

(No Model.)

J. W. WILSON.
FEEDER FOR ROLLER MILLS.

No. 314,552.

Patented Mar. 24, 1885.

Fig. 1.

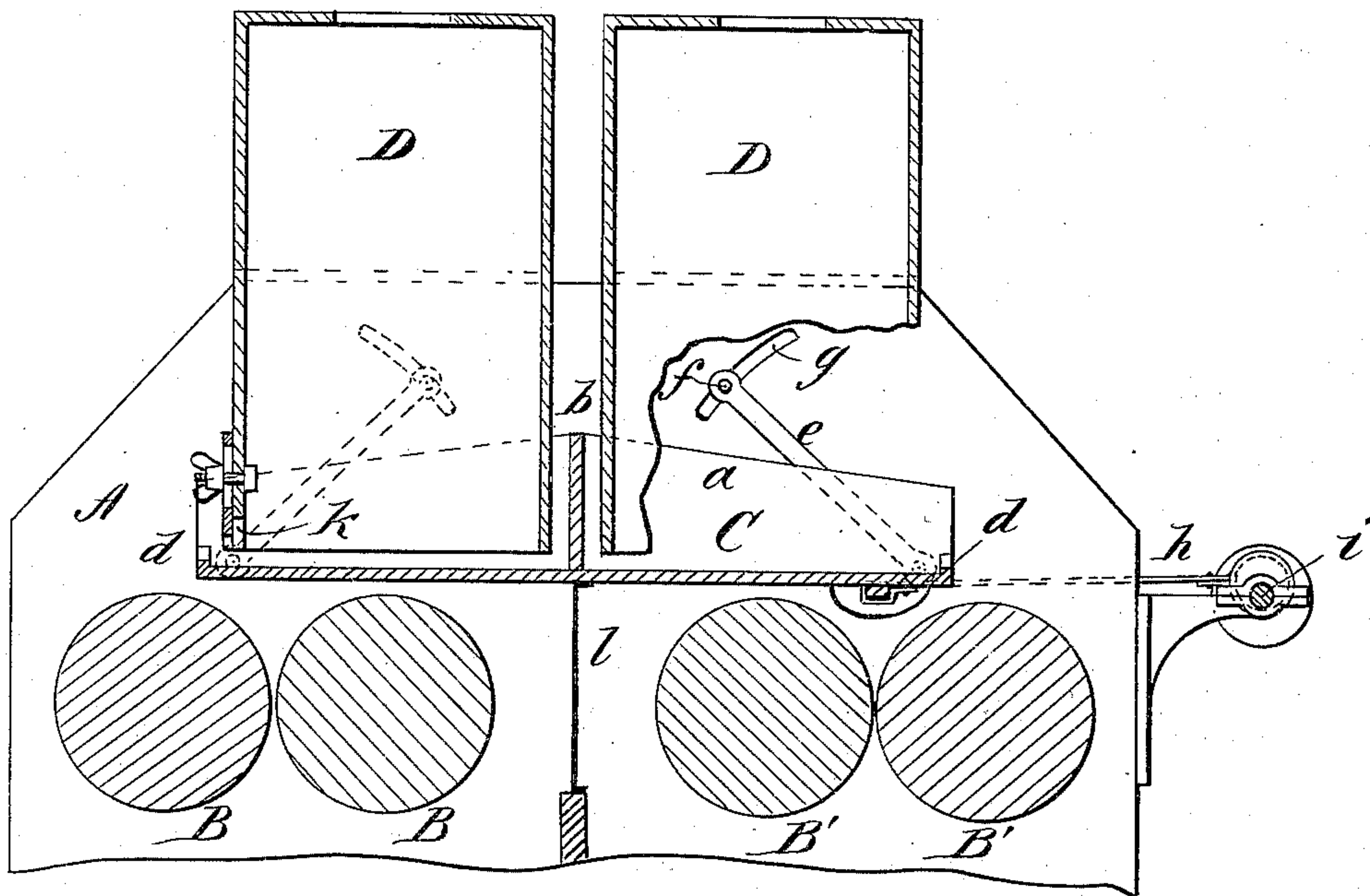
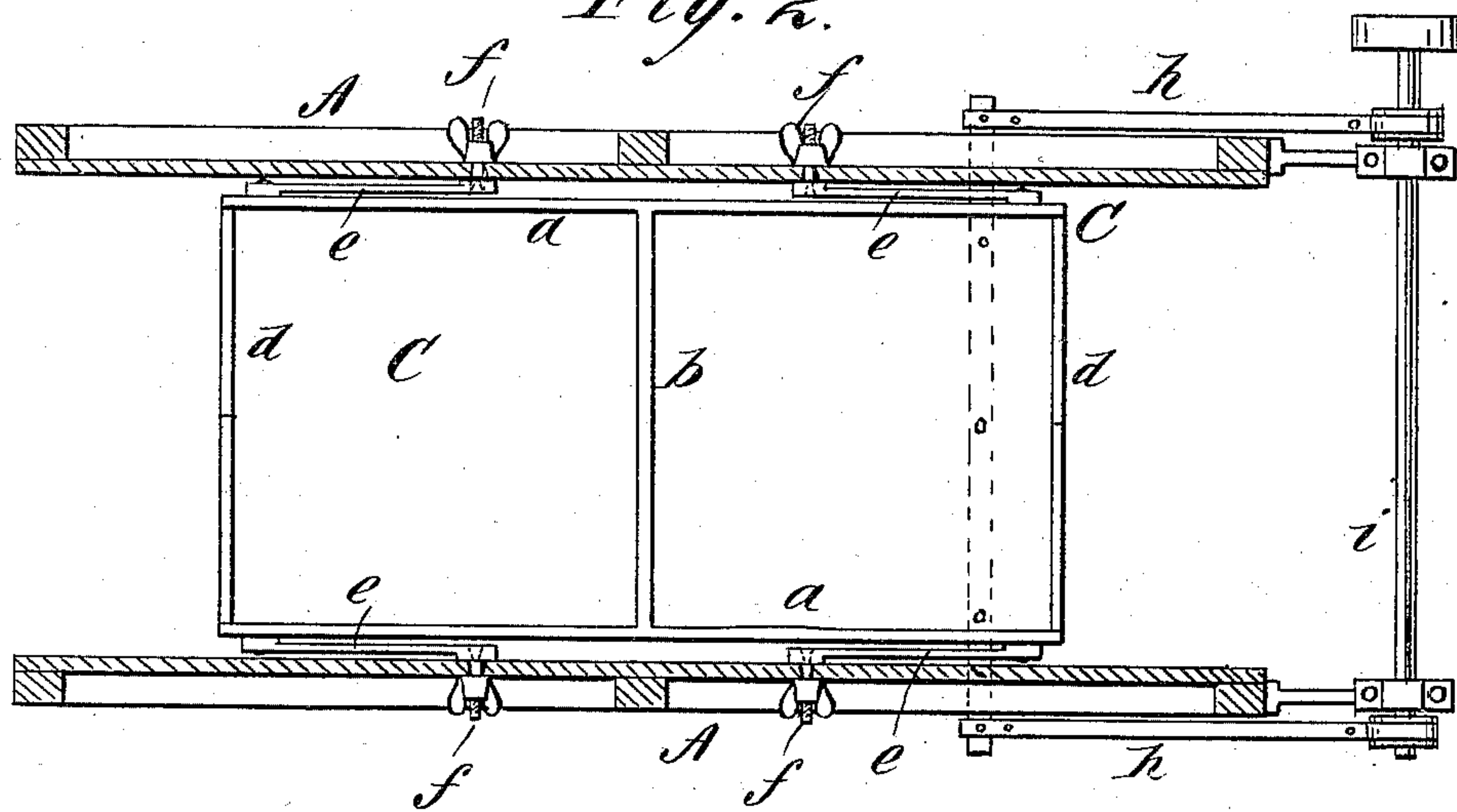


