

J. FOLLER.

Detachable Balancing Beams for Weighing-Scales.

No. 147,383.

Patented Feb. 10, 1874.

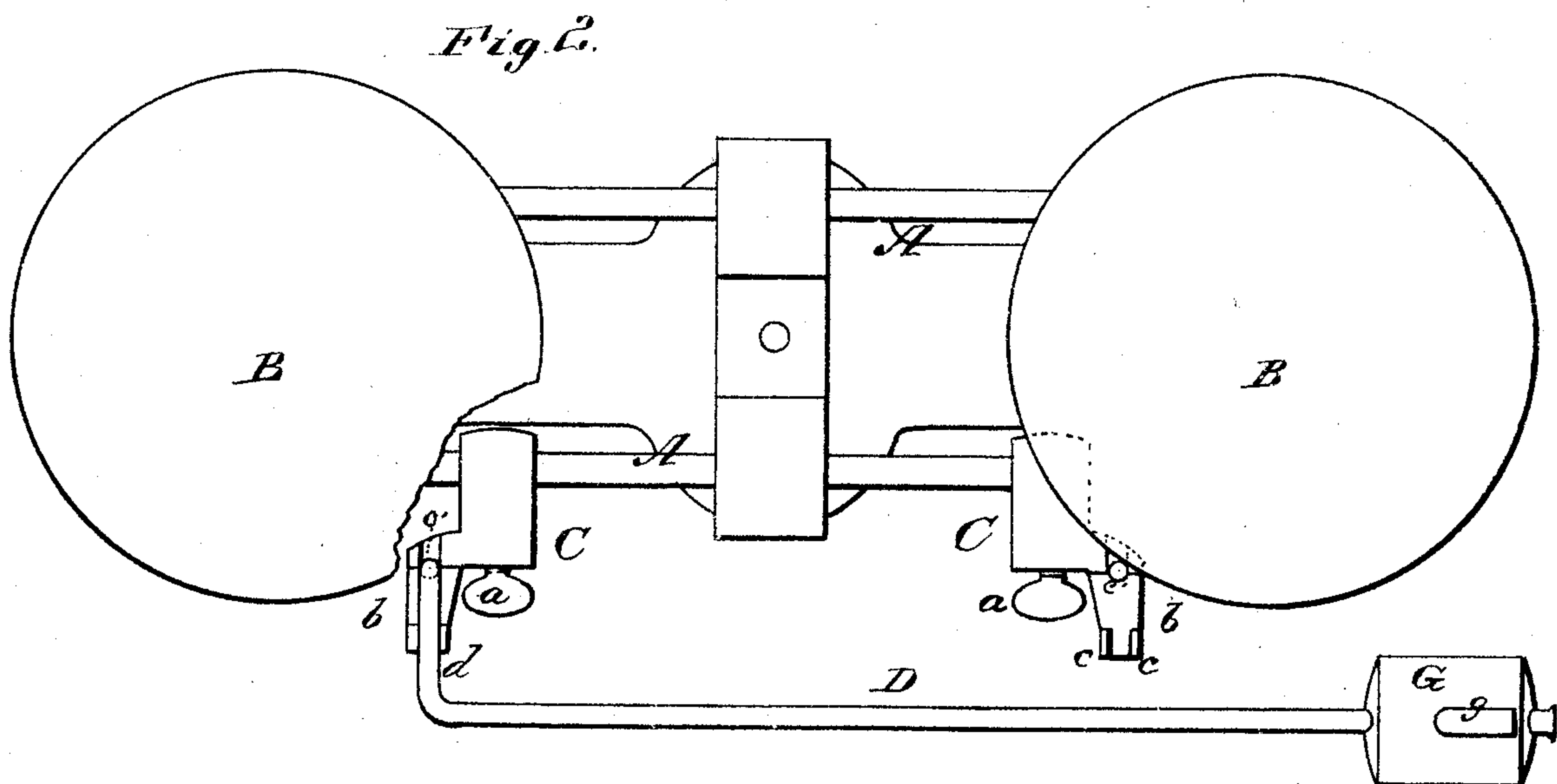
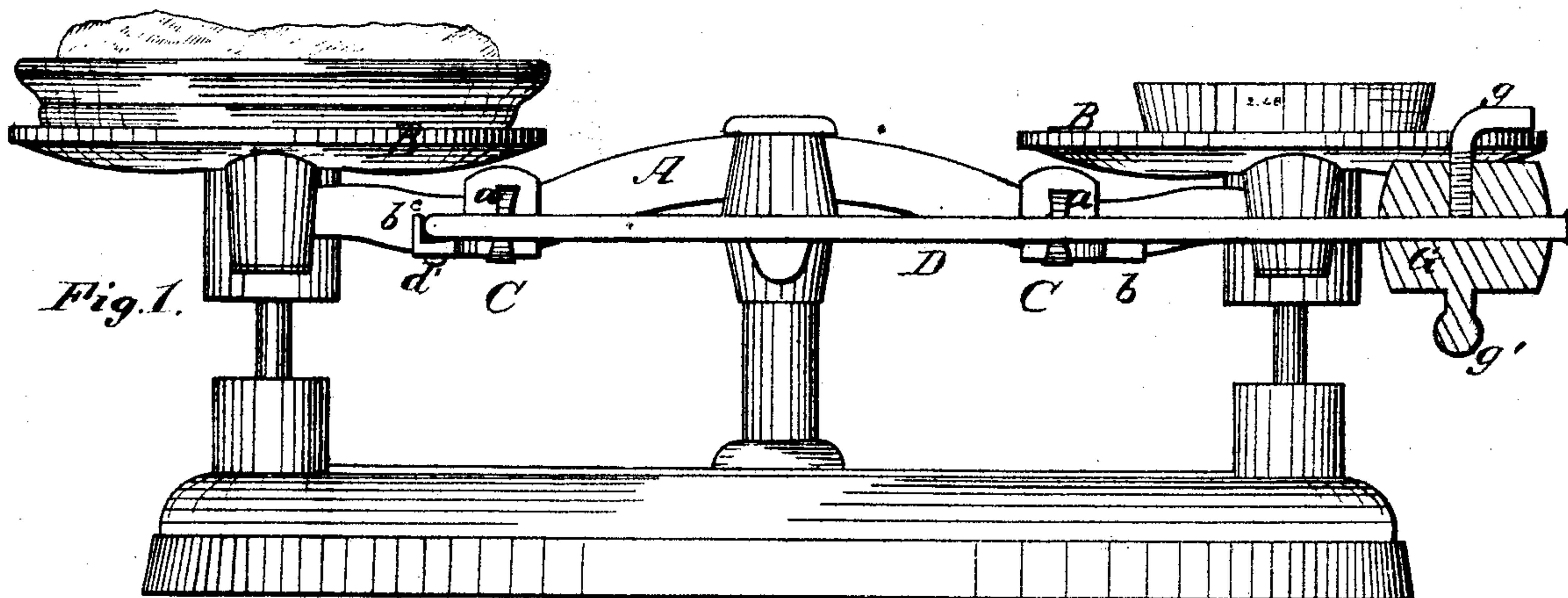


