

(No Model.)

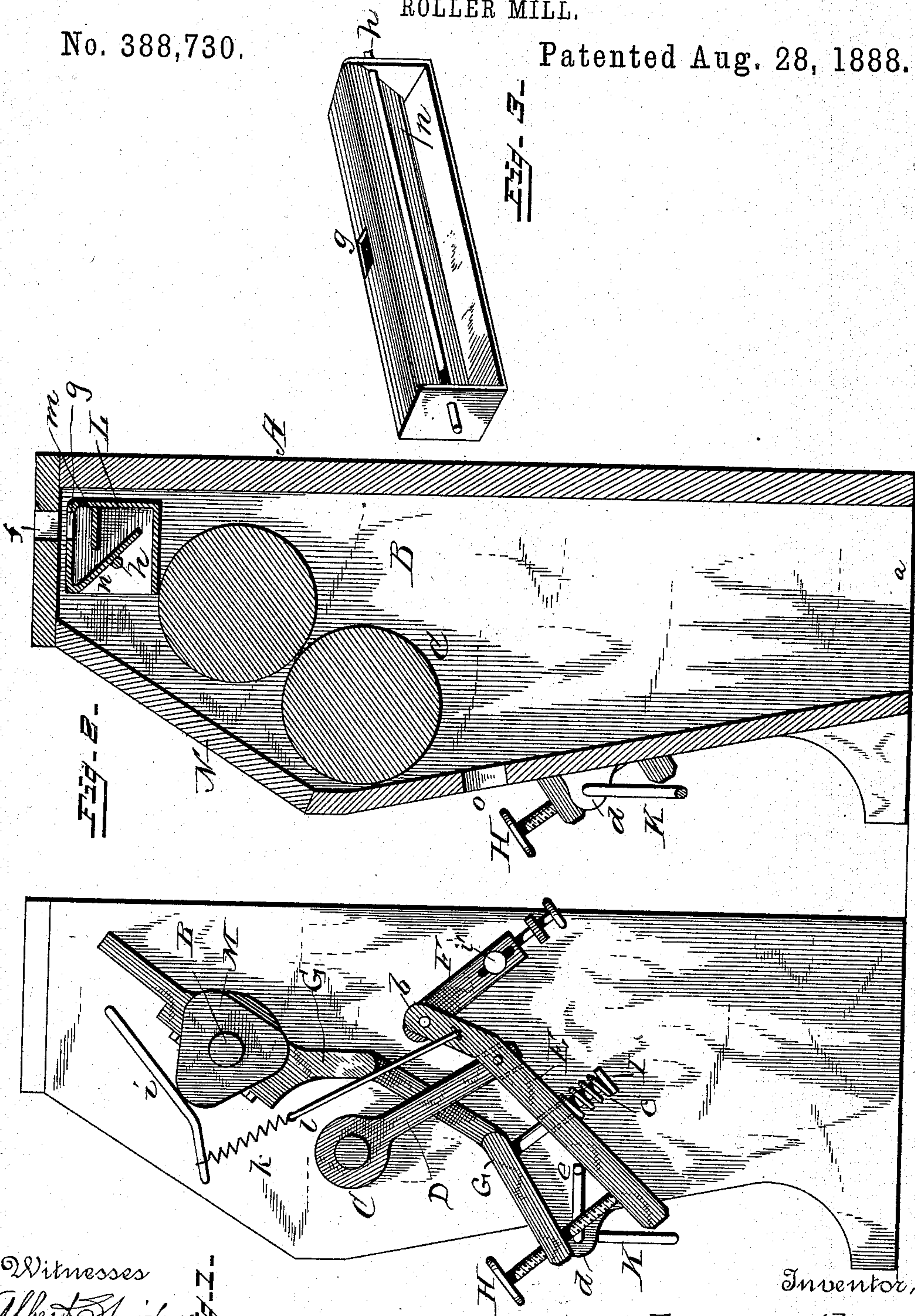
2 Sheets—Sheet 1.

A. J. SHONTZ.

ROLLER MILL.

No. 388,730.

Patented Aug. 28, 1888.



Witnesses  
Albert Speiden,  
E. H. Bond.

Inventor,  
Alpheus J. Shontz.  
By *T. W.* Attorney,  
Chas. N. Fowler.



