2 Sheets—Sheet 1.

F. MEYER, Jr.

Platform-Scale.

No. 220,405. Patented Oct. 7, 1879.

Fig. 1.

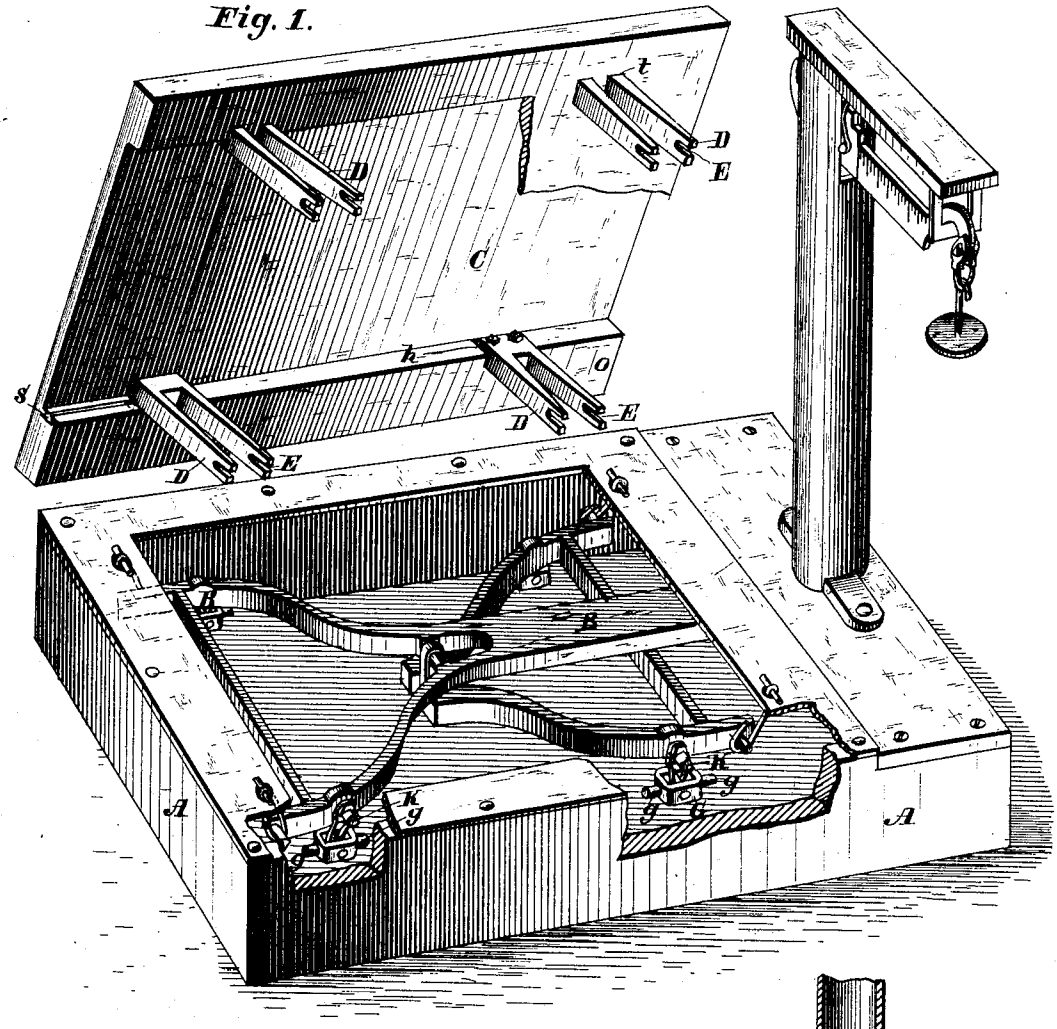
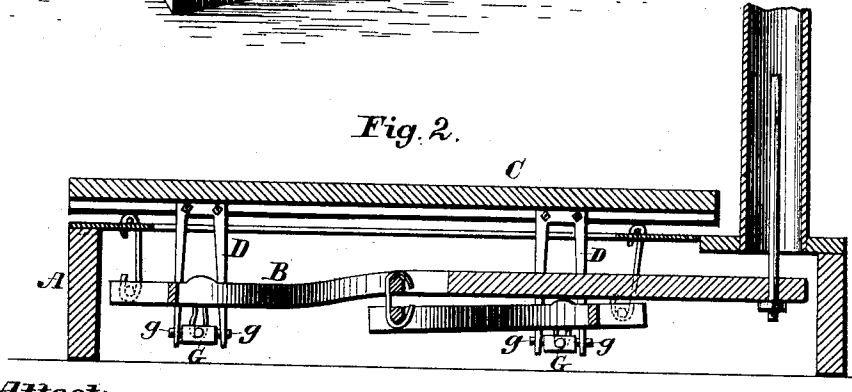


