

W. F. STIMPSON.

SCALE.

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939,875.

Patented Nov. 9, 1909.

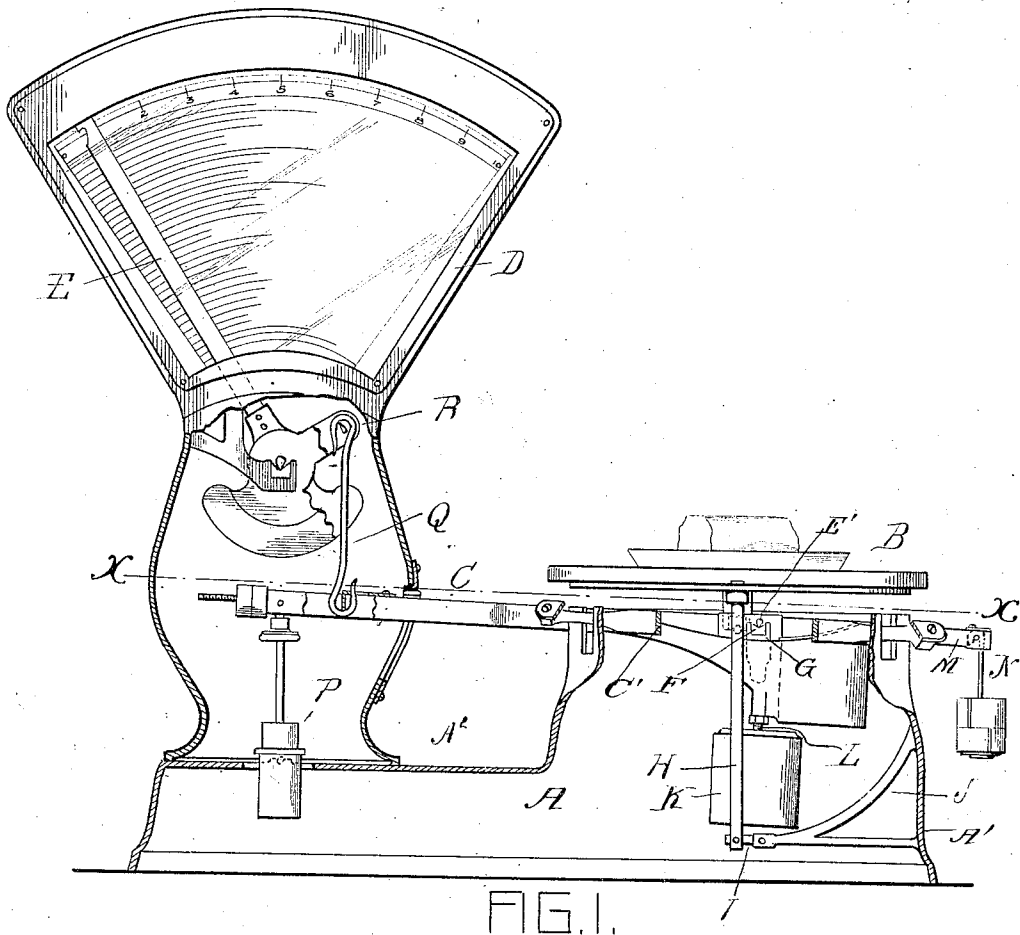


FIG. 1.

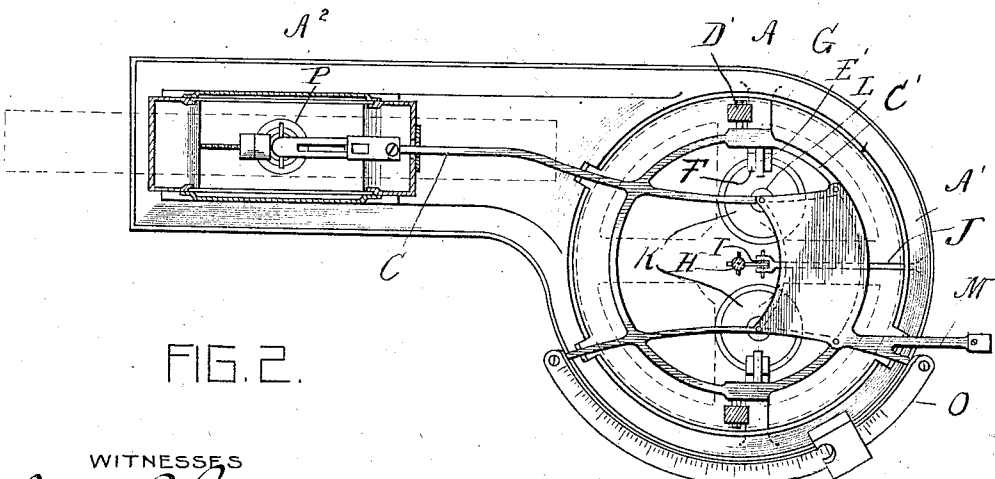


FIG. 2.

WITNESSES

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SCALE.

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To all whom it may concern:

Be it known that I, WALTER F. STIMPSON, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful improvements in Scales, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to scales of the type known as automatic, and of the class in which the weighing is effected by the lateral deflection of a pendent weight.