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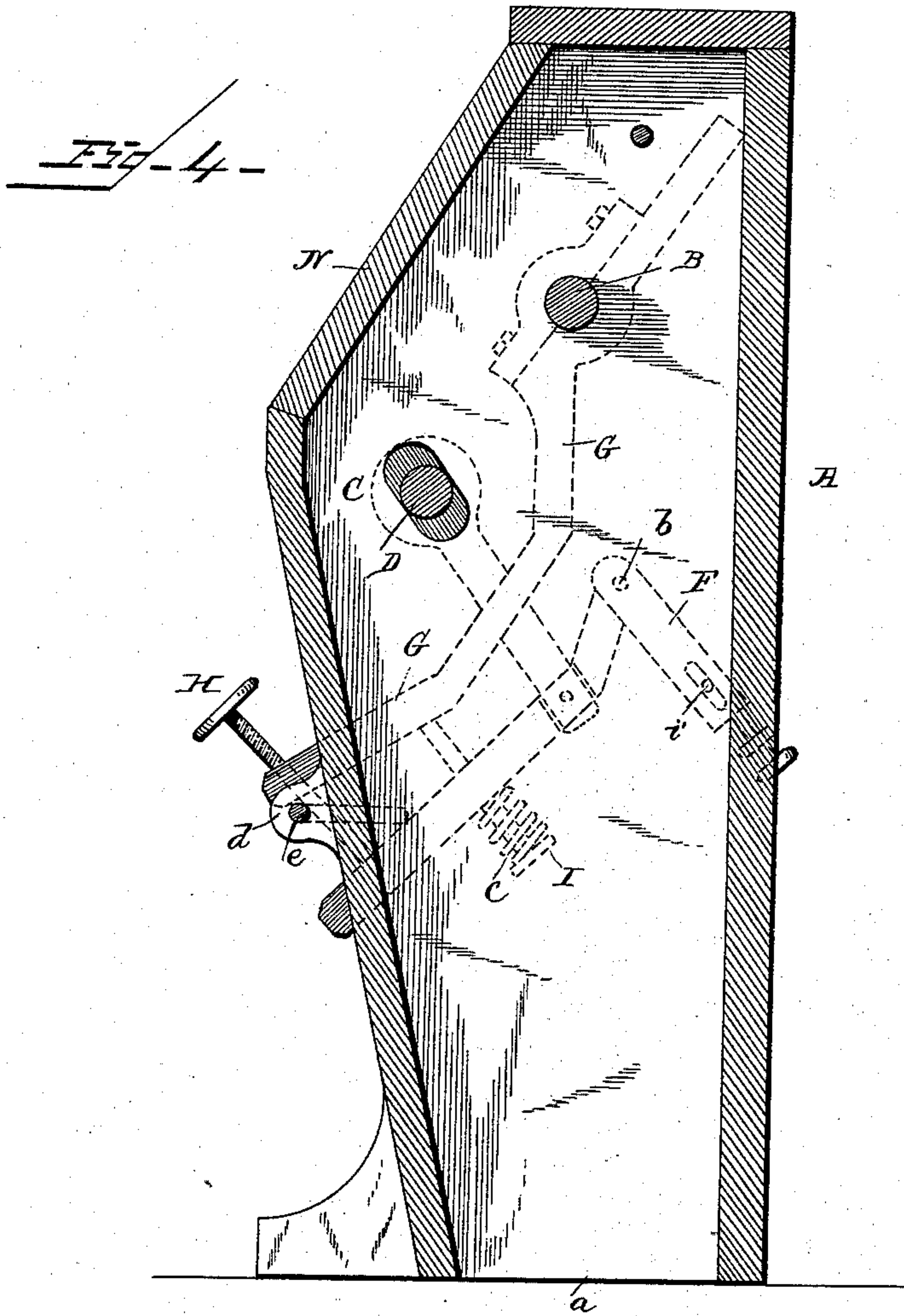
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# UNITED STATES PATENT OFFICE.

ALPHEUS J. SHONTZ, OF BLOOMVILLE, OHIO.

## ROLLER-MILL.

SPECIFICATION forming part of Letters Patent No. 388,730, dated August 28, 1888.

Application filed January 31, 1888. Serial No. 262,526. (No model.)

