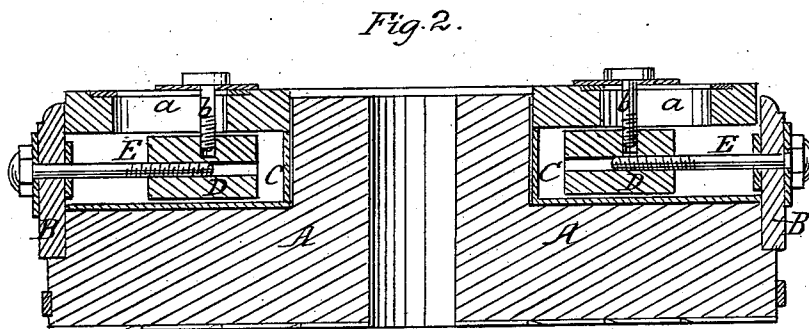
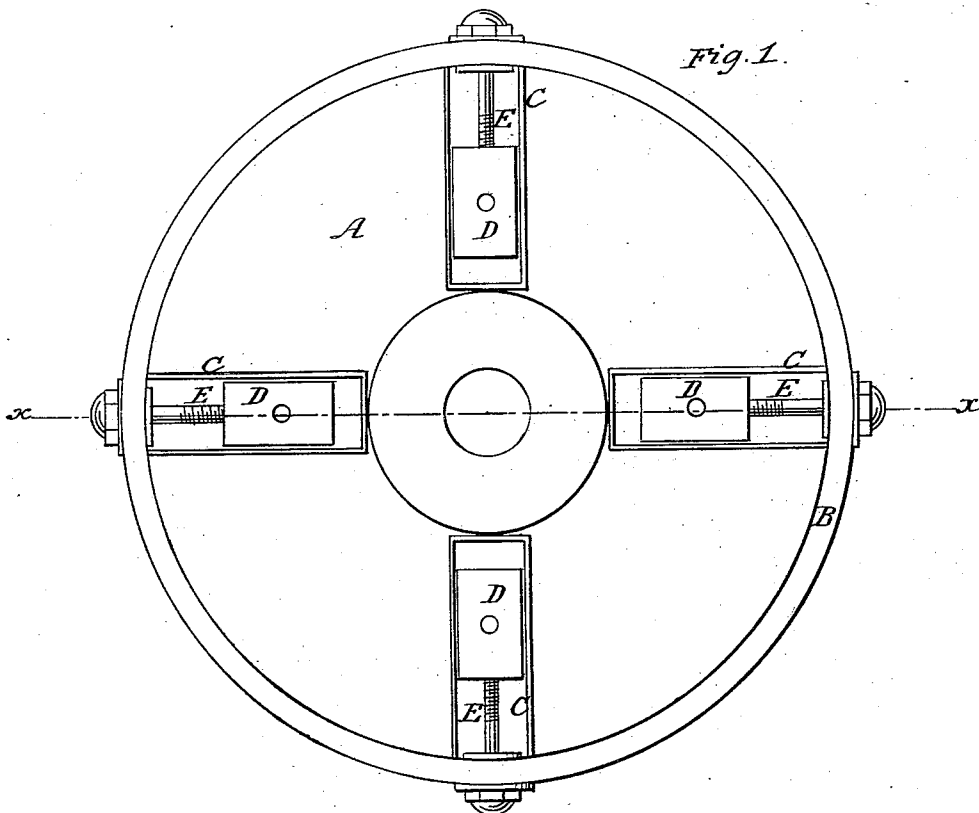


W. C. BENN.
Millstone Balance.

No. 82,278.

Patented Sept. 22, 1868.



Witnesses:
Geo. H. Stone
J. L. Brown.

Inventor:
Deury & Co, Atlys
for W. C. Benn.

United States Patent Office.

WALTER C. BENN, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO HIMSELF, LIVINGSTON L. BAKER, AND ROBERT HAMILTON, OF THE SAME PLACE.

Letters Patent No. 82,278, dated September 22, 1868.

IMPROVED MILLSTONE-BALANCE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WALTER C. BENN, of the city and county of San Francisco, State of California, have invented an Improved Device for Balancing Millstones; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

The nature of my invention is to provide an improved mode of balancing millstones, in order to avoid the tedious and slow process now employed, of cutting holes in the stone on the light side, and filling them with lead, in order to obtain a perfect standing and running balance. This I accomplish by placing, opposite the driving-point, in the centre of the stone, four weights. These weights are placed opposite each other at the four quarters of the stone, and slide in ways, along which they are moved by set-screws, operated from the outside, on the verge or circumference of the band. The balance is obtained by moving these weights, by means of the screws, towards or from the centre, and up or down, as necessary, until the true balance is obtained.

To more fully describe my invention, reference is had to the accompanying drawings, forming a part of this specification, of which—

Figure 1 is a plan of my device, showing the weights.

Figure 2 is a side sectional elevation through $x x$, fig. 1.

A represents a millstone, set in the circular band B, which forms above the stone a wide flange entirely around it. Inside of this the stone is placed, and firmly secured by the usual iron bands. Between the backing and the stone are placed ways C C C C, opposite each other, in the four quarters of the stone. Weights D D D D, made of any heavy substance, are placed inside of these ways, and are moved towards and from the centre by means of the set-screws E E E E, which pass through a slot in the flange of the band B, and into the weights, having the end which is outside of the band furnished with a suitable nut and washer. This slot is sufficiently long to allow the screws to move up and down. By turning these screws, the weights may be adjusted, so as to change the centre or point of balance as desired.

To regulate the running balance, I leave, in the backing of the stone, slots $a a a a$, through which screws $b b$, &c., penetrate to the weights, entering their top, and by means of which they may be raised or lowered until the balance is perfect. These slots are made of sufficient length to allow the weights to be moved to and from the centre.

It is found that after a standing balance is put at the top of the stone, the running balance will often be imperfect, in which case, with my device, the running and standing balance can be regulated by simply moving the weights in and out, or up and down, so as to change the centre to the point desired.

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

The combination of the adjustable weights D D, and their ways C C, together with the operating-screws E E, and the elevating-screws $b b$, or an equivalent device, when used for balancing millstones, the whole constructed and arranged substantially as herein described.

In witness whereof, I have hereunto set my hand and seal.

WALTER C. BENN. [L. S.]

Witnesses:

J. L. BOONE,

C. W. M. SMITH.