

(No Model.)

A. A. RHEUTAN.
SAFETY ATTACHMENT FOR BOX MACHINES.

No. 536,044.

Patented Mar. 19, 1895.

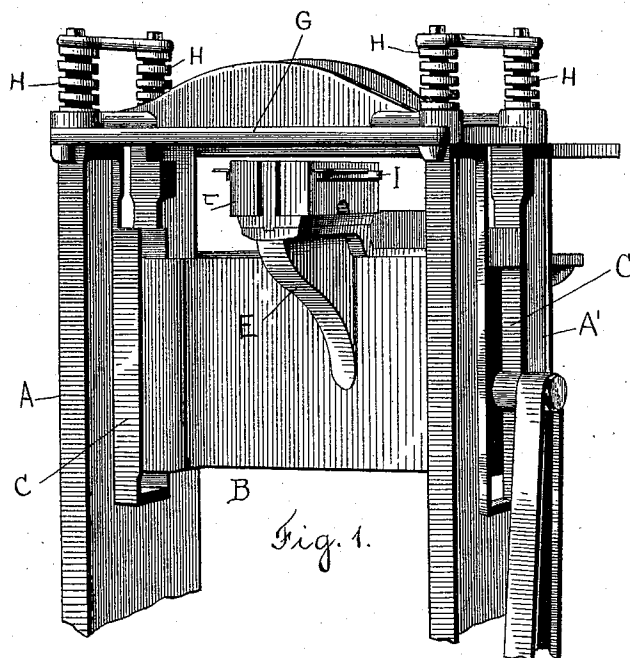


Fig. 1.

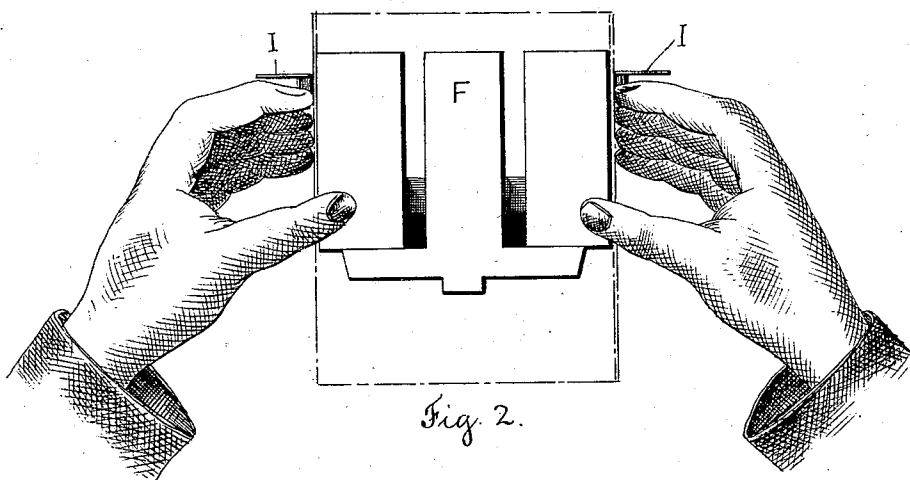


Fig. 2.

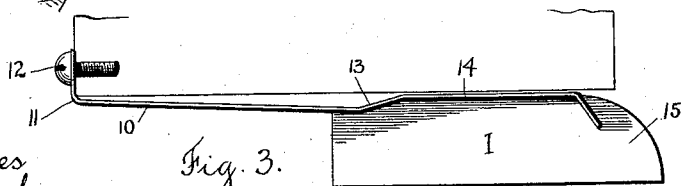


Fig. 3.

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ABRAM A. RHEUTAN, OF WORCESTER, MASSACHUSETTS.

SAFETY ATTACHMENT FOR BOX-MACHINES.

SPECIFICATION forming part of Letters Patent No. 536,044, dated March 19, 1895.

Application filed August 24, 1894. Serial No. 521,223. (No model.)

