

R. F. IDE & R. M. WEST.
 GUARD FOR PRESSES.
 APPLICATION FILED MAR. 7, 1914.

1,166,591.

Patented Jan. 4, 1916.
 2 SHEETS—SHEET 1.

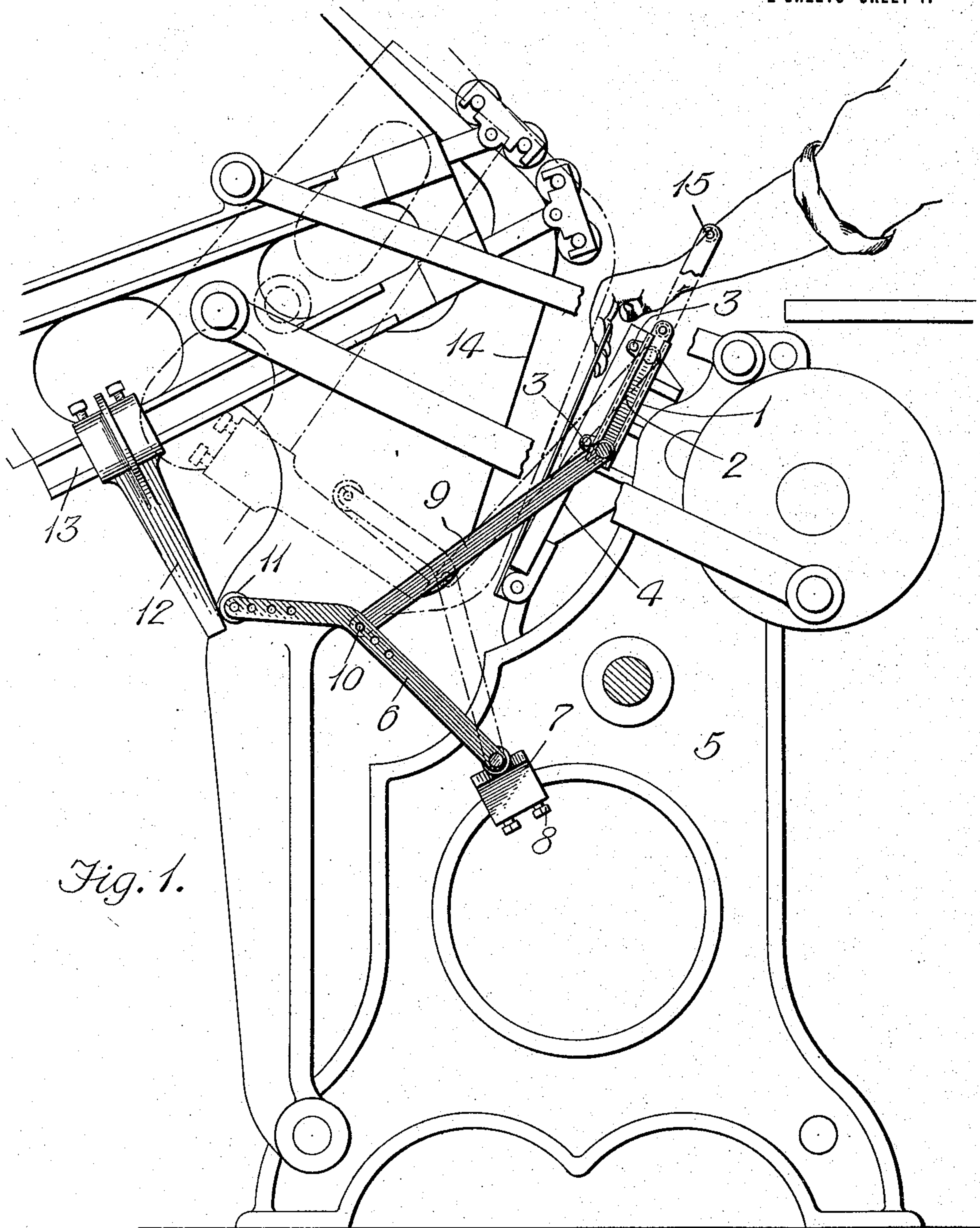


Fig. 1.