Fig. 2.



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2 Sheets—Sheet 2.

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Fig. 3.

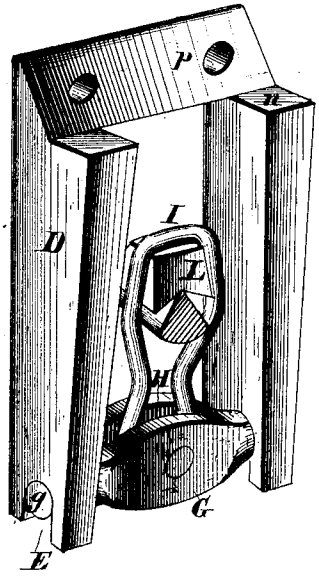


Fig. 4.

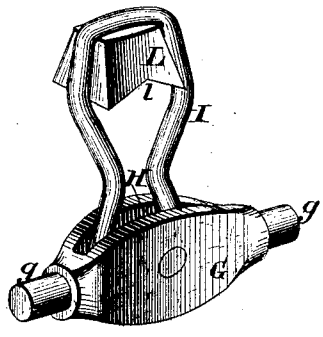


Fig. 5.

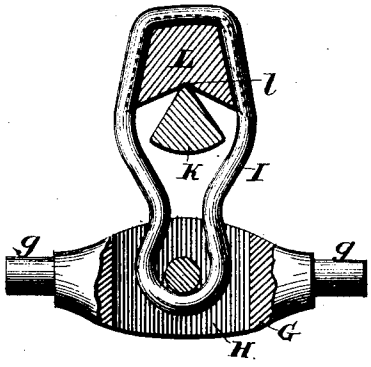


Fig. 6.

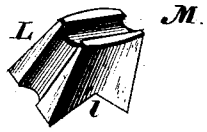
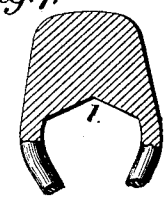


Fig. 7.



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UNITED STATES PATENT OFFICE.

FREDRICK MEYER, JR., OF NEWARK, NEW JERSEY.

IMPROVEMENT IN PLATFORM-SCALES.

Specification forming part of Letters Patent No. **220,405**, dated October 7, 1879; application filed August 28, 1879.

To all whom it may concern:

Be it known that I, FREDRICK MEYER, Jr., of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Weighing-Scales, of which the following is a specification.

This invention relates to certain improvements in platform-scales; and it has for its object to secure a combined positive rocking or pendulous and a longitudinal motion to the connections by which the platform is secured to the levers of the scale, whereby the usual check-rods may be dispensed with and a more simple and accurate scale produced.

To this end the invention consists, first, in the combination, with the levers of a platform-scale, of a foot or support secured to the platform, for connecting with a bearing having journals in the nature of a rock-shaft, and provided with a loop having a bearing for the knife-edges of the levers, to which said loop is attached, whereby the loop is rendered capable of a positive lateral motion, as more fully hereinafter set forth; second, in the combination, with the bearing provided with journals for the support or foot of the platform, of a loop loosely secured in a recess in said bearing, whereby said bearing may be secured to the scale-levers, as more fully hereinafter specified; third, in the combination, with the loop secured to the journaled bearing, of a detachable bearing adapted to rest on the knife-edges of the lever, which can be readily removed and replaced when worn or injured, as more fully hereinafter set forth; fourth, in the combination, with the bearing or rock-shaft provided with journals upon which a support or foot of the platform is adapted to rest, of the loop secured in a recess in said bearing or rock-shaft, and the bearing for the knife-edges of the levers, as more fully hereinafter set forth.