Fig. 3.

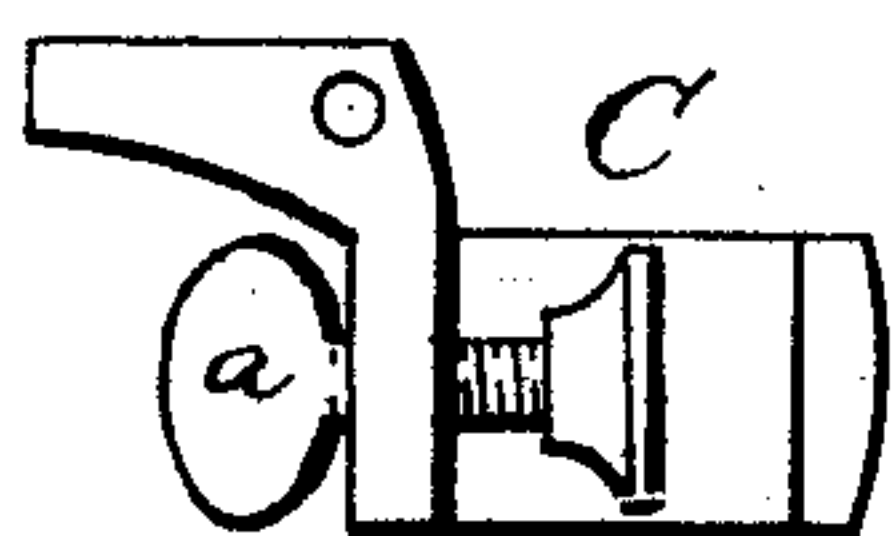


Fig. 4.

