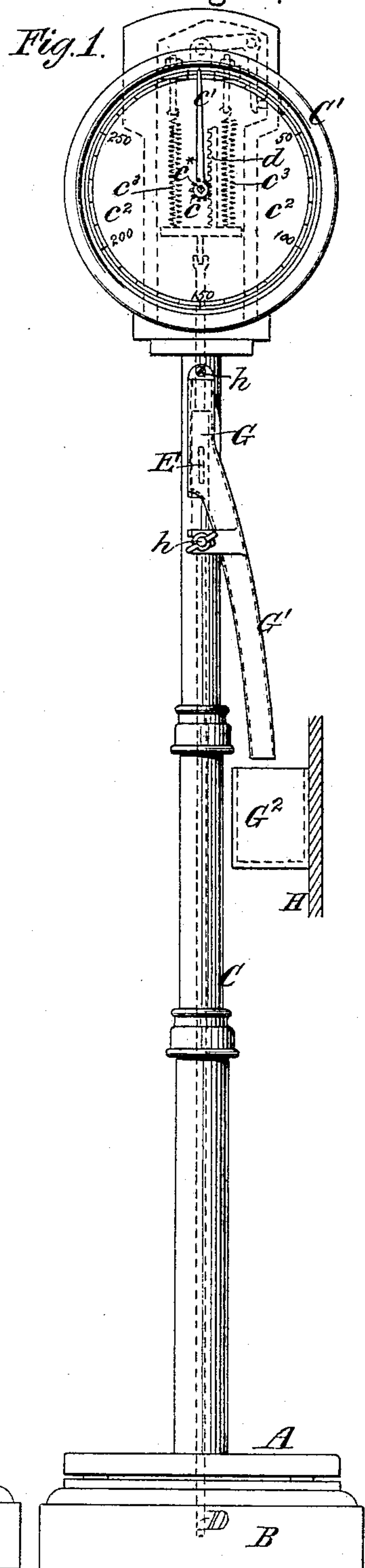
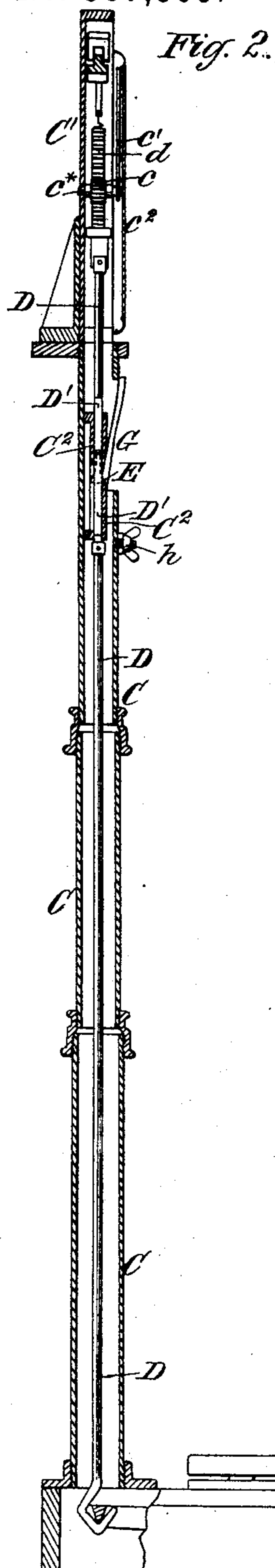


J. MOSS.

COIN CONTROLLED WEIGHING SCALE.

No. 387,565.

Patented Aug. 7, 1888.



Witnesses:  
O. Sundgren.  
Emil Herter.

