

(No Model.)

W. R. MORSE.

SCALE.

No. 308,321.

Patented Nov. 18, 1884.

Fig. 1.

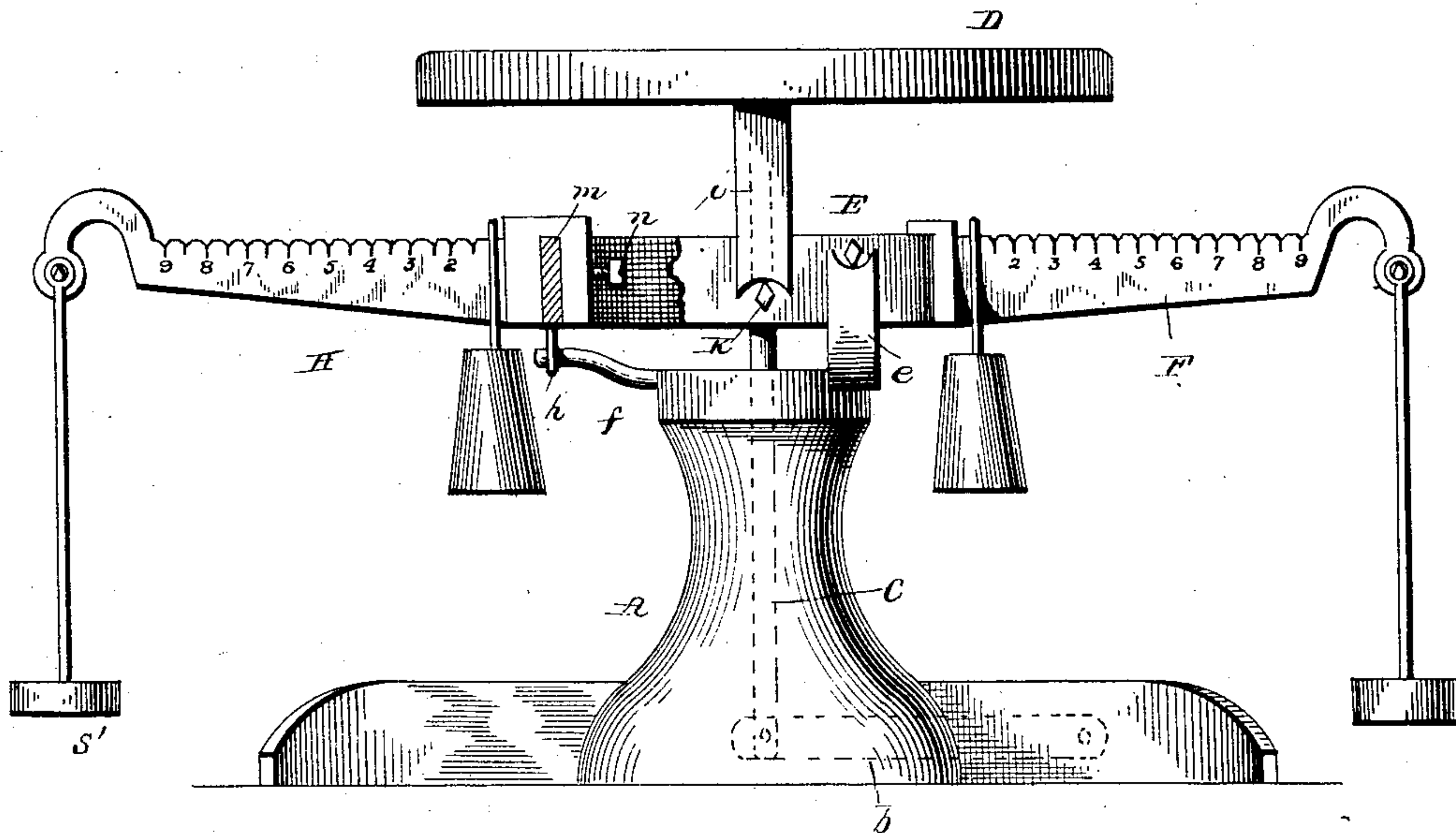


Fig. 2.

