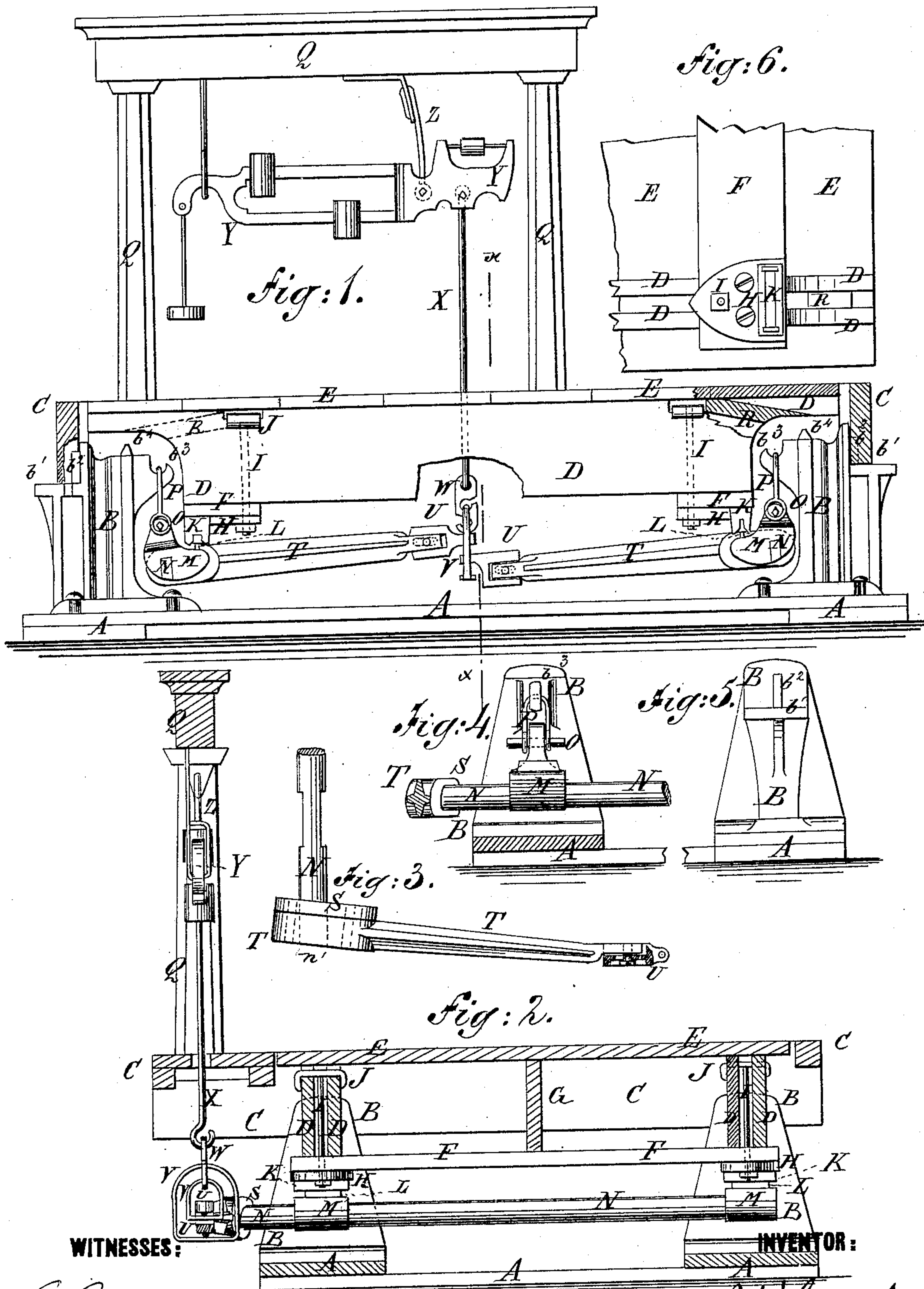


A. W. COMSTOCK.

PLATFORM-SCALE.

No. 176,513.

Patented April 25, 1876.



WITNESSES:

INVENTOR:

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UNITED STATES PATENT OFFICE.

AUSTIN W. COMSTOCK, OF MOUNT PLEASANT, IOWA.

IMPROVEMENT IN PLATFORM-SCALES.

Specification forming part of Letters Patent No. **176,513**, dated April 25, 1876; application filed November 13, 1875.