The invention consists in the novel construction, arrangement and combination of parts as hereinafter set forth.

In the drawings, Figure 1 is a vertical longitudinal section through the scale. Fig. 2 is a horizontal section therethrough on lines $x-x$ of Fig. 1.

It is one of the objects of the invention to obtain a construction of scale particularly adapted for a computing scale, in which the computing chart is arranged in a convenient position for inspection, but where it will not interfere with or limit the space above the platform. To this end, the base A of the scale has a circular portion A' above which the platform B is arranged and a tangential lateral extension A². The platform is mounted on a platform supporting lever, or beam C, which is fulcrumed within the circular portion of the base, and has an arm projecting outward in line with the lateral extension.

D is the base for the computing chart, which is mounted upon the outer end of the lateral extension A² and in which is an index arm E operatively connected to the beam C. By the arrangement just described, a clear space is provided above the entire area of the circular platform B, while the computing chart is housed in close proximity to the platform, but without cramping the space thereabove.

A further feature of the invention is the arrangement of the pendent weight. This is located in the vertical plane of the fulcrum pivots for the beam C, and in close proximity to the plane of the supporting pivots on said beam for the platform. This arrangement provides a wide range of action for the scale, without the necessity of an excessively long extension of the lever C. As illustrated the lever C has a frame portion C' within the circular portion of the base, this frame por-

tion being preferably also of circular form. On opposite sides of the circular frame portion are pairs of knife edge pivots respectively for the fulcrum of the beam and the support of the platform. One pair of pivots project inwardly from the frame C' and the other pair outwardly therefrom, and thus the vertical planes of the two pairs of pivots may be brought closer to each other than would be possible if said pivots were side by side. As illustrated, the outwardly projecting pair of pivots D' supports the platform B, and the inwardly projecting pair E' of the pivots is supported upon bearings F on inwardly extending arms G on the base A'. The platform B is provided with a suitable guide arm H, preferably depending centrally therefrom, and attached to a vertically swinging link I pivoted to an inwardly projecting bracket J on the base.

I preferably provide a pair of pendent weights K, which are arranged, as before stated, in the vertical plane of the fulcrum pivot. These weights are preferably vertically adjustably secured to downwardly extending shanks L on the frame portion of the beam.

M is an arm extending from the frame portion C' of the beam outward oppositely to the extension of the beam, and to the free end of this arm M is secured a pendent counterpoise N.

O is a tare beam, which is arranged outside of the beam, and extends upon opposite sides of the vertical plane of the fulcrum, being attached to projecting arms from the frame C' of the beam.

P is a dashpot for limiting the oscillations of the beam, and which is preferably arranged beneath the free end of the beam, as illustrated.

Q is a connecting link between the beam and a rock arm R on the pivot of the index arm E.

With the construction as described, the pendent weights K are normally arranged substantially in the vertical plane of the fulcrum. Whenever an article is placed upon the platform B, it will depress the same, rocking the beam C and deflecting pendent weights from the vertical plane until they counterbalance the weight. This movement will be communicated through the link Q and rock arm R to the index E, which will be moved over the computing chart to effect a proper indication of the weight and value.

What I claim as my invention is:

1. A scale comprising a platform a circular base beneath said platform, having a tangentially extending portion and a platform supporting lever or beam fulcrumed within the circular portion of said base and extending parallel to the tangential portion thereof.

2. A scale comprising a platform, a base having a circular portion beneath said platform and a tangentially extending portion, a platform supporting lever or beam fulcrumed within said circular portion of the base and extending parallel to said tangential portion, an indicator mounted upon the end of the tangential portion of said base, and a connection between the free end of said beam and said indicator.

3. A scale comprising a platform, a circular base beneath said platform having a tangentially extending portion, a platform supporting lever or beam within the circular portion of said base and extending parallel to the tangential portion thereof, said lever terminating in an enlarged circular frame and pairs of pivots on opposite sides of said circular frame respectively for supporting the platform and for the fulcrum of the beam, each pair comprising members projecting in opposite directions.

4. A scale comprising a weighing platform, a supporting beam therefor terminating in an enlarged portion beneath said platform, pairs of pivots upon opposite sides of said enlarged portion, one member of

each pair being a platform supporting and the other a fulcrum pivot, and the members of each pair projecting in opposite directions only from their points of attachment to the beam to provide clearance for their respective bearings.

5. A scale comprising a weighing platform, a supporting beam therefor terminating in an enlarged circular framework beneath said platform, and pairs of pivots on opposite sides of said circular portion, one member of each pair being a platform supporting and the other a fulcrum pivot, and the members of each pair projecting in opposite directions from their points of attachment to the circular framework to provide clearance for their respective bearings.

6. A scale comprising a weighing platform, a supporting beam therefor terminating in an enlarged circular framework beneath said platform, and pairs of pivots, one of each pair being a platform supporting and the other a fulcrum pivot, one pair being substantially diametrically opposite the other pair on said enlarged circular portion, each pair comprising members arranged on opposite sides of the framework and extending in opposite directions from each other.

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

WALTER F. STIMPSON.

Witnesses:

AMELIA WILLIAMS,
JAMES P. BARRY.