In the drawings, Figure 1 represents a perspective view of my improved scale with portions of the side broken away and the platform elevated, to show the working parts of the same. Fig. 2 represents a longitudinal central section of the scale, showing the parts in position. Fig. 3 represents a perspective view of the foot, showing the journaled bearing or rock-shaft and the loop and knife-edge bearing by which the foot is secured to the scale-levers. Fig. 4 represents a detached perspective view of the journaled bearing or rock-shaft, showing the knife-edge bearing detachably secured in the loop. Fig. 5 represents an elevation of the journaled bearing or rock-shaft, loop, and knife-edge bearing in position upon the knife-edge of the scale-lever. Fig. 6 represents a detached perspective view of the knife-edge bearing, and Fig. 7 shows a view of the knife-edge bearing constructed in one and the same piece with the loop.

The letter A indicates the frame of a platform-scale, and B the levers which support the platform, which are of the ordinary construction, and mounted and connected with the scale-beam in the usual manner.

The letter C indicates the platform of the scale, which is provided with a series of feet or supports, D. Each foot or support is provided at its lower ends with recesses E, which rest, when the platform is in place, upon the journals *g* of a bearing or rock-shaft, G, which is provided with a recess, H, in which is loosely secured a loop, I, by means of which the said bearing G may be secured to the knife-edges K of the levers B.

The letter L, Figs. 3, 4, 5, and 6, indicates a bearing for the knife-edges, consisting of a block of metal, having grooves M at the sides and upper edge, by which it is held in the loop, and provided with a V-shaped recess, *l*, by means of which the knife-edges are caused to automatically seek a central bearing.

The bearing for the knife-edges is not necessarily detachable, but may form an integral part of the loop.

The feet or supports are provided near their upper ends with a shoulder, *n*, which, when in place, sets under the flange *o* on the under side of the platform, as shown at Fig. 1, and is secured in place by screws or bolts passing through the beveled edge *p* of the foot, as shown in Fig. 3, which rests against the inner side of the flange *o* of the platform. I do not, however, intend to limit myself to this means of attachment, as other means may be substituted; for instance, the foot may be formed with a dovetail at its upper edge, which may be secured in a correspondingly-shaped dovetailed seat, *s*, in the side of the platform, or the feet may be cast in one and the same piece

with the platform, as indicated by the letter *t*. The foot may also be provided with a screw-threaded extension at the top, and secured in a screw-threaded aperture in the platform.

It will be perceived that as thus constructed the loops attached to the bearing for the supports or feet of the platform are capable of a combined positive lateral or rocking and longitudinal motion, the lateral motion being due to the journaled bearing, and the longitudinal motion to the movement of the loops on the knife-edges, rendering the action of the platform, under the influence of any weight, extremely accurate, and that the ordinary check-rods usually employed to limit and control the lateral movement of the platform as commonly mounted are dispensed with, rendering the scale more simple in construction and more delicate and reliable in operation.

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

1. The combination, with the levers of a platform-scale, of a foot or support secured to the platform, for connecting with a rock-shaft or bearing having journals, said bearing being provided with a loop having a bearing for the knife-edges of the scale-levers, whereby a combined positive lateral or rocking as well as a longitudinal motion is provided for the platform, substantially as and for the purposes specified.

2. The combination, with the rock-shaft or bearing provided with journals for the support or foot, of a loop loosely secured in a recess in said bearing, whereby said bearing may be secured to the scale-levers, substantially as specified.

3. In combination with the loop secured to the journaled bearing or rock-shaft, a bearing adapted to rest on the knife-edges of the lever, the said bearing being capable of ready removal, whereby it may be replaced when worn or injured, substantially as specified.

4. In combination with the rock-shaft or bearing provided with journals upon which a support or foot of the platform is adapted to rest, the loop secured in a recess in said bearing, and the bearing for the knife-edges of the lever secured in said loop, substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

FREDRICK MEYER, JR.

Witnesses:
JAMES L. NORRIS,
JAMES A. RUTHERFORD.