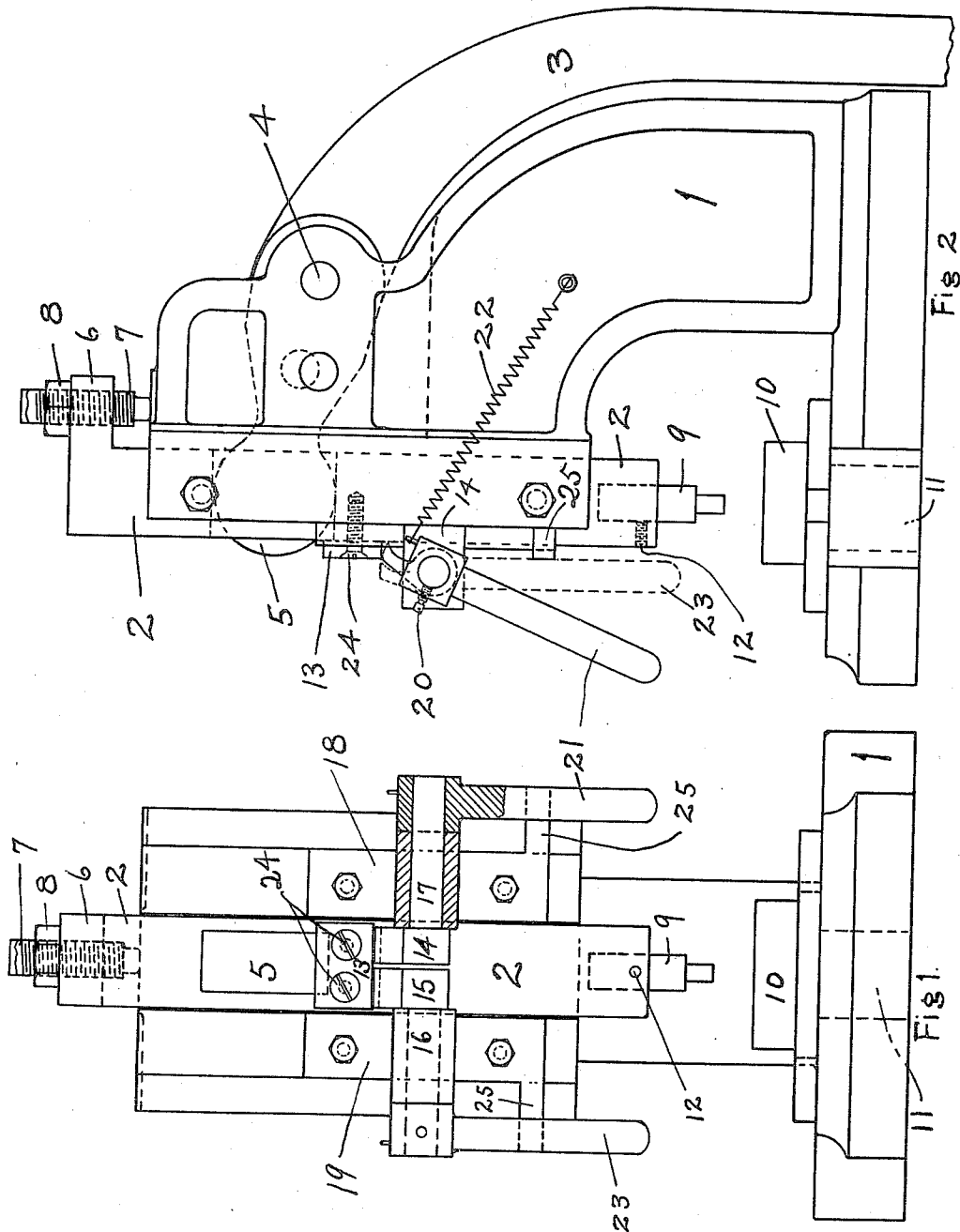


O. J. SENFTLEBEN.
SAFETY DEVICE FOR PRESSES.
APPLICATION FILED JUNE 21, 1912.

1,044,696.

Patented Nov. 19, 1912.



WITNESSES:
William A. Radtke
Roscoe W. Sauber

INVENTOR
Otto J. Senftleben
BY
Andrew Neureuther
ATTORNEY

UNITED STATES PATENT OFFICE.

