April 21, 1925. 1,534,496

L. A. BIGGAR

GUARD

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Fig. 1

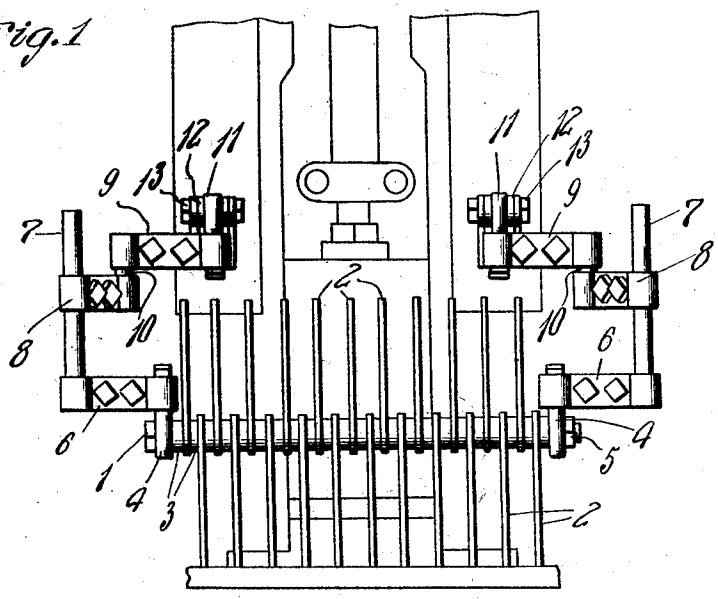


Fig. 3.

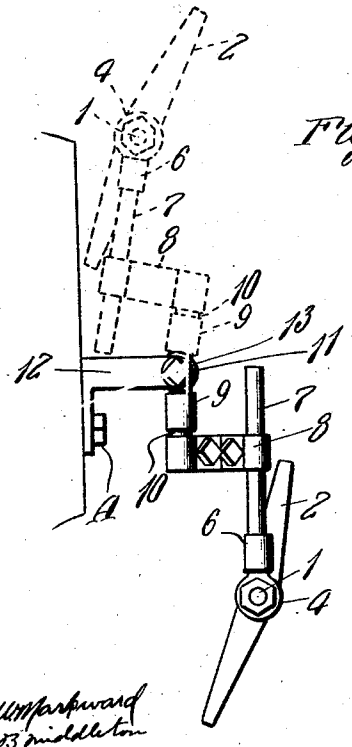
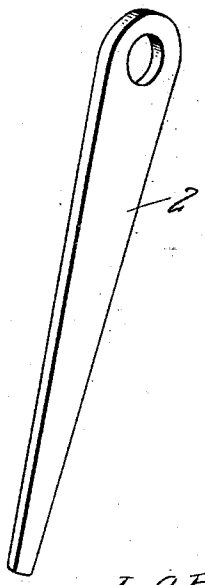


Fig. 4.



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Fig. 2.