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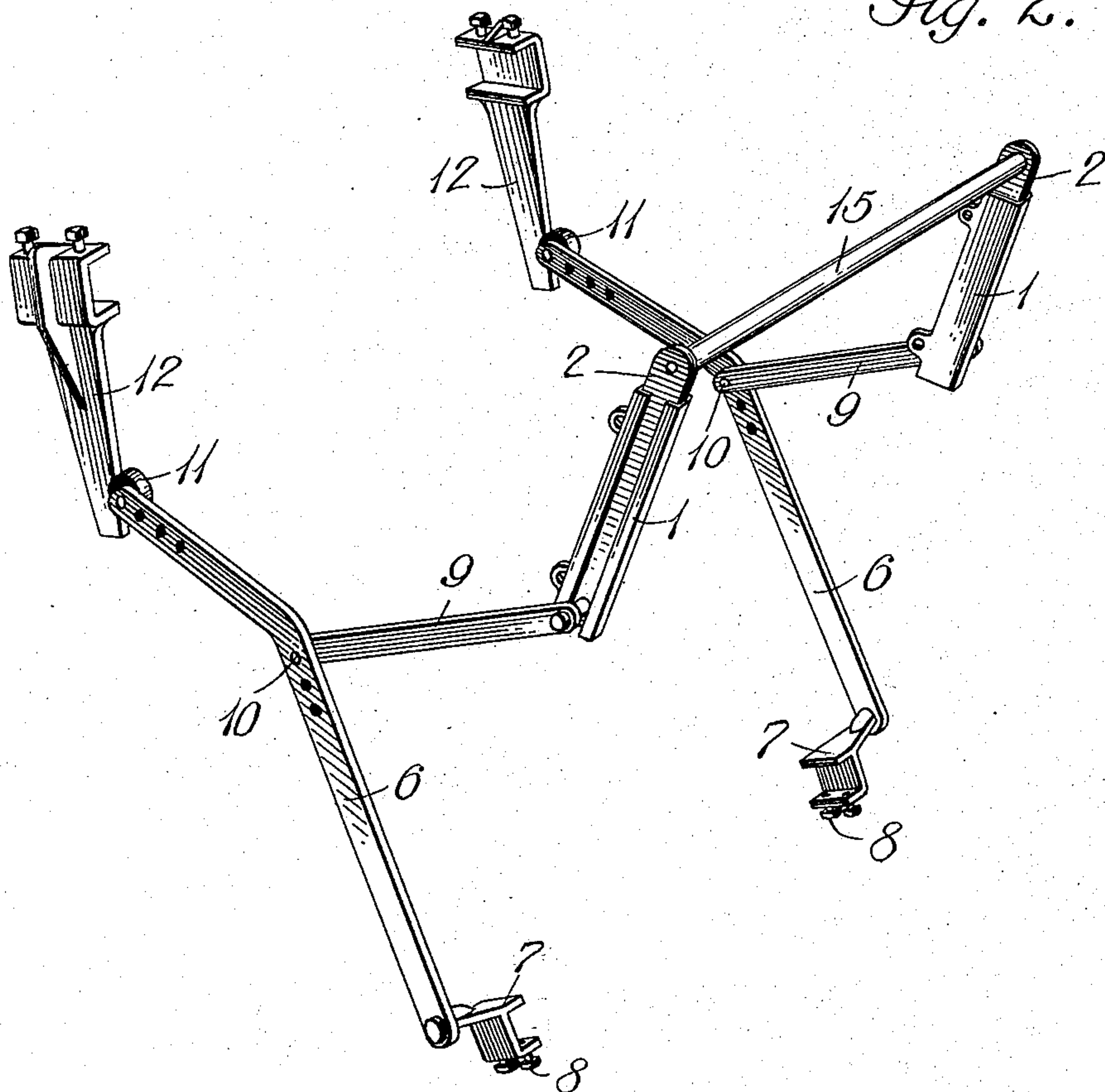
By *Charles H. Harkness* Attorney

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Fig. 2.



