(No Model.) 2 Sheets—Sheet 1.

A. BELL.

SAFETY GUARD FOR PRINTING PRESS PLATENS.

No. 484,751. Patented Oct. 18, 1892.

Fig. 1.

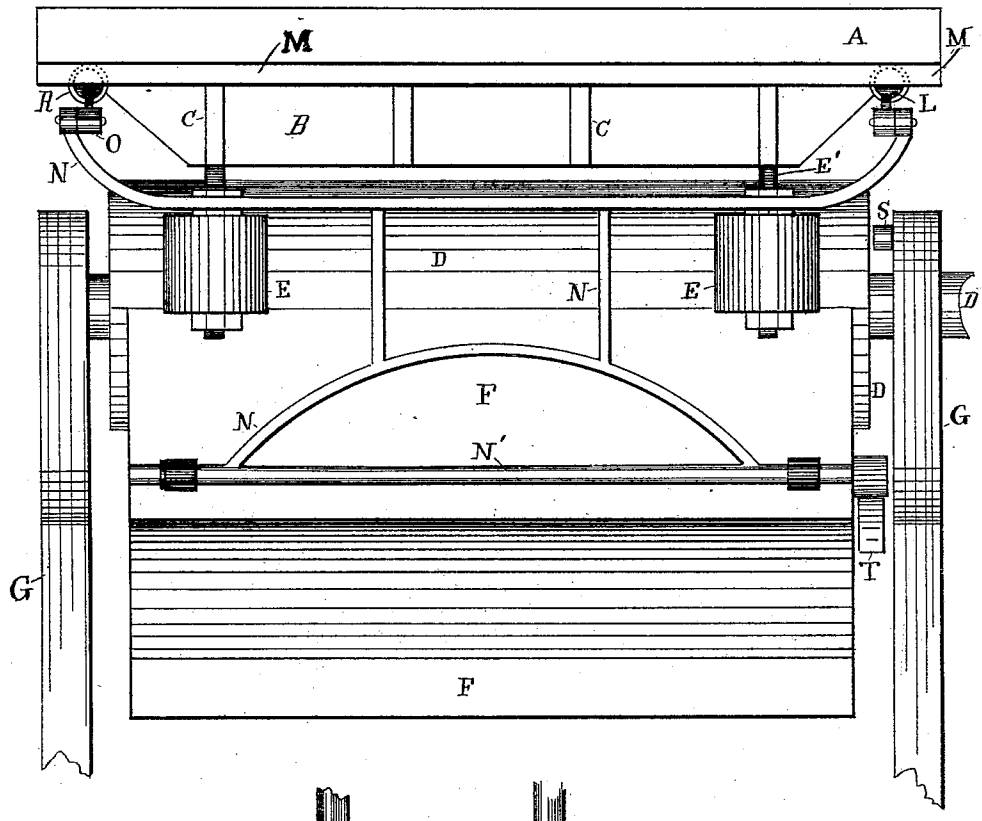


Fig. 3.

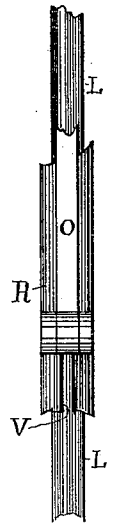
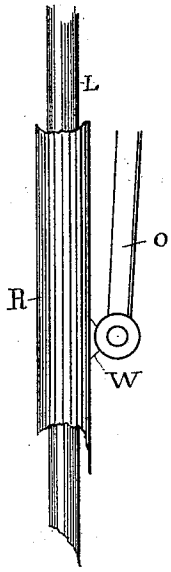


Fig. 4.



WITNESSES:

Amos Headley

Sam R. Simmons, Jr.

INVENTOR

Alonzo Bell.

(No Model.) 2 Sheets—Sheet 2.