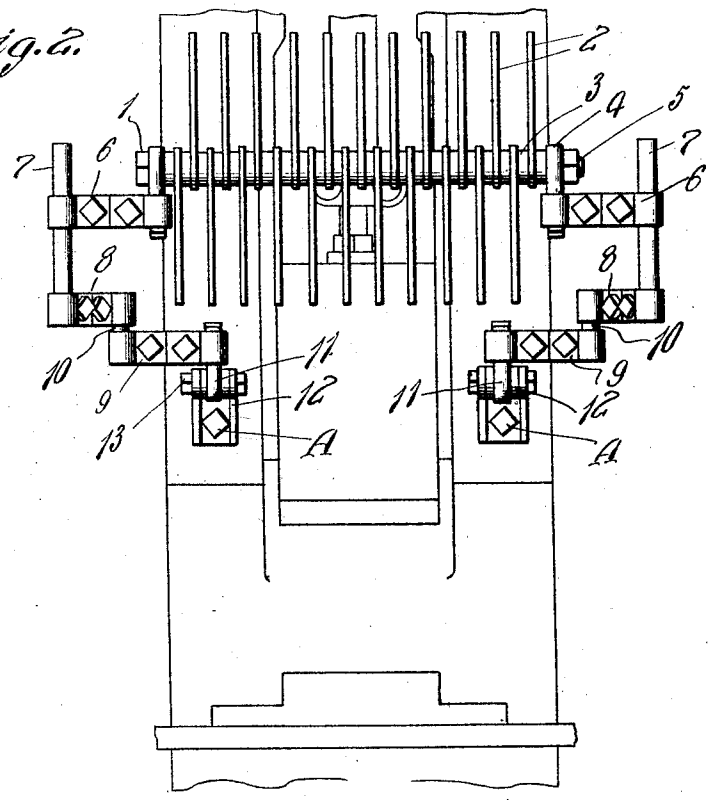


Fig. 5.

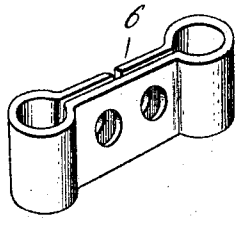
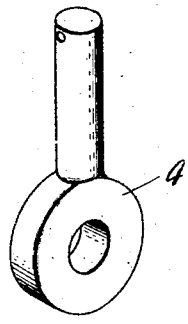


Fig. 6.



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Wm. Marquard
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WITNESS:

Patented Apr. 21, 1925. 1,534,496

UNITED STATES PATENT OFFICE.

LEROY A. BIGGAR, OF ONEIDA, NEW YORK.

GUARD.

Application filed January 2, 1924. Serial No. 684,053.

To all whom it may concern:

Be it known that I, LEROY A. BIGGAR, a citizen of the United States, residing at Oneida, in the county of Madison and State of New York, have invented new and useful Improvements in Guards, of which the following is a specification.

This invention relates to a guard for a punch press, the general object of the invention being to provide means for preventing the operator from accidentally placing his hand in the press and thus injuring himself.

Another object of the invention is to so form the device that it can be easily and quickly placed in operative or inoperative position as desired.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a front view of a press showing the device in use.

Figure 2 is a similar view with the device in raised position.

Figure 3 is a side view with the device in lowered position in full lines and in raised position in dotted lines.

Figures 4, 5 and 6 are detail views of the device itself.

In these views 1 indicates a long bolt upon which a plurality of fingers 2 are threaded, the fingers being spaced apart by the washers 3. The fingers are arranged in two sets with the fingers of the different sets extending in opposite directions though said fingers can be adjusted to extend in any desired direction. The ends of the bolt pass through the eye members 4, the parts being held assembled on the bolt by its head engaging one eye member and its end 5 engaging the other eye member. Each eye member passes through a loop formed on a link 6 and a rod 7 is supported by a loop at the other end of this link. Each rod 7 passes through a loop formed on a link 8 and a link 9 is connected with each link 8 by a rod 10 which passes through loops formed on the links. Each link 9 has a looped end engaging the stem of an eye member 11, the eye of which is fastened to the ears of a bracket 12 by the bolt 13. These brackets are adapted to be bolted to a press such as shown at A and it will be seen that by reason of the various hinge connections the device can be adjusted so that it will fit almost any kind of a press and that it is capable of being swung upwardly so as to expose the opening in the press, as shown by the dotted lines in Figure 3 but can be swung downwardly as shown in Figure 1. The fingers can also be adjusted to various positions. The fingers are made a suitable length to guard the die and also guard the press head.

From the foregoing it will be seen that the device can be easily and quickly adjusted to the press on which it is to be used and it can be easily moved to any desired position by the operator to permit him to place the objects to be worked in the press and to remove them therefrom and if the operator does not wish to use it, it can be swung upwardly out of the way without unloosening any bolts.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. A guard of the class described comprising a bolt, a plurality of fingers threaded thereon, washers threaded on the bolt for spacing the fingers apart, eye members for supporting the bolt, a pair of brackets and a plurality of hinged parts for connecting the brackets with the eye members.

2. A guard of the class described comprising a bolt, a plurality of fingers threaded thereon, washers threaded on the bolt for spacing the fingers apart, eye members for supporting the bolt, a pair of brackets and a plurality of hinged parts for connecting the brackets with the eye members, said hinged parts comprising a number of looped links and rods engaging the loops and the eye members having stems for engaging some of the loops.

In testimony whereof I affix my signature.

LEROY A. BIGGAR.