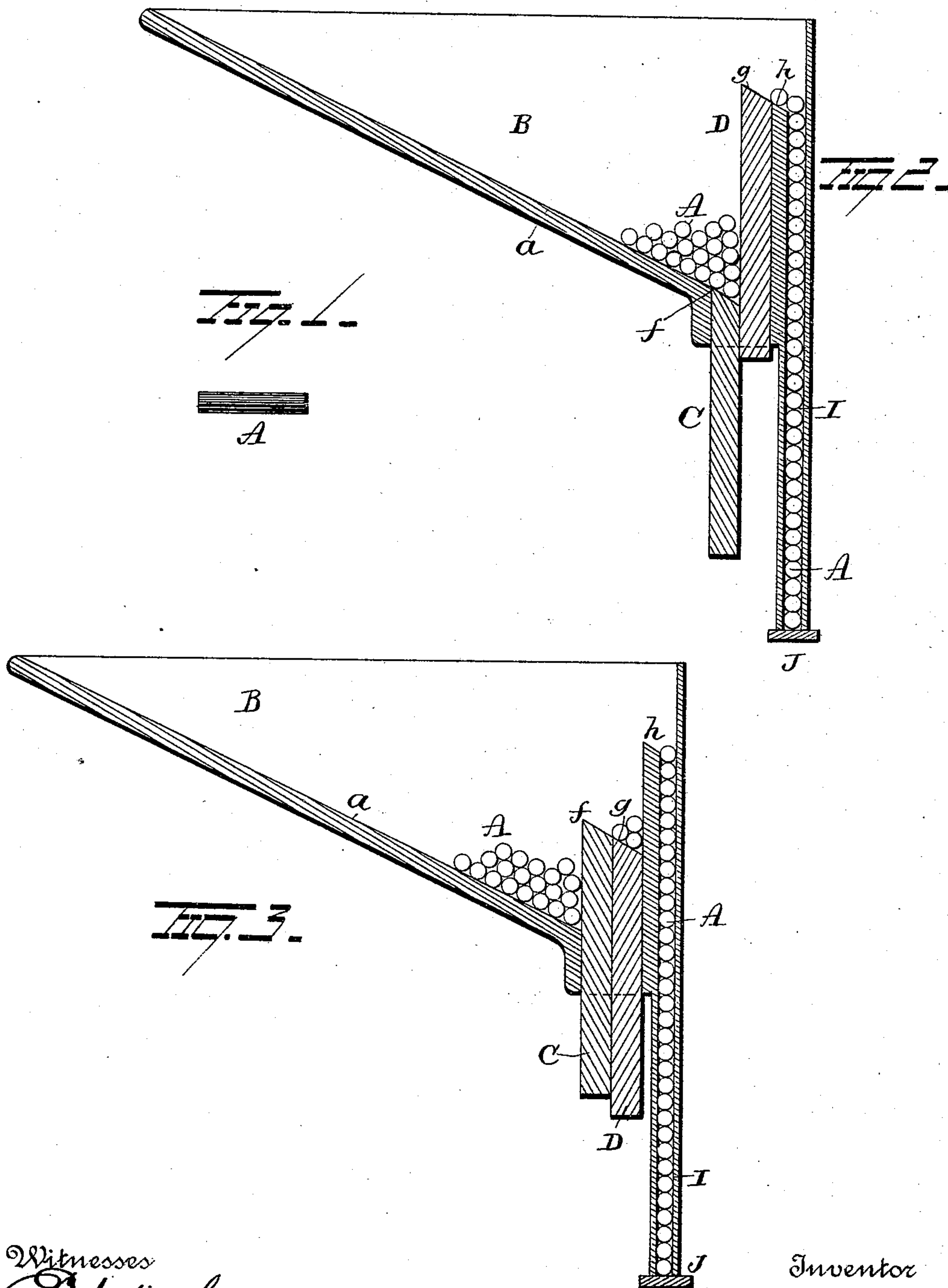


(No Model.)