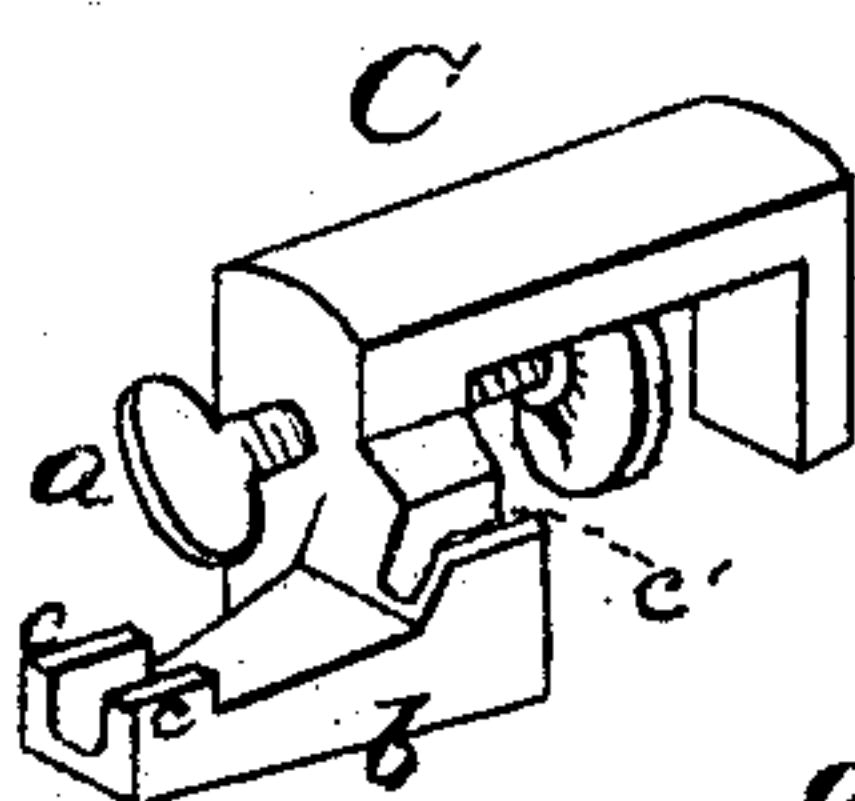
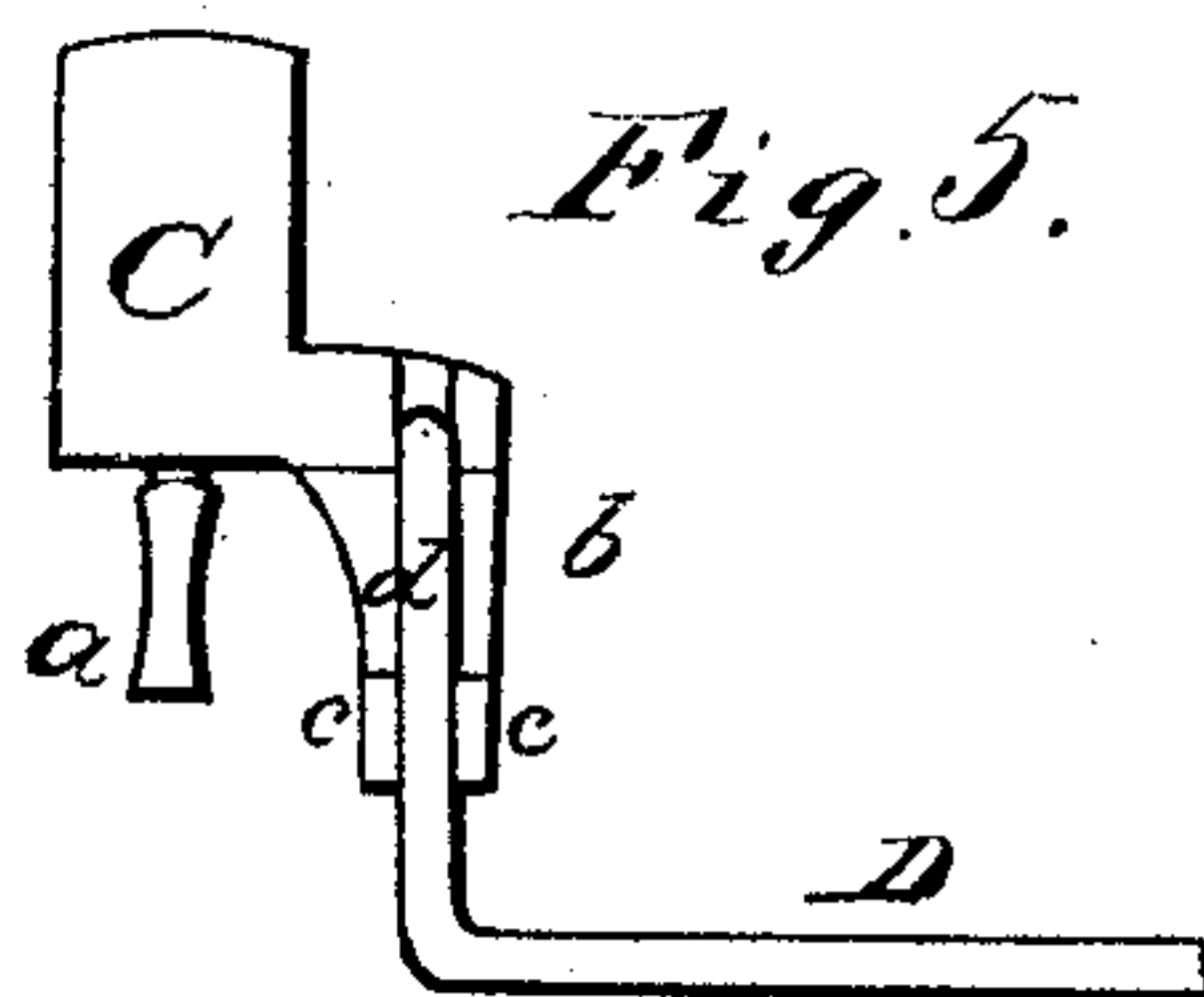