*To all whom it may concern:*

Be it known that I, ALPHEUS J. SHONTZ, a citizen of the United States, residing at Bloomville, in the county of Seneca and State of Ohio, have invented certain new and useful Improvements in Roller-Mills; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention relates to certain new and useful improvements in roller-mills; and it has for its object to simplify and cheapen and render more efficient in operation this class of machines. The novelty resides in the peculiar combinations and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly defined by the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is an end elevation of a mill constructed in accordance with my invention. Fig. 2 is a central vertical transverse section of the same. Fig. 3 is a perspective view of the feeder detached. Fig. 4 is a section taken in a vertical plane on the inside of the casing between the casing and the rollers, the rolls being omitted.

Referring now to the details of the drawings by letter, A designates a suitable case, provided with a discharge-opening, *a*, at the bottom. At the upper end of this case are journaled the rolls B C in suitable bearings. These rolls are arranged in the frame at an angle of about forty-five degrees, at which angle I have obtained the best results, but do not intend to limit myself to the exact angle at which the rolls are placed. The roller C has bearings in the bar D, the other end of which is pivotally connected with the bar E, one end of which is pivoted at *b* to the arm F, which is pivoted to the side of the case, as at *i'*, and is made adjustable in any suitable way, preferably by means of a slot and an adjusting-screw, as shown in Fig. 1. The roller B has a bearing in the bar G, secured to the side of the box, and provided at its lower end with the set-screw H, which is threaded into the bar G and bears on the free end of the bar E. I is a

tension-screw tapped through the bar G and through the bar E, and provided with a spring, *c*, arranged between the head of said screw and the bar E.

While the description thus far has been confined to one side of the machine, it will be understood that both sides are provided with the mechanism above described.

In order to operate the devices on both sides of the machine at once to throw the rolls apart at both ends at the same time, I provide the rock-bar K, suitably journaled in lugs *d*, as shown, and having its ends at *e* bearing on the bars E near their free ends.

At the upper end of the box is a feed-opening, *f*, communicating with the opening *g* in the feeding-box L, which is pivoted on the bar *h*, which projects through one side of the case and forms a shaker-bar, *i*, which is arranged in the path of and is designed to be operated by the cam M on the shaft of the roll B. The free end of this shaker-bar is connected with the bar E by means of the spring *k* and rod *l*. The feeding-box L is formed with the spreading-shelf *m* and the angular partition or spreader-board *n*, as shown in Fig. 2, the front side of the box being open, as shown in Figs. 2 and 3. The frontside of the case is provided with a hand-hole, *o*, as shown in Fig. 2.

In operation the material to be operated on is fed through the opening *f* in the top of the case, dropping through the opening *g* onto the spreader-shelf *m*, thence onto the partition *n*, and thence out through the open side of the box onto the upper roller. By this arrangement the grain is evenly distributed. The feeder-box receives an intermittent shaking movement through the medium of the shaker-bar *i* and cam M, the spring *k* serving to hold the shaker-bar down onto the cam, as will be readily understood.

The portion of the case in front of the rolls (indicated in the drawings by the letter N) is made removable, so that by removing said portion both rolls are exposed, so that the leveling-plate can be readily laid on the rolls and the rolls trained with ease.

What I claim as new is—

1. The combination, with the case and the rolls journaled therein at an angle, as described, of the feeder-box pivoted in said case



above the upper roll, the shaker-bar *i* on the pivot of said box, and the cam on the shaft of the upper roll and acting on said shaker-bar, substantially as described.

5 2. The combination, with the case and the roll B, journaled therein, of the movable rolls C, the bars D, forming bearings therefor, the bars E, pivotally connected with the case at one end and pivotally connected with the bars  
10 D, the bars G, a yielding connection between said bars G and E, and the rock-shaft K, journaled on said case, with its ends acting on the bars E, substantially as shown and described.

3. The combination, with the case, the rolls

B C, the bars D, and the bars G, of the bars E, pivotally connected with the said case and with the bars D, the set-screws H, tapped through the bars G and bearing on the bars E, the tension-screws I, and the springs *c* on said screws, substantially as shown and de- 20 scribed.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ALPHEUS J. SHONTZ.

Witnesses:

J. W. SNYDER,  
HENRY SHONTZ.