To all whom it may concern:

Be it known that I, AUSTIN W. COMSTOCK, of Mount Pleasant, in the county of Henry and State of Iowa, have invented a new and useful Improvement in Platform-Scales, of which the following is a specification:

Figure 1 is a front view of my improved platform-scale, partly in section, to show the construction. Fig. 2 is a vertical section of the same taken through the line *x x*, Fig. 1. Fig. 3 is a detail view of one of the levers and an end part of one of the bars. Fig. 4 is a detail view, showing the manner in which the bars are hung from the chairs. Fig. 5 is a detail view of the outer side of one of the chairs.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish improved weighing-scales, simple in construction, easily adjusted, strong, durable, and not liable to get out of order.

The invention consists in the construction and combination of parts, which will be hereinafter more fully described, and specifically pointed out in the claims.

A is the base or foundation-frame upon which the chairs B rest, and to which they are securely bolted. Upon the outer sides of the upper parts of the chairs B are formed shoulders or steps *b*¹, upon which the end timber of the frame C, that surrounds the platform, rest.

Upon the chairs B, just above the shoulders *b*¹, are formed tenons or tongues *b*², which enter grooves in the end timbers of the frame C, and keep them from longitudinal movement. The ends of the side timbers of the frame C are bolted to the ends of its end timbers.

D are the chords or beams upon which the platform E rests, and by which said platform is supported. The chords D are made double, or of two parallel beams held at the proper distance apart by blocks interposed between them. To the lower edges of the chords D are attached timbers F, upon which the intermediate timbers G, that support the platform E, rest. The ends of the chords D are recessed upon their under sides to receive the chairs, and to their lower edges, at the shoul-

ders thus formed, are bolted the feet H, which are further secured and strengthened by long bolts I, which pass down through the space between the parts of the chords D, and have cross-heads or clamps J upon their upper ends, resting in notches in the upper edges of said chords D. The ends of the said clamps or cross-heads J, are bent downward to overlap the outer sides of the chords D, as shown in Figs. 1 and 2.

In the feet H are set steel blocks or plates K, to rest upon the knife-edges L attached to the side projections of the blocks M, attached to or formed upon the bars N. The blocks M are made with top projections, through which are formed holes to receive the diamond-shaped bars O, the upper edges of which support the blocks M, and the lower edges of their ends rest upon the lower surface of the eyes formed in the ends of the loops P, which are hung upon hooks *b*³, formed upon the upper inner part of the chairs B. In the space between the parts of the chords D, toward their ends, are secured inclined bars R, which serve as roofs to prevent rain and dust from falling upon the bearings, and conduct them to the tops of the chairs B, the sides of which are beveled or rounded off and grooved or channeled, to conduct said rain and dust to the ground.

To the rear ends of the bars N are attached, or upon them are formed, inclined cross-heads S, to which are bolted the outer ends of the levers T and tenon *n'*, which enter mortises in the outer ends of the levers T. The levers T thus incline to the rearward to bring their inner ends sufficiently to the rear of the platform to be directly beneath the balance-beam. The levers T, near their inner ends, are bent forward at such an angle that their ends may be at right angles with the bars N. The inner ends of the levers T are inserted in grooves or sockets in blocks U, which have short slots formed in them to receive the fastening-bolts so that they can be conveniently adjusted. The ends of the blocks U have toes formed upon them, which overlap each other and enter the stirrups V. The toes of the blocks U have points attached to them, which enter sockets in the bottom bars of the stirrups V.

The stirrups are made of such a size that one may hang freely within the other, as shown in Fig. 2, and their upper parts are hooked upon the double hook W, as shown in Figs. 1 and 2. The double hook W is hung upon the lower end of the rod X, which passes up into a slot or mortise in the rear part of the balance-beam Y, and is hung upon a knife edge pivot attached to said beam.

The beam Y is suspended by a knife-edge pivot from the lower end of the rod Z, which enters a slot or mortise in the beam Y, and the upper end of which is attached to the top bar of the beam-frame Q. The beam Y is provided with weights and the movement of its forward end is limited by a guard in the usual way.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a platform-scale, the combination of the chairs B, having outer shoulders b^1 b^2 and inner hooks b^3 , with the platform timbers and the balance-levers, as and for the purpose set forth.

2. The combination of the transverse rock-bars N, cross-heads S, inclined levers T, and blocks U, with the platform and beam of a platform-scale, as herein shown and described.

3. The combination of the inclined pieces or bars R, with the parts of the chords D, and with the bearings of the platform, substantially as herein shown and described.

AUSTIN W. COMSTOCK.

Witnesses:

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