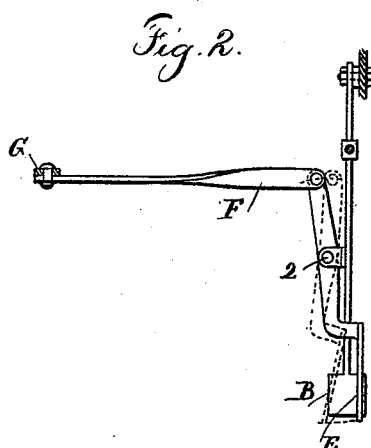
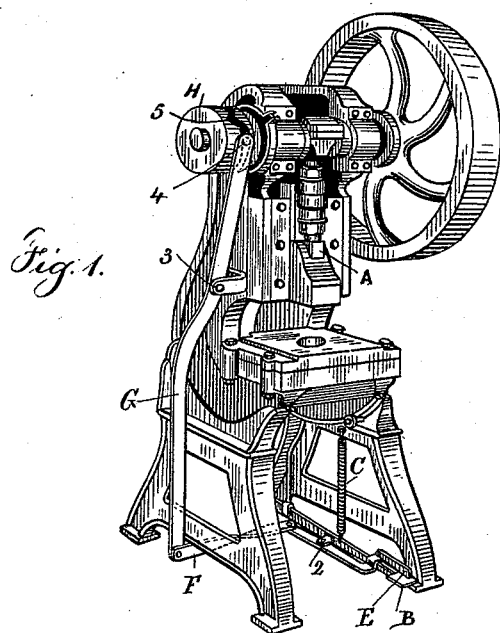


(No Model.)

J. M. MUNGIVEN.
SAFETY TREADLE FOR POWER PRESSES.

No. 421,747.

Patented Feb. 18, 1890.



Witnesses

Chas. H. Smith
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UNITED STATES PATENT OFFICE.

JAMES M. MUNGIVEN, OF BROOKLYN, ASSIGNOR TO SILAS A. ILSLEY, OF NEW YORK, N. Y.

SAFETY-TREADLE FOR POWER-PRESSES.

SPECIFICATION forming part of Letters Patent No. 421,747, dated February 18, 1890.

Application filed December 16, 1889. Serial No. 333,896. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. MUNGIVEN, a citizen of the United States, residing in the city of Brooklyn, county of Kings, and State of New York, have invented an Improvement in Safety-Treadles for Power-Presses, of which the following is a specification.

Power-presses are extensively made use of for stamping up various articles, especially those made of sheet metal, and in placing the article upon the bed of the press the attendant, usually a female, often passes the fingers beneath the reciprocating die or punch, and it is usual to make use of a treadle that brings into action a clutch for connecting the power to the reciprocating die or punch and holder, and if the attendant does not remove the foot entirely from the treadle a second stroke is made of the punch or holder, and the fingers of the attendant are very often injured before they are moved from beneath the punch, and in this manner the attendant is often incapacitated from earning a living, and the employer, in addition to the expenses of medical attendance upon the injured person, often has to pay damages.

The object of the present invention is to prevent the attendant retaining the foot upon the treadle in such a manner as to cause a second stroke of the power-press, thereby automatically insuring but one stroke of such power-press; but the automatic mechanism does not prevent the foot of the attendant being applied to the treadle to bring into action the power-press at the proper time; hence by my present improvement it becomes impossible for the attendant, through inattention or momentary thoughtlessness, to retain the foot upon the treadle and cause a second stroke of the press either at the risk of injuring the goods or the person.

In the drawings, Figure 1 is a perspective view illustrating the press to which the present improvements may be applied, and Fig. 2 is a plan view of the treadle separately with my safety attachment.

It is to be understood that the power-press herein represented is only illustrative, as the same may be of any desired construction, with the plunger A moving vertically or at an inclination or horizontally, and it is also to be

understood that the treadle B is for bringing into action the mechanism that moves the plunger A, and that this mechanism is well known, and it consists of any suitable coupling or clutch moved by such treadle.

Usually the treadle B is on the right side near the frame of the machine, and said treadle is raised by a spring C when the foot is removed from such treadle, and I make use of the foot-guard E preferably in the form of a plate standing vertically and at the side of the treadle next to the frame, in order that it may not interfere with the foot in placing it on or moving it off of such treadle, and this foot-guard E is at the end of a lever, to which a motion is given automatically at the proper time to cause the foot-guard to swing or sweep across the treadle B, and hence if the person's foot remains upon the treadle the same is pushed off of the treadle, in order that there may be nothing to interfere with the treadle rising at the proper time for the coupling to be disconnected and the machine stopped. This foot-guard and its lever are mounted and moved in any desired manner, according to the character of the machine and the most convenient connection to the motive power.

In machines of the character illustrated in the drawings the foot-guard E is preferably pivoted at 2 upon the side of the treadle and connected by a link F to the vertical lever G, the pivot 3 of which is upon the side frame of the machine, and at the upper end is a roller or stud 4, passing into a slotted cam H, which cam is preferably peripheral and formed with a double incline, as represented at 5, in order that the lever G and link F may be moved by the slotted cam and insure the clearance of the foot from the treadle before the time when the treadle has to rise in stopping the machine, and the foot-guard is instantly moved back again, in order that the foot may be restored to the treadle to again bring the press into action at the proper time as the main shaft of the press revolves.

From the foregoing it will be apparent that the attendant cannot retain the foot upon the treadle during the time that the same should be removed therefrom and that injury to the person or the work from absent-mindedness or otherwise on the part of the attendant in

consequence of the monotony of the work or diversion of the attention are effectually prevented.

I claim as my invention—

- 5 1. The combination, with the starting-treadle in a power-press, of a foot-guard and an automatic mechanism for moving the same and forcing the foot off the treadle, substantially as set forth.
- 10 2. The combination, with the starting-treadle in a power mechanism, of the foot-guard formed of a lever pivoted upon the

treadle and a cam and lever connected with the foot-guard and automatically moving such foot-guard to press the foot off the treadle at the proper time for stopping the press mechanism, substantially as set forth. 15

Signed by me this 13th day of December, 1889.

JAMES M. MUNGIVEN.

Witnesses:

GEO. T. PINCKNEY,
WILLIAM G. MOTT.