Fig. 2.



WITNESSES:

Donn Twitchell.
C. Sedgwick

INVENTOR:

J. W. Wilson
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOSEPH WILLIAM WILSON, OF BROOKVILLE, KANSAS.

FEEDER FOR ROLLER-MILLS.

SPECIFICATION forming part of Letters Patent No. 314,552, dated March 24, 1885.

Application filed August 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. WILSON, of Brookville, in the county of Saline and State of Kansas, have invented a new and Improved Feeder for Roller-Mills, of which the following is a full, clear, and exact description.

The object of my invention is to provide a feeder for double roller-mills, by which materials of differing grades can be separately supplied to the two sets of rollers without risk of mixture; and it consists in the double vibrating feeder hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a vertical section of the feeder as applied to two pairs of reducing-rolls, and Fig. 2 is a horizontal section of the feeder.

A represents the side wall, and B B' B' the reducing-rolls, of a double roller-mill of any usual character.

C is the shoe of the feeder, formed with raised sides *a* and a middle cross-partition, *b*, that divides the shoe into separate portions. At the outer or discharge ends of the shoe are raised lips or edges *d*. The shoe C is suspended by links *e*, which are pivoted to each end of the shoe and at each side, and are connected to the walls A by means of screw-pins and nuts at *f*, the pins passing through slots *g* in the wall, so as to allow adjustment. To journals at one end and at opposite sides of the shoe are connected rods *h* from eccentrics on a cross-shaft, *i*, which is to be rotated so as to vibrate the shoe. By adjusting the ends of links *e* in slots *g* the shoe is made to swing in an arc of greater or less radius when moved by the eccentric-rods, and consequently the rising and falling motion is increased or diminished, so that the discharge of material can be perfectly regulated by such adjustment. The bearings requiring to be oiled are also all

accessible without removal of any parts of the mill, and can therefore be oiled while the mill is running.

Above the shoe are fixed the feed-boxes D, with their open lower end terminating a short distance above the bottom of the shoe. The lower edges of the boxes at the sides toward the lips *d* are cut out and fitted with adjustable boards *k*, that regulate the escape of the material from the boxes.

From the under side of the shoe a strip, *l*, of rubber or other suitable material, is suspended so that it hangs down between the two pairs of rollers, and its lower edge is connected to a fixed partition. This rubber strip allows the vibration of the shoe while effecting perfect separation of the materials fed to the rollers.

In operation the materials to be reduced are supplied to boxes D, and by the vibrations of the shoe are caused to pass over the opposite edges of the shoe to the separate pairs of rollers. There is no possibility of the material becoming mixed before reduction by the rolls, and perfect work is thus insured, as each pair of rolls can be adjusted for the material fed to them.

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

1. The feeder for double roller-mills, consisting of boxes D, provided with adjustable boards *k*, and vibrating shoe C, having middle portion, *b*, between the boxes, the lower open ends of said boxes being disposed adjacent to the bottom of the vibrating shoe, substantially as shown and described.

2. The dividing-strip *l*, of flexible material, combined with the double feeding-shoe C and two pairs of rollers, B B', as and for the purpose specified.

JOSEPH WILLIAM WILSON.

Witnesses:

LOUIS H. NOTHSTEIN,
WALTER B. WILSON.