To all whom it may concern:

Be it known that I, ABRAM A. RHEUTAN, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Safety Attachments for Box-Machines, of which the following is a specification.

My invention relates to that class of machines, which are used for forming the ends of paper boxes, or end-setting or ending, as it is technically called in this art, and the especial object of my invention is to provide machines of this class with safety attachments or guards for the hands of the operator.

To this end, my invention consists of the parts and arrangement of parts as hereinafter described and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a portion of an end-setting box machine showing my safety attachment or guard applied thereto. Fig. 2 is an end view of the form with the safety attachment applied thereto, the position of the work and of the operator's hands being indicated. Fig. 3 is a bottom plan view of my safety attachment or guard removed from the machine.

Referring to the drawings and in detail, A, A' designate the side frames of the machine, which are provided with vertical guide-ways C, C, in which is mounted a reciprocating plate B, which is adapted to be moved up and down by means of suitable pitmen as indicated at D, the said pitmen being connected to and actuated from the driving mechanism of the machine.

Near its center, the reciprocating plate B is provided with a projection or bracket E, the form F being detachably secured to said bracket as shown.

In operating machines of this class, the blank or partially formed box is placed by the operator upon the form F and the machine is operated to raise the plate B until the form F is brought into contact with the platen G. The platen G is held down by springs H as shown, suitable subsidiary devices being provided for closing the box in the well known manner. These parts may be of the ordinary

or approved construction and need not be herein described at further length.

In practice, it has been found that machines of this class are dangerous, as the operator is apt to hold the box or blank onto the sides of the form until the form engages the platen, and if the operator does this his fingers are apt to slip over the top of the form, and to be caught and injured between the form and the platen. To overcome this defect, I have provided safety attachments or guards I, which are arranged at each side of the form as shown. In the construction, which I preferably employ, the guard is formed integrally with a spring clip for holding the work in place and by means of this construction, it will be seen that I have provided a guard plate or projection which will prevent the fingers of the operator from rising above the reciprocating form, while at the same time this guard or projection will not interfere with the work, which may be freely inserted between the spring clip and the side of the form and may be extended above the upper surface of the form in a position to be properly acted upon.

As illustrated in Fig. 3, 10 designates a strip of spring sheet metal, which is bent as at 11 and is secured to the rear end of the form by one or more screws 12. The spring strip 10 is bent as shown as at 13 and is provided with a portion 14, which comes in contact with the side of the form F and aids in holding the work in place. Extending laterally from the spring clip 10 and preferably formed integrally therewith, I provide the guard plate 15. As the operator places the work on the form below the said plate, the plate will prevent his fingers from extending up over the form in a position to be caught between the form and the platen. By the use of such an attachment, machines of this class will be rendered much safer and more rapid in operation.

Instead of having the guard plate formed integrally with the spring clip 10, I may form the guard plate from a separate piece of metal and I may solder or secure the said guard plate to the spring clip in any desired manner.

I am aware that other changes may be made in the construction of my safety attachment for end setting box-machines, by those who are skilled in the art, therefore, I do not wish

to be limited to the details of construction, which I have shown and described, but

What I do claim, and desire to secure by Letters Patent of the United States, is—

- 5 1. In an end setting box machine, the combination of a form adapted to receive the blank or partially formed box, and a guard plate or projection extending laterally from said form, substantially as described.
- 10 2. In an end setting box-machine, the combination of a reciprocating form, a spring clip adapted to hold the work to the side face of said form, and a guard plate or projection extending laterally from said spring clip, substantially as described.
- 15 3. In an end setting box-machine, the combination of a reciprocating form, spring clips for holding the work to the side faces of said

form, and a guard plate or projection extending laterally from each of said spring clips, 20 substantially as described.

4. In an end setting box-machine, the combination of a reciprocating form and spring clips secured to the rear face of said form, said clips being bent around to engage the 25 work upon the side faces of said form and having integral, laterally extending guard plates or projections, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing 30 witnesses.

ABRAM A. RHEUTAN.

Witnesses:

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PHILIP W. SOUTHGATE.