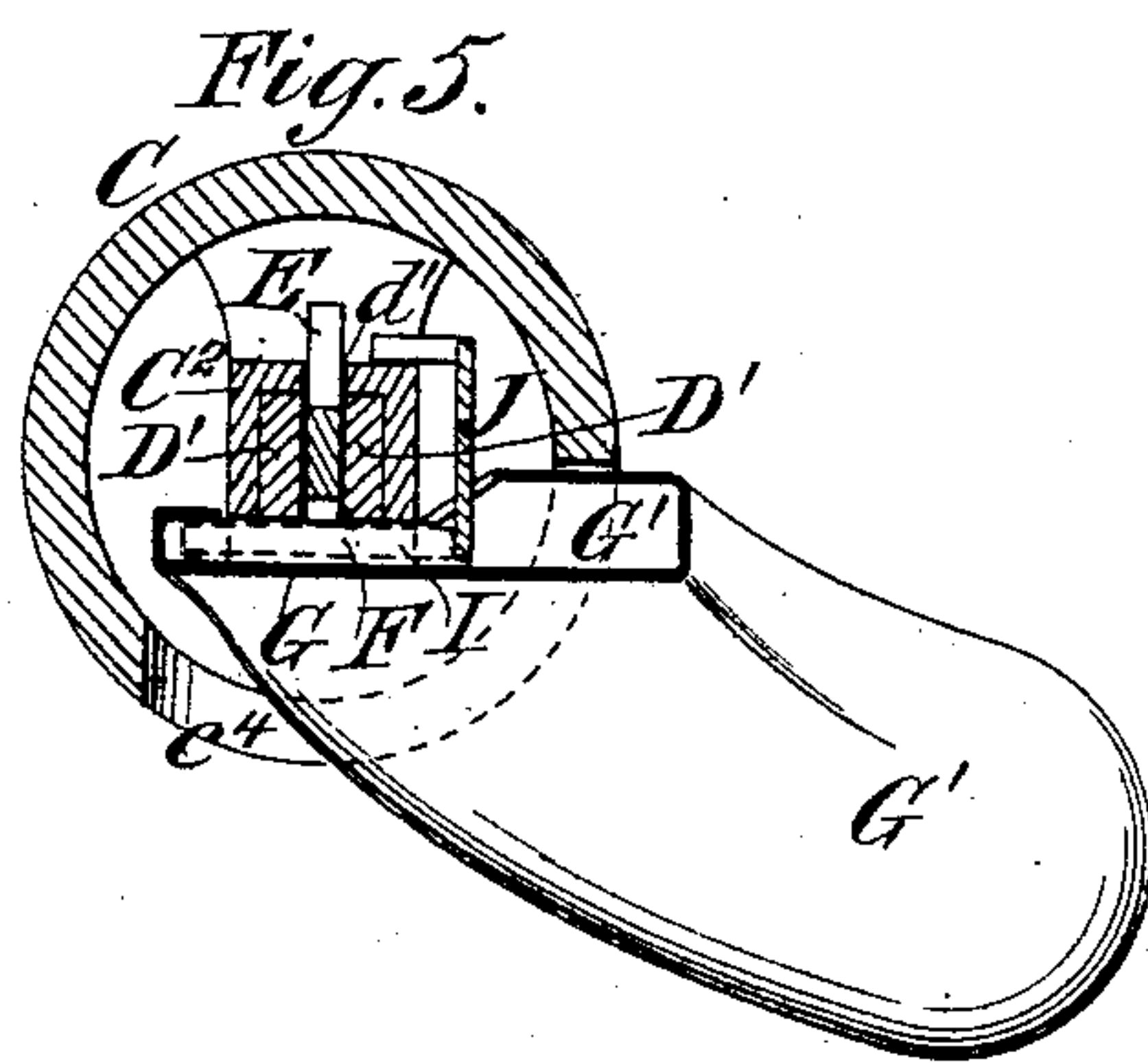
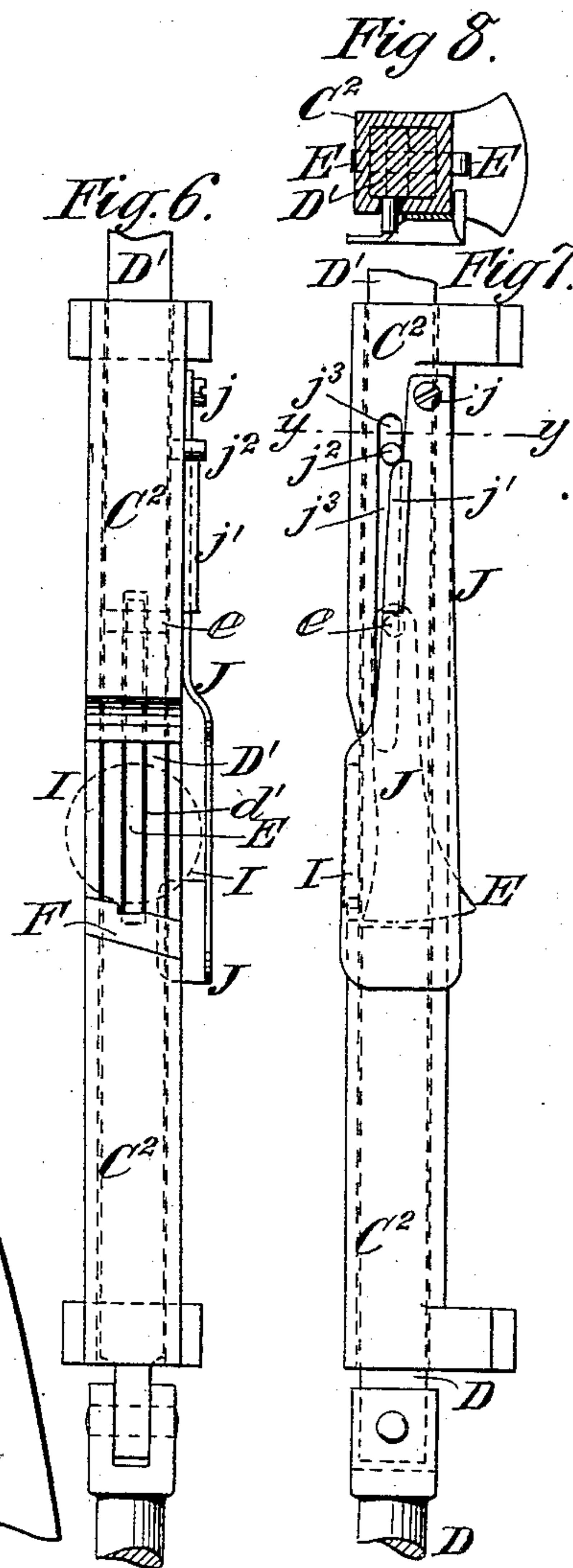