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UNITED STATES PATENT OFFICE.

ROY F. IDE AND ROBERT M. WEST, OF DETROIT, MICHIGAN.

GUARD FOR PRESSES.

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Specification of Letters Patent.

Patented Jan. 4, 1916.

Application filed March 7, 1914. Serial No. 823,070.

To all whom it may concern:

Be it known that we, ROY F. IDE and ROBERT M. WEST, citizens of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Guards for Presses, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a guard for presses or similar machinery for the purpose of protecting the hand and arm of the operator thereof from accidental injury.

The particular form herein disclosed is shown in conjunction with a printing press although it may be adapted for use with any machine which has cooperating plates or jaws which swing or move the one toward the other.

The invention consists in the matters hereinafter set forth and more particularly pointed out in the appended claims.

Figure 1 is a view of a press provided with a guard embodying features of the invention; and Fig. 2 is a view in detail of the guard removed from the members.

Referring to the drawings a pair of oppositely disposed bars 1 of any convenient type that afford proper guidance for a pair of reciprocating members 2, arranged to be secured as by cap screws 3 or the like on the margins of a platen 4 of standard type printing press 5 that is herein shown diagrammatically with parts omitted. A pair of lever arms 6 are pivoted at their inner ends to suitable blocks 7 which are arranged to be adjustably clamped as by set screws 8 to a suitable part of the press. Links 9 articulate the guide members 2 to the lever arms 6, pivotal connection 10 between the links and levers being between the extremities of the latter. Anti-friction rollers 11 or other suitable means are arranged on the levers to lie in the planes of movement of a pair of knock off arms 12 each of which is clamped to a moving member 13 of the press. This member may be any part which is so disposed that when the platen 4 approaches its cooperating member indicated at 14, the engagement of the arms with the rolls 11 operates the levers 6 and the guides 2 to move the latter up and thereby raise a guard 15 which connects the corresponding portions of the guides 2. This guard rod is so actuated that it underlies the arm

of the operator when the latter is engaged in feeding the press and thereby throws the same upward a sufficient distance to withdraw the hand from the space between the platen 4 and the cooperating member 14 when the press is about to make an impress, the device being so timed that removal of the operator's hand is effected in ample season to prevent injury. The parts are here shown as if returning by gravity to the original position when the press opens. It is to be understood that springs or counterweights may be added if desired to more positively effect this operation. As a result of this construction a machine of this type which is equipped with a guard of this character cannot injure the operator when the latter is feeding the machine in the usual manner as the device pushes the hand away and positively prevents admission or retention of the hand in the danger zone.

One feature of the device is its adjustability to presses and machines of different types, the disposition of the parts being such that adjustments to obtain different speeds of movement are feasible.

Obviously, changes in the details of construction may be made without departing from the spirit of our invention and we do not care to limit ourselves to any particular form or arrangement of parts.

What we claim is:—

1. A guard for presses and similar machines that have cooperating members reciprocable toward and from each other comprising guides adapted to be secured to one of the cooperating members, an arm lifting guard bar, members reciprocating in the guides and carrying the guard bar, members adapted to be pivotally attached adjustably to a press or the like and articulated to the reciprocating members, and knock off members adjustably secured to the other cooperating member and adapted to intermittently move the members articulated to the reciprocating members.

2. The combination with a machine having cooperating members that move to and from each other on a main frame with guides adapted to be secured to one of the cooperating members, an arm lifting guard bar, members reciprocating in the guide and carrying the guard bar, pivot blocks adapted to be adjustably secured to a stationary part of the machine, lever arms pivoted at their inner ends to said blocks, links con-

necting the reciprocating members each
with a companion lever, antifriction rollers
adjustably mounted on the outer ends of the
levers, and knock off arms carried by the
5 other reciprocating member adapted to in-
termittently oscillate the levers simulta-
neously.

In testimony whereof we affix our signa-
tures in presence of two witnesses.

ROY F. IDE.

ROBERT M. WEST.

Witnesses:

C. R. STICKNEY,

A. M. DORR.

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