W. W. MINER.  
BLANK FEEDING DEVICE.

No. 488,084.

Patented Dec. 13, 1892.



Witnesses  
*G. A. Nottingham*  
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# UNITED STATES PATENT OFFICE.

WILLIAM W. MINER, OF NEW HAVEN, ASSIGNOR TO THE NEW PROCESS  
NAIL COMPANY, OF TORRINGTON, CONNECTICUT.

## BLANK-FEEDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 488,084, dated December 13, 1892.

Application filed June 11, 1892. Serial No. 436,367. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM W. MINER, of New Haven, in the county of New Haven and State of Connecticut, have invented certain  
5 new and useful Improvements in Blank-Feeding Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to  
10 make and use the same.

My invention relates to an improvement in blank-feeding devices.

The object of the invention is to provide devices which will be simple and economical  
15 in construction and will be adapted to feed headless blanks to a heading, swaging, screw-threading, or other machine.

With these ends in view the invention consists in certain features of construction and  
20 combinations of parts, as will be hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figure 1 represents a blank, and Figs. 2 and 3 are views in vertical section of the feeding de-  
25 vice.

A represents a blank consisting of a short length of round wire. The object of the improved feeding device is to automatically feed such blanks to the guide or trough, from  
30 which they are fed to any suitable machine to be operated upon.

In Figs. 2 and 3, B represents a hopper having an inclined bottom *a* and inclined sides. (Not shown.)

35 C D represent two vertically-reciprocating feeding slides or bars. These slides are reciprocated in opposite directions, so that when one has reached the limit of its upward movement the other will have reached the  
40 limit of its downward movement. I have not illustrated devices for reciprocating the slides, as it will be evident that this may be done by many different arrangements of gearing or motion-transmitting devices.

45 In Fig. 2 slide C is represented in its lowest position and with the highest point of its beveled or inclined end *f* flush with or slightly

below the upper surface of the inclined bottom of the hopper. In this position the blanks A may roll onto the inclined end *f*,  
50 which may be wide enough to hold two, three, or more blanks. As the slide C rises, the slide D descends, and when they have been carried to the position illustrated in Fig. 2 the blanks on the inclined end *f* of slide C  
55 will roll off and onto the inclined end *g* of slide D. The slides will continue their movement until both slides have reached the limit of their movement, when they will be moved in the opposite direction, and the slide D will  
60 carry the blanks which were deposited on its inclined end *g* until the latter is moved to the position illustrated in Fig. 2, when the blanks will roll off from the end *g* onto the  
65 inclined shelf or support *h*, and from thence will roll into the vertical feed trough or guide I, from which the blanks are taken by any suitably-constructed jaws and fed to the machine to be operated upon.

J represents a view in cross-section of the  
70 shank of suitable gripping-jaws which serve as an abutment to retain the blanks in the feed trough or guide. The shank J reciprocates at right angles to the feed-trough and when moved to the limit of its travel in one  
75 direction allows one of the blanks to drop between a pair of jaws, by which it is grasped. When the shank is moved in the opposite direction, it serves to prevent the blanks remaining in the trough from dropping out.  
80 Should a blank lodge on the end of the slide C in an upright position, it will when the slide is raised fall back into the hopper. The slides reciprocate sufficiently rapid to keep  
85 the trough I always filled.

As my improvement may be used in connection with so many different kinds of machines, I would have it understood that I do not wish to limit its use to any special purpose.  
90

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with a hopper and feed-



trough, of two oppositely-reciprocating slides, one of which is arranged to descend into the blanks contained in the hopper, while the other is arranged to descend only to the  
5 limit of the upward movement of the lower slide and to receive the blank from the latter and carry it to and deliver it into the feed-trough, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM W. MINER.

Witnesses:

JOHN N. BROOKS,  
ALBERT SPERRY.