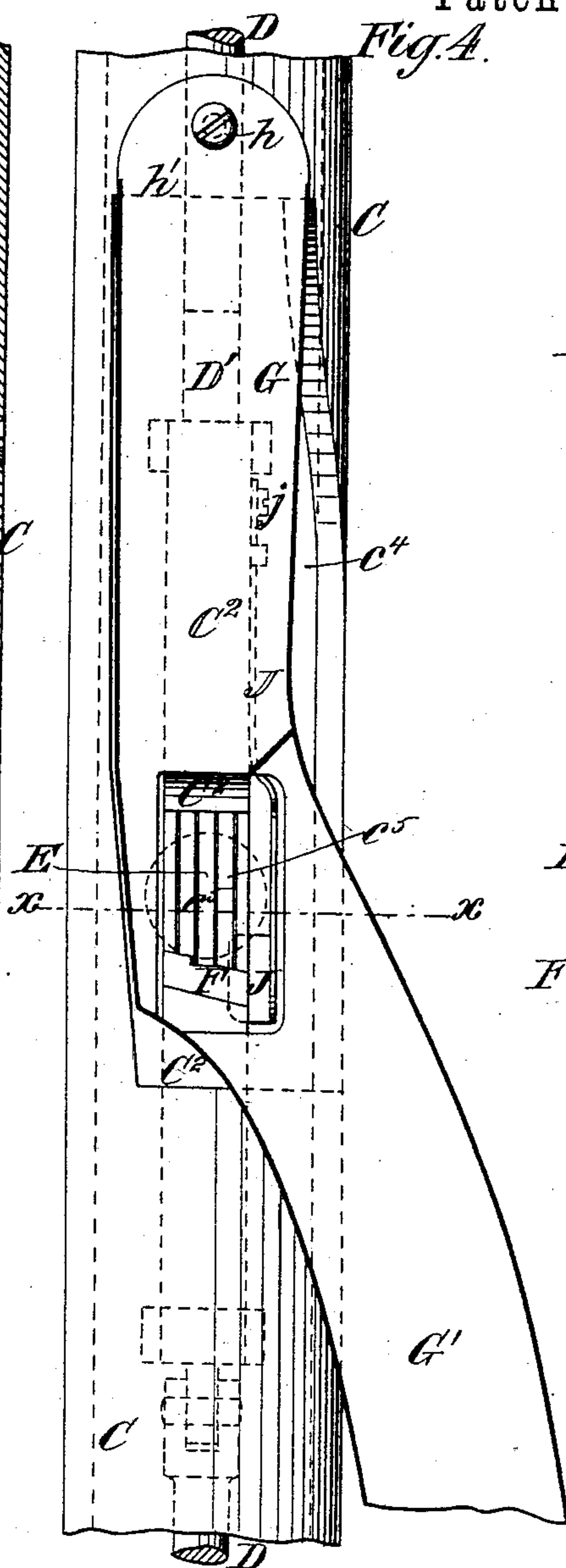
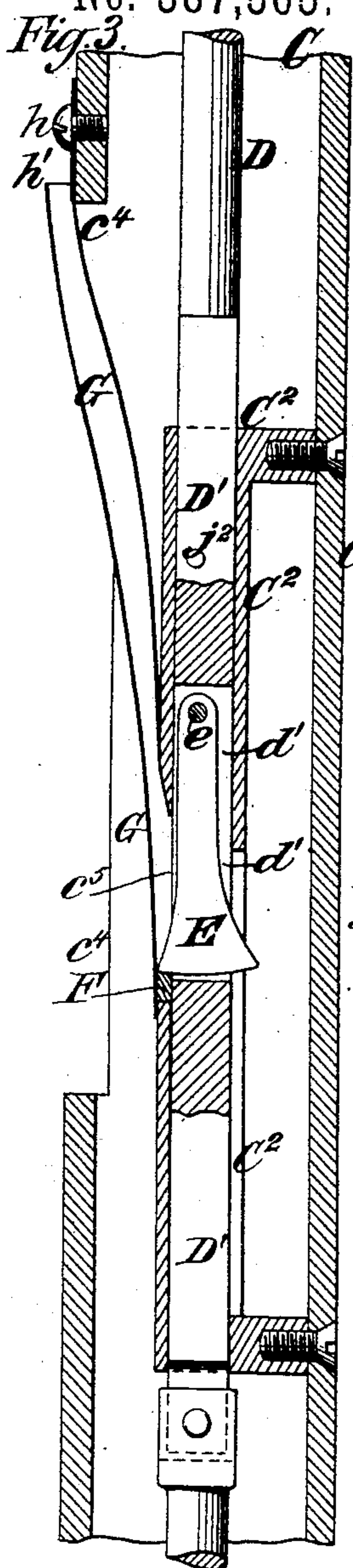
Inventor: John Moss.  
by his attorneys.  
Brown & Hall.