A. BELL.

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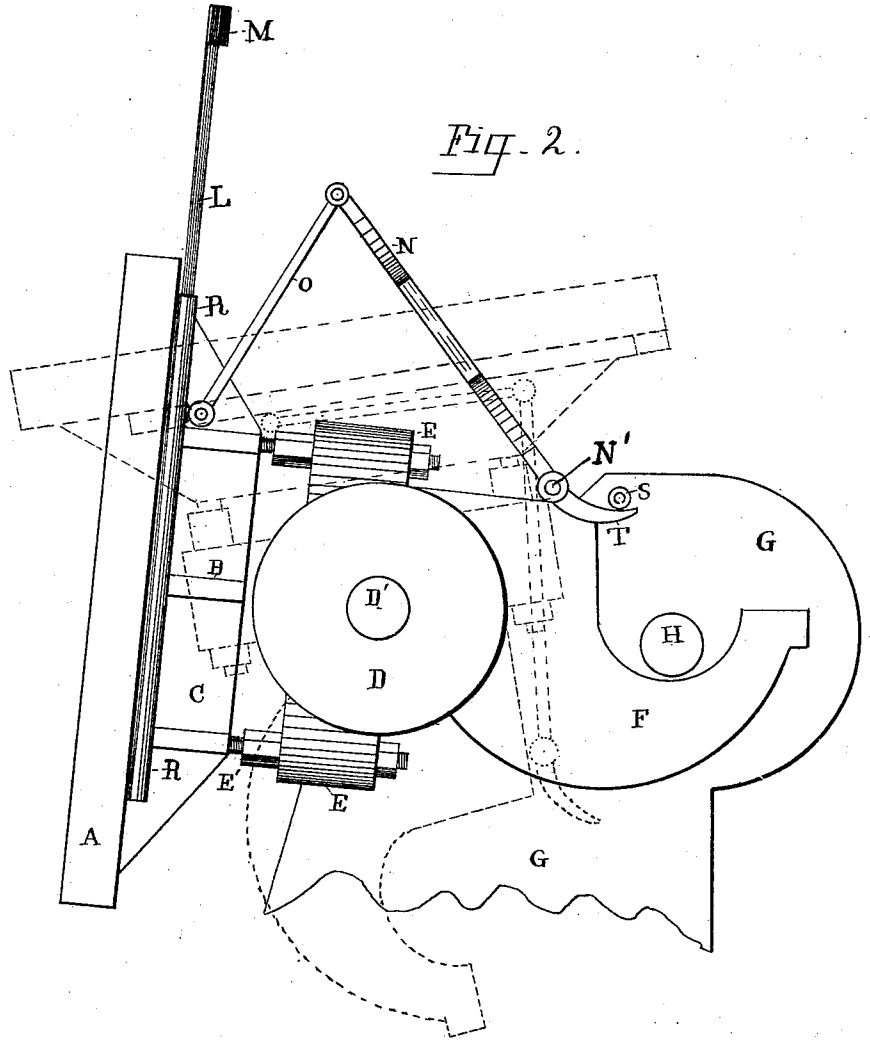
No. 484,751. Patented Oct. 18, 1892.

Fig. 2.



WITNESSES:

Amos Radley

Sam R. Simmons Jr

INVENTOR

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UNITED STATES PATENT OFFICE.

ALONZO BELL, OF NEW YORK, N. Y., ASSIGNOR TO CHARLES T. BELL, OF SAME PLACE.

SAFETY-GUARD FOR PRINTING-PRESS PLATENS.

SPECIFICATION forming part of Letters Patent No. 484,751, dated October 18, 1892.

Application filed June 9, 1892. Serial No. 436,074. (No model.)

To all whom it may concern:

Be it known that I, ALONZO BELL, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Safety-Guards for Printing-Press Platens, of which the following is a specification.

The object of my invention is to provide simple and effective means for protecting from possible injury the hands of pressmen while feeding sheets to oscillating presses. I secure this object by providing a movable safety-guard actuated by any approved mechanical means taking motion, preferably, from the movement of the press, said mechanism being so adjusted as to throw up the guard above the platen just before the impression is to be taken and within safe distance from the bed and to return it as promptly to its normal position as the platen retreats for the removal of the printed sheet and to receive another blank, as will be hereinafter more fully set forth and described.