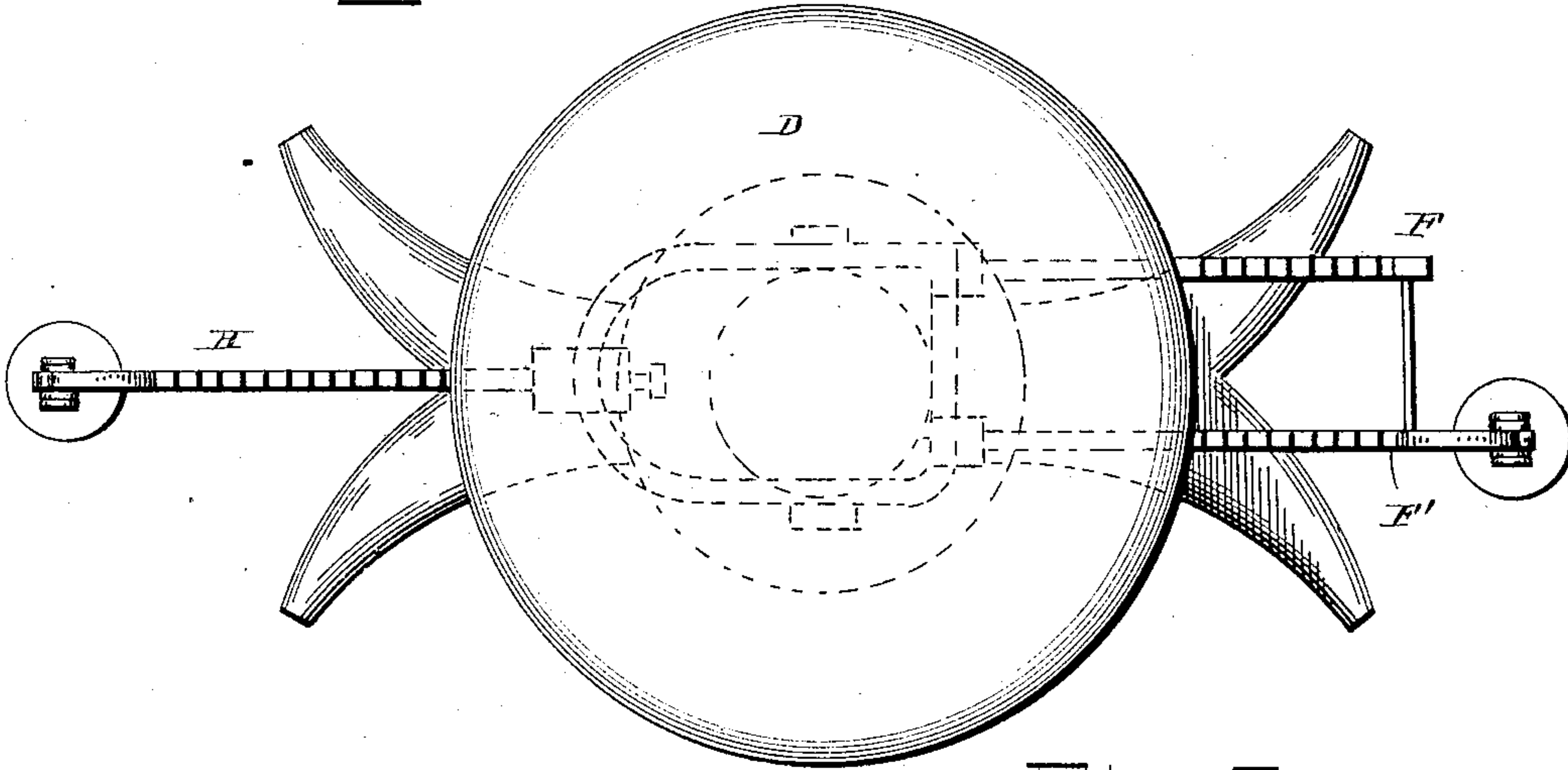
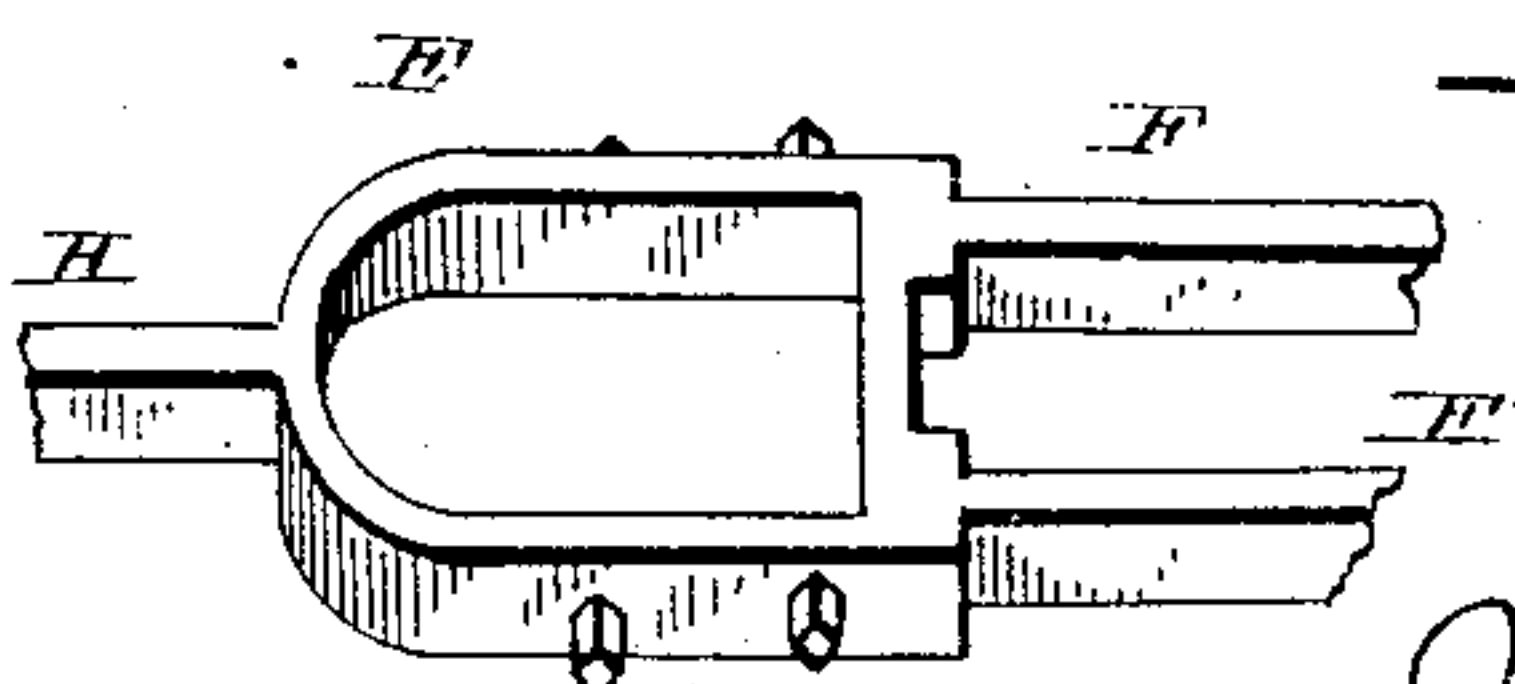


