

H. C. BYRAM.  
Mill-Stone Balance.

No. 160,304.

Patented March 2, 1875.

Fig. 1.

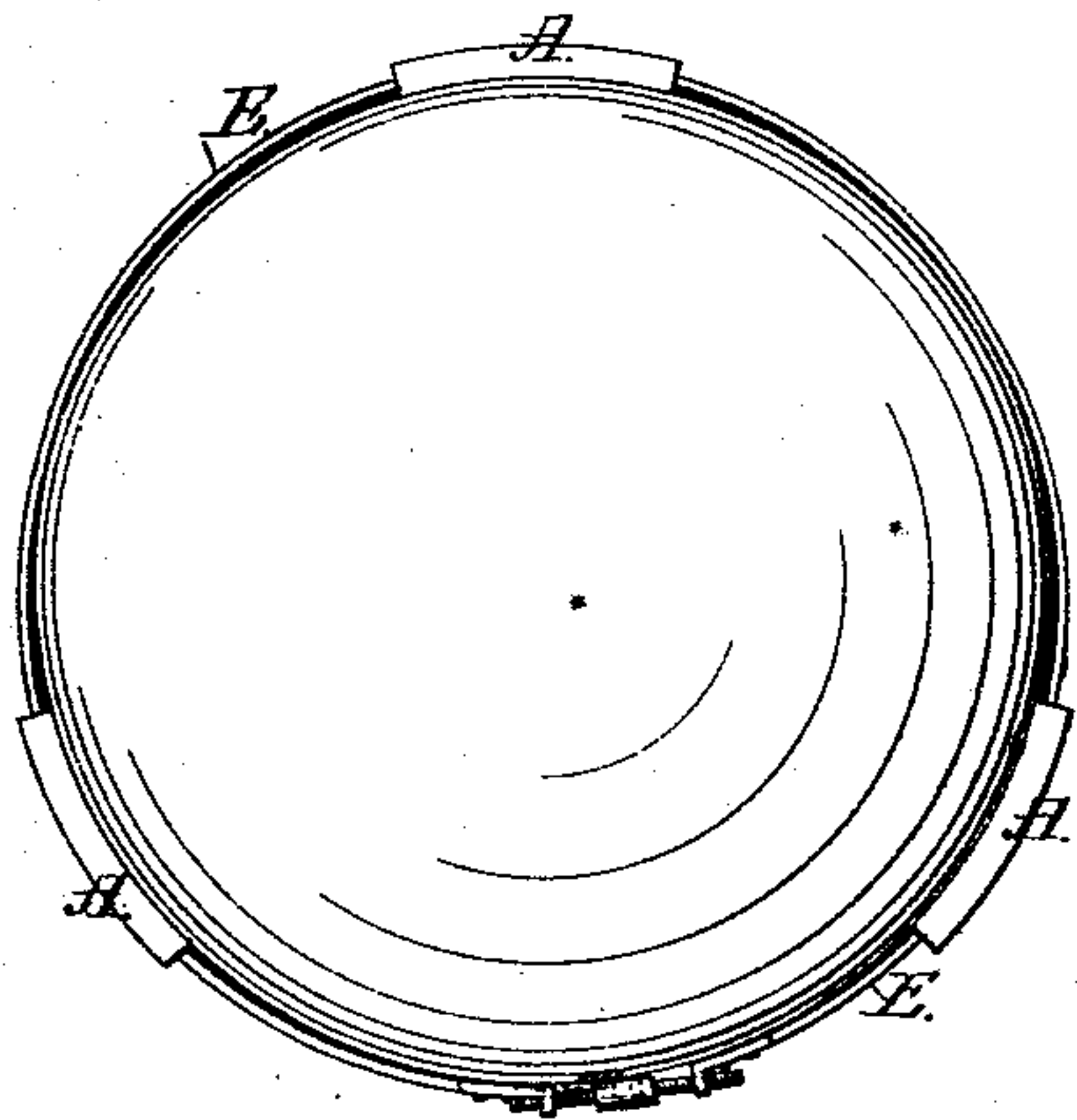


Fig. 2.