J. MOSS.

COIN CONTROLLED WEIGHING SCALE.

No. 387,565.

Patented Aug. 7, 1888.



Witnesses:

O. Sundgren,  
Emil Herter.

Inventor.

J. H. Moss.  
By his attorneys,  
Brown & Ball.



# UNITED STATES PATENT OFFICE.

JOHN MOSS, OF BROOKLYN, NEW YORK.

## COIN-CONTROLLED WEIGHING-SCALE.

SPECIFICATION forming part of Letters Patent No. 387,565, dated August 7, 1888.

Original application filed September 23, 1886, Serial No. 214,747. Divided and this application filed January 5, 1887. Serial No. 223,422. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN MOSS, a subject of the Queen of Great Britain and Ireland, residing in the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Scale Attachments, of which the following is a specification.

Weighing scales as heretofore constructed, in which the weight of a person is taken or indicated under control of a coin dropped into a duct by the person desiring to be weighed, have been expensive and delicate structures liable to get out of order.

The object of my invention is to provide an attachment for a scale of ordinary construction, which will permit weighing to be accomplished or performed only when a coin has been dropped within the duct, and which will be far simpler in construction than the scales of the kind above referred to.

My invention consists in the combination, with a scale-platform and an indicator and a rod permanently connecting them, of a fixed rest and a swinging stop pivoted to said rod and overlying the rest to lock the scale when there is no load on the platform, and a duct for guiding and confining a coin to make the weight available to move the stop and unlock the scale; also, in the combination, with such platform, indicator-rod, fixed rest, pivoted swinging stop, and duct, of a delivery-duct for the coin, a keeper, and a connection between said keeper and said rod, whereby said coin after unlocking the scale is held in position to keep it unlocked until the person or body to be weighed is on the platform, and then allowed to pass to the delivery-duct.

In the accompanying drawings, Figure 1 is an elevation of a scale embodying my invention. Fig. 2 is a vertical section in a plane at right angles to the plane of view in Fig. 1. Fig. 3 is a vertical section, upon a very much larger scale, of the parts which embody my invention. Fig. 4 is an elevation of the parts shown in Fig. 3, save that the ducts through which the coin is conducted to the rest and after performing its function passes away from the rest are shown in section. Fig. 5 is a horizontal section on the plane of the dotted line  $x x$ , Fig. 4. Fig. 6 is a front elevation of

a portion of the rod or weighing connection which connects the platform and the indicator, and the sheath or guide which incloses the said rod, the plane of view being at right angles to the plane of the section in Fig. 3. Fig. 7 is a side elevation of the parts shown in Fig. 6, and Fig. 8 is a horizontal section on the plane of the dotted line  $y y$ , Fig. 7.

Similar letters of reference designate corresponding parts in all the figures.

A designates the scale-platform, which is mounted upon a base, B, and from this base a column, C, extends upward and supports at its upper end a case, C', for the indicating mechanism.

D designates a rod or weighing connection on which the weight of the platform and its superposed body falls. This rod D is extended upward through the column C, and at its upper end is provided with a rack,  $d$ , which engages a pinion,  $e$ , on the arbor  $e^2$  of the indicator or index  $e'$ . When weight comes upon the platform A and the rod D has been released, as hereinafter described, by a coin, the rod D will be drawn down, and through the rack  $d$  will swing the index or indicator hand  $e'$  upon the dial  $e^2$ . After operation the index or hand, as also the rod D, will be returned by springs  $e^3$  within the indicator-case C'.

The parts as shown form a convenient illustration for the purposes of my invention; but it will be understood that my invention relates in nowise to any part of the scale save the rod D and the attachments which are employed therewith, and the remaining parts thereof may be of any suitable or ordinary construction.

The rod D may be round and roughly formed for the principal portion of its length, and it comprises a portion, D', which is or may be rectangular in transverse section, and which is truly finished and fitted to a rectangular guide, C<sup>2</sup>, formed in or secured in the column C, as best shown in Figs. 5, 6, 7, and 8.

E designates the swinging stop pivoted at  $e$  to the rod D, for locking the said rod against the downward movement necessary to weighing; and G designates the duct through which a coin will be conducted to the said stop for the purpose of moving it to a position to release the rod D. The said stop consists of a



pendulous or swinging tumbler working freely in a slot,  $d'$ , provided for it in the said rod, and it is so proportioned and formed that by the natural force of gravity it will assume a position in which a part of its lower end overlaps or overlies a rest, F, which is secured in or forms a part of the guide  $C^2$ , as best shown in Fig. 6.

The duct G passes downward through an opening,  $c^4$ , in front of the column C, and is continued downward in front of an opening or slot,  $c^5$ , formed in the front of the guide  $C^2$ . This duct or conductor G may be of sheet metal and secured, by screws  $h$  or otherwise, to the exterior of the column C and below the rest F. It is shown as prolonged below the rest F to form a delivery-duct,  $G'$ , for directing the coins into a box or receptacle,  $G^2$ , after they have performed their function of moving the stop E. Ordinarily the column C will be boxed in or inclosed, leaving the dial exposed at the top of the casing, and the conductor or ducts G  $G'$  with the box or receptacle  $G^2$  may be arranged entirely within the casing, a portion of which is shown in section at H in Fig. 1, save that the upper end or mouth,  $h'$ , of the receiving-duct G should be exposed at the outside of the casing.