Fig. 3.

Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM R. MORSE, OF CHESTER, OHIO.

SCALE.

SPECIFICATION forming part of Letters Patent No. 308,321, dated November 18, 1884.

Application filed March 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. MORSE, a citizen of the United States, residing at Chester, in the county of Meigs and State of Ohio, have invented certain new and useful Improvements in Scales, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in weighing-scales, and is designed to produce a device with which the net weight of an article may be ascertained without replacing the said article on the scales after removing it from its receptacle, no mental calculation being necessary.

The improvement consists, essentially, in graduating the scale-beams, which project from each side of the fulcrum-point, from the butt toward the free end. These objects I attain by the means illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation of my improved weighing-scale, the front end of the sway bar or frame being shown in section to show the attachment of the auxiliary beam. Fig. 2 is a plan view of the same, and Fig. 3 is a perspective view of a portion of the sway bar or frame and scale-beams.

In the drawings, A represents the base and hollow standard of the scales, with the horizontal bar *b* and vertical rod *c*, supporting the platform D. The standard A is provided with the fulcrum *e*, supporting the frame E and beams.

H is the counteracting - beam, graduated from right to left, and supplied with the usual weighing-poise and a weight-pan, S'.

The sway bar or frame E consists, in my improved construction, of the central frame with the side knife-edged projections, the two parallel scale-beams F F', provided with the usual movable weights and a dependent balancing and weight pan and extending rearward from the frame, and the scale-beam H extending in the opposite direction.

In the manufacture of new scales, the beams F and F', the frame E, and the beam H are made integral by casting or otherwise, as shown in Fig. 3 of the drawings; but in some cases I prefer to make the scale-beam H at-

tachable, which is accomplished by enlarging the rear end of the beam and providing it with a slot, *m*, to fit over the sway bar or frame, and a set-screw, *n*, to hold it securely in place, as shown in Fig. 1 of the drawings.

It will be seen by referring to the drawings that the scale-beams are graduated from the standard A outward.

The operation of my invention is as follows: A basket of butter is brought to a store to be sold. The purchaser, to ascertain its net weight, readily places the basket and its contents upon the platform D of the scale, and by adjusting the poises on the beams F and F' the gross weight is ascertained, in which adjusted position the poise or poises should remain. Then the basket is emptied of its contents and placed upon the platform again. Then, by moving the poise on the beam H until it counterbalances the gross weight, the net weight of the article removed will be registered on the beam H without mental calculation.

It is evident that the basket, being on the opposite side of the fulcrum to the beams which register the gross weight, will counterbalance its own weight, and, if it and the poise on the beam H counterbalance the whole gross weight, then the weight registered by the poise on the beam H must be the net weight of the article removed.

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

A scale consisting of a standard supporting scale-beams projecting on each side of the fulcrum-point, said beams being graduated from the butt toward the free end, and provided with movable weights and pendent counterpoises, and a platform supported at one side the fulcrum, the whole device giving the gross weight of a contained article, and then, by replacing the package only, the net weight of the said article without mental calculation, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM R. MORSE.

Witnesses:

T. A. JEROLEMAN,
D. S. KIMES.