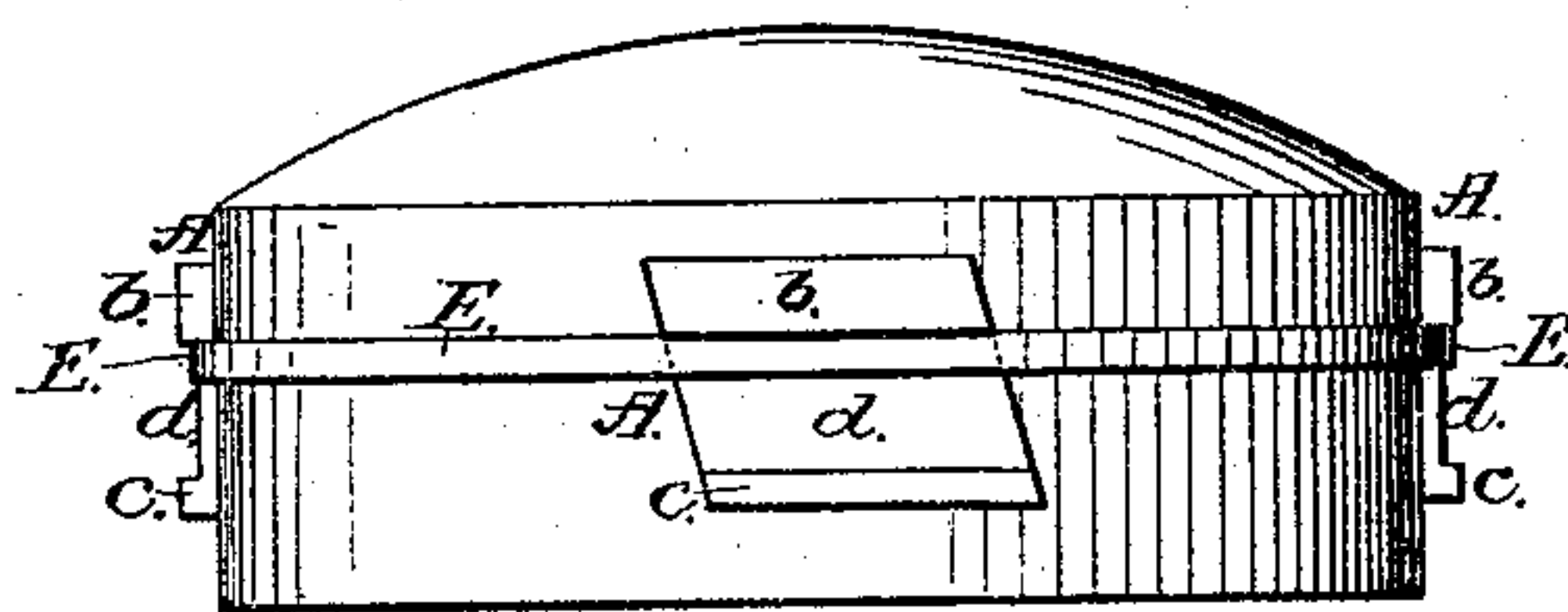


Fig. 3.