In the drawings, Figure 1 represents a front elevation of a portion of the upper part of an oscillating press, showing the platen and safety-guard and connecting parts in their normal position. Fig. 2 is a side elevation of similar parts, showing the platen and safety-guard in the position assumed when an impression is taken, the dotted lines indicating the reverse position of the several parts or the normal position shown in Fig. 1. Fig. 3 is an enlarged perspective view of a portion of the guide through which the supporting-rods slide, showing the link connection therewith. Fig. 4 is an enlarged view in perspective, showing a side view of the parts shown in Fig. 3.

In the drawings like letters indicate like parts.

A is the platen; B C, the intersecting framework, made part of the platen-casting and imparting strength to the same.

D is the platen bridge-shaft, supporting the platen by means of the screw-bolts E′, passing through the lugs E E, which form an integral part of the bridge-shaft D.

F is the counter-balance, intended to offset the weight of the platen and frame and is usually made a part of the bridge-shaft casting.

G is the supporting-frame on which the platen bridge-shaft D and the shaft H, carrying the cam-wheel which imparts an oscillating movement to the platen, are journaled. This cam-wheel and other parts of a working press are not shown in the drawings, their presence not being essential to a clear understanding of the construction and operation of my device.

L L are the sliding rods which support the safety-guard M. They have an up-and-down movement through guides R R and are actuated by the movement of the press through connecting-links O O and lever N, said lever being fulcrumed on the counter-balance F at N′. The links O are connected with the sliding rods L at W through slot V. A tripping-pawl T is rigidly secured to one end of lever-shaft N′. The position of the roller-stop S, against which said pawl bears when the safety-guard is lifted, is shown in Fig. 1, and as a matter of convenience it is shown on the opposite side of the supporting-frame in Fig. 2 to indicate its location on the side of the frame not shown.

The operation of my device is as follows: When a sheet is fed to the press, the safety-guard remains at rest until the platen carrying the sheet reaches a point where the services of the guard are needed to insure safety against possible accident. This point, which may be called the "point of danger," is when the platen and bed holding the form are within an inch or two of each other, just before the impression-point of the movement is reached. When the point indicated is reached, the tripping-pawl T has been brought into contact with the stop S, and as the fulcrum-point of the lever N continues to rise the effect is to throw up quickly the safety-guard, and through this to carry up and out of danger the hand of the operator in the event of its being in this dangerous position through carelessness or neglect. It will be seen that any degree of elevation or rapidity of movement can be imparted to the safety-guard by adjustment of the lifting mechanism and that other well-known mechanical movements may be

substituted for the movement herein set forth and described. These immaterial features of application may therefore be changed so as to best adapt the mechanism of the lift to the style of the press to which it may be applied. I therefore do not limit myself to the particular form shown, as it is evident that other well-known mechanical movements for lifting and lowering the safety-guard may be substituted without interfering with the vital feature of my invention.

What I claim as new and of my own invention, and for which I ask Letters Patent of the United States, is—

1. In a printing-press, in combination with an oscillating platen and supporting-frame therefor, a movable safety-guard resting on the back of said platen at or near the top thereof, rods for supporting said guard, guides for said rods to slide in, and operating mechanism for imparting a reciprocating motion to said guard, substantially as set forth.

2. In a printing-press, in combination with a platen and a supporting-frame therefor, a movable safety-guard consisting of a horizontal bar or plate having an up-and-down movement above the upper edge of said platen and back of a line on the plane of the face thereof, rods for supporting said guard, and operating mechanism for imparting a reciprocating movement to said guard, substantially as set forth and described.

3. In an oscillating press, in combination with a platen and supporting-frame, the movable safety-guard M, supporting-rods for said guard, guides for said rods to slide in, a lever for lifting and lowering said guard through said rods, a tripping-pawl on said lever, and a stop-pin for actuating the lever through said pawl, substantially as set forth and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 8th day of June, 1892.

ALONZO BELL.

Witnesses:
AMOS HADLEY,
SAM R. SIMMONS, Jr.