Fig. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN FOLLER, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN DETACHABLE BALANCING-BEAMS FOR WEIGHING-SCALES.

Specification forming part of Letters Patent No. **147,383**, dated February 10, 1874; application filed December 17, 1873.

To all whom it may concern:

Be it known that I, JOHN FOLLER, of Washington, in the county of Washington and District of Columbia, have invented a new and valuable Improvement in Weighing-Scales; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation 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.

Figure 1 of the drawings is a representation of a side elevation of my scales. Fig. 2 is a plan view of the same. Figs. 3, 4, and 5 are detail views.

This invention has relation to weighing-scales which are especially designed for grocers, who are frequently required to weigh lard, butter, and other substances in dishes and other vessels brought to the store by the customers.

The object of my invention is to combine, with weighing-scales, a detachable arm having a movable weight applied to it, by adjusting which weight a dish or other vessel can be quickly balanced on the scales previous to weighing in it the article purchased, as will be hereinafter explained.

The following is a description of my improvement:

In the annexed drawings, I have represented my invention applied to one of the beams A of a well-known kind of weighing-scales, having dishes B B on both ends of the beams. C C represent two clamps, which are provided with tightening-screws *a a*, and applied to one of the scale-beams A on opposite sides of the knife-edge bearings, so that the scale is exactly balanced. Each clamp C has a holding device, *b*, formed on it, which presents two ears, *c c*, at one end, and a vertical perforation, *c'*, at the other end. Instead of having the holders *b* formed on removable clamps C, as described, they may be constructed directly on one of the scale-beams A while casting these beams, but for scale-beams already

manufactured clamping devices or their equivalents will be used, and I prefer those described. D represents a rod of any suitable length, one end of which is bent so as to form two right-angular portions, *d d'*. When this rod is adjusted into one or the other of its holders *b*, its right-angular portion *d* lies between the ears *c c*, and its shorter portion *d'* is received into the vertical hole *c'*, through the holder. The rod D is thus firmly supported in a line parallel to the scale-beams, and it can be readily removed from and applied to its holder. G designates a weight, which is applied on the rod D, so as to slide thereon, and *g* is a screw, with a cranked handle, for rigidly securing the said weight at any desired point on the rod D. If this rod D be round, the adjustable weight G may be provided with a gravitating weight, *g'*, which will keep the crank-screw *g* always upmost.

It will be seen from the above description that when a plate or other vessel is put upon one of the dishes B it can be quickly balanced by adjusting the weight G on its rod D, after which a substance can be weighed in the usual manner. I thus avoid the great inconvenience and loss of time hitherto occasioned by having to weigh the vessels before weighing the substances put into them.

By using two holders, *b*, and having the rod D removable, this rod can be adjusted into either one of these holders, as circumstances may require.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of a clamp, C, a holding device, *b*, and a rod, D, having an adjustable balancing-weight on it, substantially as described.

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

JOHN FOLLER.

Witnesses:

D. D. KANE,
GEORGE E. UPHAM.