcrum member 18, a recess 21 being formed between said members which is curved in the arc of a circle of substantially the same diameter as the roller shaft 7, so that when said shaft is in position in the socket and the operating lever is in its normal position, said shaft lies in and fills the recess 21 in the manner shown in Fig. 2. The fulcrum member 18 is mounted on a pivot or fulcrum 22 secured in the lower portion of the socket below the recess 15 and lying approximately centrally between vertical planes bounding the inner sides of said socket, as shown in Fig. 2. The purpose of so placing the pivot 22 is to insure the automatic locking of the roller shaft in position by the locking arm 19 and prevent the accidental movement of said arm out of operative position.

As shown in Fig. 2, the arm 19 extends across the recess 15 over the roller shaft, and it conforms to the curvature of said shaft, and consequently as the pivot 22 lies approximately centrally under the shaft and the operative part of said arm 19 upward pressure applied to the shaft 17 cannot move the arm 19 laterally out of operative position. In fact, considerable lateral movement of said arm is necessary before the shaft can be released. The position of the pivot 22 may be varied to some extent, but it should be near enough to the vertical plane of the axis of the shaft so that upward pressure applied to the roller or shaft when the arm 19 is in operative position, or nearly so, cannot force said arm outward and release the shaft.

When the arm 19 is in operative position, the handle 20 of the lever 17 extends upward beside the member 13 of the socket, against which it bears, as shown in Fig. 2. When the handle 20 is thrown out to the position shown in dotted lines in Fig. 2, the arm 19 moves from over the shaft 7 so that the shaft may be lifted. For the purpose of lifting the inking roller slightly when the shaft is unlocked the fulcrum 22 is placed a little to one side of the vertical plane of the axis of the roller and the fulcrum member 18 is provided with an upwardly-projecting shoulder 23 which is so placed as to project up into the recess 15 when the handle 20 is operated to release the shaft, as illustrated in dotted lines in Fig. 2, thereby raising the shaft so that the inking surface of the roller does not lie in contact with the form cylinder. The lever 17 is held in one position or the other by means of a retaining spring 24 secured to the member 14 and having a V-shaped bend 25 at its lower end adapted to fit in notches 26-27 formed in the end of the fulcrum member 18. The spring 24 does not positively lock the lever in either of its positions, but serves more as a brake to prevent accidental movement of said lever. It will be understood that my improved socket is applied to the press in such manner that the inking roller rotates in the direction indicated by the arrow in Fig. 2, so that it has a tendency to keep the operating lever in closed or locking position through its frictional engagement with the arm 19.

28 indicates an adjusting screw fitted in a lug 29 which projects from the upper portion of the bracket 9, said screw being adapted to bear upon a fixed portion 30 of the frame of the press so that by adjusting said screw the socket may be vertically adjusted, the set-screw 12 having been first loosened.

So far as I am aware, no one has heretofore provided a roller socket of the type de-

scribed provided with means for automatically locking the roller shaft in position, and in which the locking devices are so constructed that the shaft cannot be released by forcing it outward against the locking member. This is, therefore, claimed broadly.

While my improved socket is intended primarily for holding inking rollers and is usually placed so that the slot or recess 15 is in a vertical position, it may be used for holding shafts employed for other purposes and may also be employed in other positions than that shown.

That which I claim as my invention, and desire to secure by Letters Patent, is,—

1. In combination, a roller-holder having a slot adapted to receive the shaft of a roller, a pivoted locking lever having a rigid arm adapted to be projected over said shaft when the latter is in operative position in said slot, the pivot of said lever being between the planes of the sides of the slot and having means adapted to be actuated by the moving of the roller-shaft into operative position in the slot to automatically move said arm into locking position.

2. In combination, a roller-holder having a slot adapted to receive the shaft of a roller, a pivoted lever having a rigid arm adapted to be projected over the shaft when the latter is in operative position in said slot and acting to lock the same against outward movement, the pivot of said lever being in line with said slot and near the vertical plane of the center thereof, said lever also carrying means adapted by the movement of the roller-shaft into operative position to automatically move said arm into locking position.

3. A roller-holder having a slot adapted to receive the shaft of a roller and a pivoted locking device having an arm extending under and supporting the shaft when the latter is in inoperative position, and an arm adapted to extend over and automatically lock the shaft against outward movement in the slot when the locking device is actuated to move the shaft into operative position, the pivot of the lever being between the planes of the sides of the slot.

4. In combination, a roller-holder having a slot adapted to receive the shaft of a roller, and an integral locking device adapted to extend over and automatically lock the shaft against outward movement in the slot when said shaft is in operative position and having a member extending under said shaft and operating to lift the shaft when the latter is released, the pivot of the lever being between the planes of the sides of the slot.

5. In combination, a roller-holder having

a slot adapted to receive the shaft of a roller, and an integral pivoted locking lever having a bar extending under the shaft and operating to lift the shaft when the latter
5 is released, and means adapted to extend over and automatically lock the shaft against outward movement in the slot when said shaft is in operative position, the pivot of the lever being between the planes of the sides of the slot.

WILLIAM EVENSEN.

Witnesses:

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GEO. A. EDDY.

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