

(No Model.)

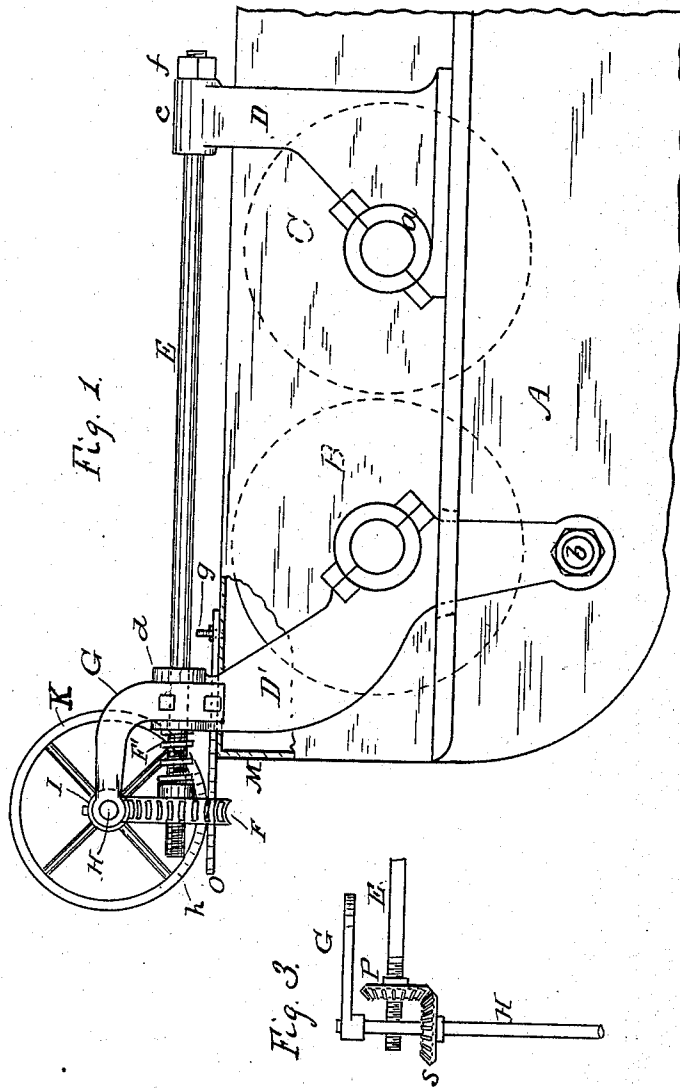
2 Sheets—Sheet 1.

I. H. EISENBERG.

ADJUSTING DEVICE FOR FLOURING MILL ROLLS.

No. 322,432.

Patented July 21, 1885.



WITNESSES

John J. Bordman  
Hamilton Ruddick

INVENTOR

Israel H. Eisenberg.

By his Attorney

Isaac L. Storey

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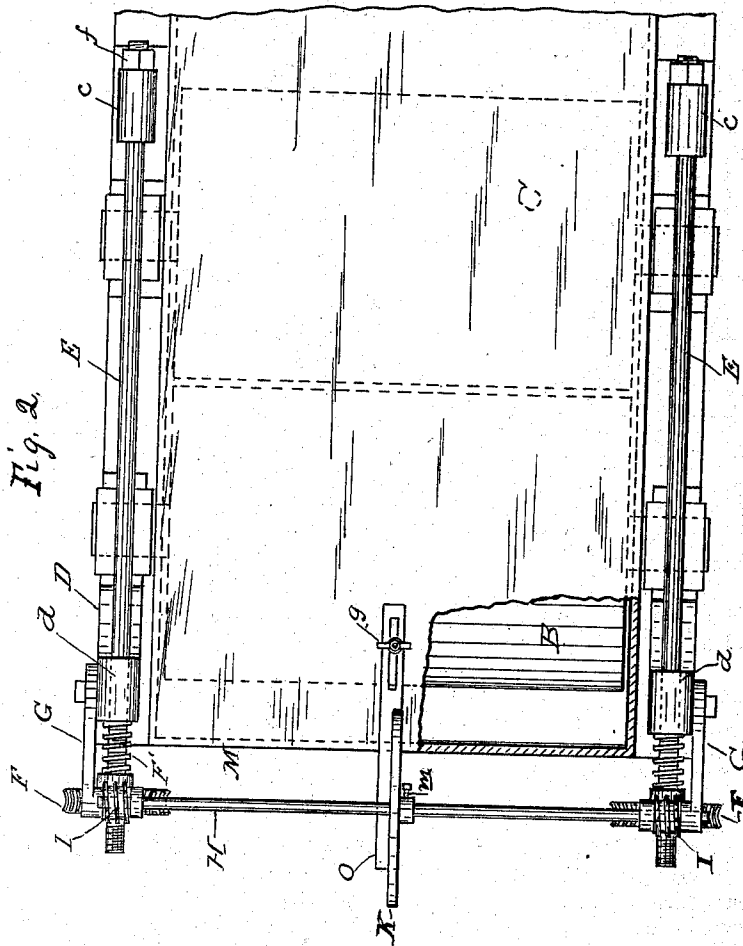
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*Israel H. Eisenberg*  
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*Isaac L. Storer*

# UNITED STATES PATENT OFFICE.

ISRAEL H. EISENBERG, OF NEW YORK, N. Y.