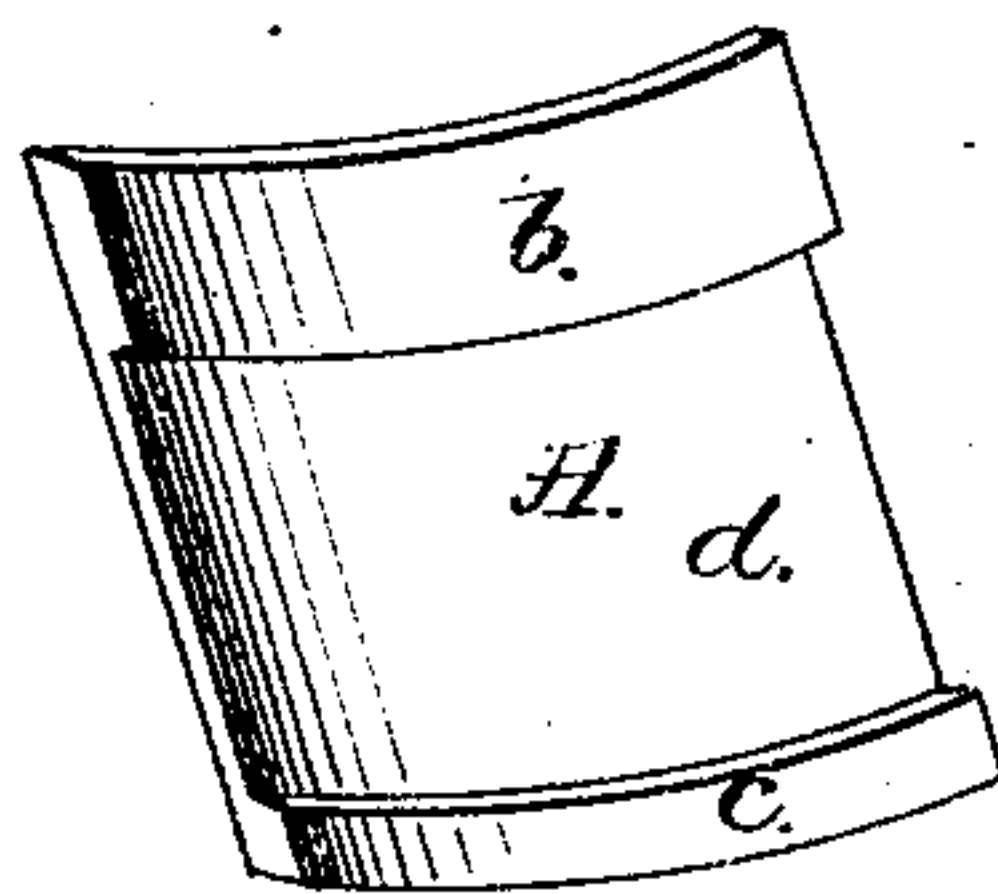


Fig. 4.



Witnesses:

*W. A. Bartlett*

Inventor

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# UNITED STATES PATENT OFFICE.

HENRY C. BYRAM, OF DOVER, NEW JERSEY.

## IMPROVEMENT IN MILLSTONE-BALANCES.

Specification forming part of Letters Patent No. **160,304**, dated March 2, 1875; application filed November 19, 1874.

*To all whom it may concern:*

Be it known that I, HENRY C. BYRAM, of Dover, county of Morris, State of New Jersey, have invented a new and Improved Millstone-Balance, of which the following is a specification:

Figure 1 is a top view of the improved millstone-balance, showing mode of adjusting the weights. Fig. 2 is a side view of the same. Fig. 3 is a front view of the weight detached. Fig. 4 is a side view of the same in sections.

The object of my invention is to furnish a weight which shall be convenient of adjustment and capable of performing the twofold function of a weight and a means of preventing the rise of dust.

To accomplish this I construct my weight in the following manner:

Referring to the accompanying drawings, A is the weight, constructed on my improved plan, curved to fit the stone, and having a flange or projection on the top and bottom of its outside face. It is made of a rhomboidal form, to present sloping edges forward and backward when affixed to the stone. *b* is one flange of the weight. *c* is the other flange. *d* is the thin body of the weight. One flange is made much wider or thicker than the other, for the purpose of changing the position of the center of gravity in adjusting the weights. Thus, when the wide flange is put above the confining-band E, the center of gravity of the stone is much higher than when the weights are reversed.

The other advantage of my construction is attained by making the weights of a rhomboid shape, so that the side which is forward in the revolution of the stone shall slant from front to rear, no matter which end of the weight may be uppermost. This construction is for the purpose of giving a downward draft to the current of air generated by the revolution of the stone, which air-current carries the flour and dust which arise in grinding down with it, and keeps them confined at the bottom of the stone, or compels their escape with the flour at the proper discharge.

The weights are held in place on the stone by the usual confining-band, which band may be adjustable by a right-and-left screw, or in any other convenient manner.

I prefer to leave the body *d* of the weight entirely plain, so that it may be adjusted to any desired height by sliding up or down, which may be effected by slackening the band.

Weights have been made with grooves running parallel to the band, so that the band should rest in one of the grooves. This differs from my invention, as it will not permit the nice adjustment attained by the use of my weight.

The angle which the front of my weight presents may vary. Probably about forty-five degrees from the perpendicular gives the best results; but I do not wish to confine myself to any particular angle, only so that the front slopes enough to give a downward draft.

I employ any number of weights that may be necessary in adjusting the balance of the stone; usually three will be enough.

I may omit one flange from my weight in some cases.

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

1. A millstone-balance weight constructed with a projecting flange at top and bottom, one larger than the other, whereby by reversing the weight the center of gravity of the stone will be changed, substantially in the manner described.

2. A millstone-balance weight constructed in rhomboidal shape, the side which is forward in the revolution of the stone slanting from front to rear, for giving a downward draft to the current of air, substantially as and for the purpose specified.

HENRY C. BYRAM.

Witnesses:

M. GARDNER,  
W. A. BARTLETT.