When the parts are in the position shown in Fig. 3, it will be obvious that as a person steps upon the platform A the rod D will be held against downward movement by the swinging stop E, overlying the rest F, and consequently weighing cannot be performed. If, however, a person drops into the duct G a cent or coin of any denomination of proper size, it will pass downward through the duct, and will by coming against the inclined front of the stop E, which is exposed through the slot or opening  $c^5$ , push the stop inward by its weight, so that the lower end of the stop will be free from the rest F, and the rod D can be drawn downward by weight on the platform A. Provision must be made for the coin to run off the rest F, where it stops after having pushed off the stop E, and therefore the rest has its edge inclined laterally, as shown in Fig. 6; but unless some means were employed to prevent it the coin, which is shown by dotted outline at I in Fig. 6 as in position on the rest F, would not stay upon the rest, but would immediately roll off and pass downward through the delivery-duct  $G'$ , and would only have the effect of pushing back the stop E temporarily or momentarily, for after the coin had left the rest the stop would immediately swing back into the locking position shown in Fig. 3. To prevent this and to enable a person to step upon the scale and weigh himself at his leisure after the coin has been dropped into the duct, I employ a keeper for holding the coin upon the rest F, and this keeper is arranged to be moved away or retracted to deliver the coin by the downward movement of the rod D. The keeper J, which is here represented as pivoted at its upper end,  $j$ , overlaps the side of the rest, as best shown in Figs. 5 and

8. It has an inclined cam surface,  $j'$ , on which may operate a pin or stud,  $j^2$ , projecting from the rod D through a slot,  $j^3$ , in the guide  $C^2$ , as best shown in Figs. 7 and 8 and also in Figs. 5 and 6. When the scale is in a state of rest, the keeper J occupies the position shown in the drawings, and in such position will block the passage of the coin I away from the rest into the delivery-duct  $G'$ . As soon as a person drops a coin into the duct G, it acts upon the movable stop and moves it out of position and is retained upon the rest F by the keeper J. The weight of the person stepping upon the platform will draw down the rod D, and as soon as the lower end of the stop is clear of the rest F the pin  $j^2$  commences to act upon the cam-surface  $j'$  of the keeper J and retracts or moves it backward from out the path of the coin I, so that said coin may pass through the delivery-duct  $G'$ .

It may be observed that in applying my invention to a scale no change is made in the connection D between the platform and the indicator, except such as is necessary to attach the stop E, the said connection remaining intact or unbroken both when the scale is at rest and when weighing as in an ordinary scale.

I do not here claim, broadly, the combination, with a scale-platform and an indicator and a connection through which the indicator is operated by the weight on the platform, of a movable stop whereby the said connection is locked; nor do I claim, broadly, such combination of platform, indicator, connection, and movable stop when the movable stop is attached to the said connection and acts on a fixed rest; nor do I claim, broadly, the combination of such platform, indicator, connection, and movable stop and a fixed rest, as those combinations all form part of the subject-matter of my application for United States Letters Patent, Serial No. 214,747, filed September 28, 1886, of which this is a division.

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

1. The combination, with a scale-platform and indicator and a rod, D, connecting them, of the rest F, the swinging stop E, pivoted to said rod and overlying the rest, and the duct G, for guiding and confining a coin to make its weight available to move said stop, substantially as herein described.

2. The combination, with a scale-platform and a register and a connection through which the register is operated by weight on the platform, of a movable stop whereby the said connection is normally locked against weighing movement, a duct whereby a coin is guided and confined to make its weight available to move the stop and free the connection, and a keeper operated by the downward movement of the connection and which holds the coin in action upon the stop until the connection has moved to pass a locking position, substantially as herein described.

3. The combination, with a scale-platform



and indicator and a rod connecting them, of the fixed rest F, the swinging stop E, pivoted to the rod and normally overlying the rest, the keeper J, whereby the coin is held upon  
5 the rest, a connection between said rod and keeper, whereby the keeper is retracted at the downward movement of the rod, the duct G, for conducting the coin to the swinging stop and rest, and the delivery-duct G', substantially as herein described.

JOHN MOSS.

Witnesses:

FREDK. HAYNES,  
HENRY J. MCBRIDE.