## ADJUSTING DEVICE FOR FLOURING-MILL ROLLS.

SPECIFICATION forming part of Letters Patent No. 322,432, dated July 21, 1885.

Application filed March 12, 1885. (No model.)

### *To all whom it may concern:*

Be it known that I, ISRAEL H. EISENBERG, a citizen of the United States of North America, and a resident of the city, county, and State of New York, have invented a new and useful Improvement in Adjusting Devices for Flouring-Mill Rolls, of which the following is a specification.

The object of this invention is to provide an improved device for setting or adjusting flouring-mill and other rolls.

The invention consists in the peculiar combinations and the construction and arrangement of parts, hereinafter more fully 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 all the figures.

Figure 1 is a side elevation, showing my improved devices applied to a roller-mill. Fig. 2 is a plan of the same. Fig. 3 shows a modification of a portion of the device.

In the drawings, A represents a portion of the mill-frame, and B C the outside or movable and inside or fixed rolls, respectively, the latter of which is journaled in fixed boxes *a*, supported on standards D, that are rigidly fixed with mill-frame and have sleeves *c* formed in their upper ends, while the former is journaled in rocker-arms D', whose lower ends are pivoted on the mill-frame, as shown at *b*, and whose upper ends are formed into sleeves *d*. On either side of the mill-frame tie-rods E are passed through the sleeves *c d*. Nuts *f* are turned on the rear ends of these rods E to bear against the rear ends of the sleeves *c* and prevent the forward movement of said rods; and on the screw-threaded front ends of said rods are fixed worm-gears F, while springs F' encircle said rods between the gears F and sleeves *d*, and by their tension, which is regulated by the movement of the gears F along the tie-rods, hold the movable roll B, through the medium of the arms D', at the desired distance from the inner roll, C. Standards G, secured on the rocker-arms D', support in suitable bearings a horizontal shaft, H, having a worm, I, on either end, which gears into a gear, F, and on the same shaft H is a hand-wheel, K, graduated on its rim, as shown at *h*, and provided with a set-screw, *m*. By

means of this wheel K the operator turns said shaft for the purpose of adjusting the outer roll, B. On turning said wheel K in one direction the worms I, engaged in the gears F, screw the latter inward on the threaded ends of the tie-rods E, and thereby the springs F' are compressed and synchronously force the arms D', and consequently the roll B through- out its whole length, inward, bringing the latter nearer to the fixed roll C, and on turning the wheel K in the opposite direction the tension of the springs F' is relaxed by the outward movement of the gears F, and the arms D' and movable roll B are then free to fall away from the roll C. On the top of the mill-box A, at the front thereof, a graduated slotted rod, O, is adjustably held by a thumb-screw and nut, *g*, and extends forward past the hand-wheel K and in close proximity thereto. When the rolls B C are set in contact with each other, the gage-rod O is adjusted and then fixed by the turning of its thumb-nut *g* with its graduations in exact correspondence with those on the hand-wheel K, which latter is then securely fixed in place by turning down the set-screw *m*. Then when the said wheel is turned for the purpose of adjusting the outside rod, B, at any desired distance from the roll C, the graduations on rod and wheel will exactly indicate the distance traveled by the roll B.

In Fig. 3 is shown a modification of a portion of my device, wherein bevel-gears P S, respectively, are substituted for worms I and worm-gears F.

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

1. The combination, with the standards D and the fixed roll C, journaled therein, of the pivoted rocker-arms D', the roll B, journaled therein, the standards G, secured to said rocker-arms, the shaft H, journaled in said standards, the rods E, gears F, and worms I, all constructed and arranged substantially as and for the purpose specified.

2. The combination, with the standards D, having the fixed roll C journaled therein and provided with sleeves *c*, of the pivoted rocker-arms D', the roll B, journaled therein, sleeves *d* on said rocker-arms, the rods E, passing through the sleeves *c d* and provided with nuts *f*, worm-gears F on said rods, springs F'

on said rods between the collars *d* and gears  
F, the shaft H, worms I, and hand-wheel K,  
all substantially as and for the purpose speci-  
fied.

- 5 3. The combination, with the adjustable  
graduated rod O, of the shaft H, the gradu-  
ated hand-wheel K, and means, substantially  
as described, for adjustably securing said hand-  
wheel to the shaft, substantially as and for the  
10 purpose specified.

In testimony that I claim the foregoing as  
my invention I have signed my name, in pres-  
ence of two witnesses, this 5th day of Febru-  
ary, 1885.

ISRAEL H. EISENBERG.

Witnesses:

JACOB J. STORER,

PHILIP B. WHELPLEY.