OTTO J. SENFTLEBEN, OF PERU, ILLINOIS, ASSIGNOR TO WESTERN CLOCK CO., OF LA SALLE, ILLINOIS, A CORPORATION OF ILLINOIS.

SAFETY DEVICE FOR PRESSES.

1,044,696.

Specification of Letters Patent.

Patented Nov. 19, 1912.

Application filed June 21, 1912. Serial No. 704,965.

To all whom it may concern:

Be it known that I, OTTO J. SENFTLEBEN, a citizen of the United States, and a resident of the city of Peru, county of Lasalle, and State of Illinois, have invented certain new and useful Improvements in Safety Devices for Presses, of which the following is a specification.

My invention relates to improvements in safety devices for presses and has for its object the production of such a safety device in which it is necessary that both hands be removed from the proximity of the punch and die before the punch can descend.

It is a well known fact that many fingers and parts of hands are lost or disfigured by presses used in the sheet metal art, due to the fact that the operator either actuates or starts these machines by means of a lever operated by his foot, leaving the hands free to hold the work to place it in the dies or to be carelessly thrust in under the punch and injured or amputated.

My invention entirely obviates the danger of injury because it makes it necessary for the hands to be a considerable distance away from the dangerous operative parts of the mechanism, before the punch can descend.

For convenience I have shown my invention applied to an ordinary foot press in the drawings.

In these drawings, Figure 1, shows a front view of a foot press having my invention showing a portion thereof in section. Fig. 2, is a side view of Fig. 1.

Similar numerals represent similar parts throughout the several drawings.

In the drawing 1 represents the frame of the press which is shaped as shown and has a member or head 2 slidably mounted in the upper forward portion of the same. Head 2 is actuated by means of the end 5 the foot lever 3 which is pivoted on a pin 4 fastened in 1 as shown, the end 5 passing through a slot in the head 2. The head 2 has a projection 6 on its upper portion through which passes a bolt 7 which has a locknut 8, which bolt 7 acts as a stop to regulate the distance that 2 can be moved downwardly.

The head 2 has the punch 9 inserted in its lower end and held in position by means of a set screw 12. Immediately below this punch 9 is the die 10 which is fastened to

frame 1 which frame 1 has an aperture 11 immediately under the die to allow the punching of sheet metal to fall through from the die.

Fastened to the front of head 2 by means of screws 24 is a plate 13 which acts as an abutment for two pawls 14 and 15 which are fastened to the shafts 16 and 17 which are journaled in bearings 18 and 19 respectively, which bearings are fastened to frame 1 on opposite sides of the head 2 by the bolts shown. Fastened to 17 by means of set screw 20 is a lever 21 which is shown in its usual position with the pawls 14 and 15 held under plate 13 by means of a coiled spring 22. When the lever 21 is in the position shown the head 2 cannot descend. In order for the head 2 to descend it must be moved inwardly toward the stop 25 as indicated by the dotted lever 23 which is drawn in the inward positions of these levers for convenience. Lever 23 is fastened to shaft 16 the same as is lever 21 to shaft 17, and said lever also has a coiled spring to hold it in its locking position as above explained.

From the above description it is evident the head 2 cannot be lowered until both the pawls 14 and 15, which are independent of each other, are moved out of the path of the plate 13, so that it is necessary for the operator to take one lever, say lever 21 in the right and lever 23 in the left hand after placing the work in the die 10 under the punch 9, so that before the punch 9 can descend both of the operator's hands and fingers are a safe distance from any possible place of injury.

As soon as the operation is complete and the hands removed from the levers and the head 2 is up the pawls 14 and 15 immediately are brought into the locking position by means of the coiled spring 22 shown.

It will be understood, of course, that while I have here shown one form of my safety device, I do not wish to limit myself to the exact construction shown, but desire to have it taken in a sense illustrative of any or all forms that come fairly within the scope of my claim.

I claim:—

In a safety device for presses, in combi-

2
nation, a press frame, a member slidably
mounted in said frame, an abutment on said
member, a bearing mounted on each side of
said frame adjacent to said member, a shaft
5 journaled in each of said bearings, a pawl
fastened to each of said shafts adjacent to
said abutment, a lever fastened to each of

said shafts and means for retaining said
pawls under said abutment.

OTTO J. SENFTLEBEN.

Witnesses:

WILLIAM A. RADTKE,
ANDREW H. NEUREUTHER.