

S. PEIRCE.
Balance Scales.

No. 23,700.

Patented April 19, 1859.

Fig. 1

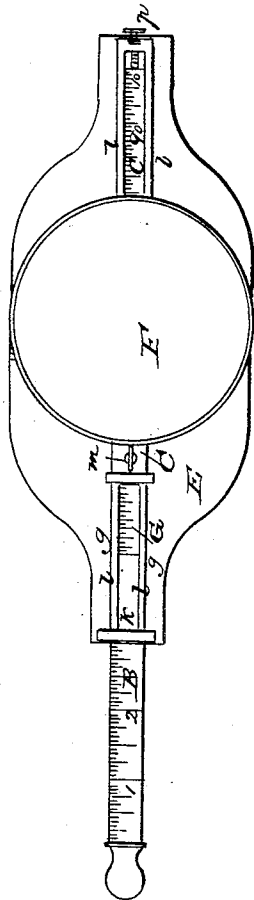


Fig. 2

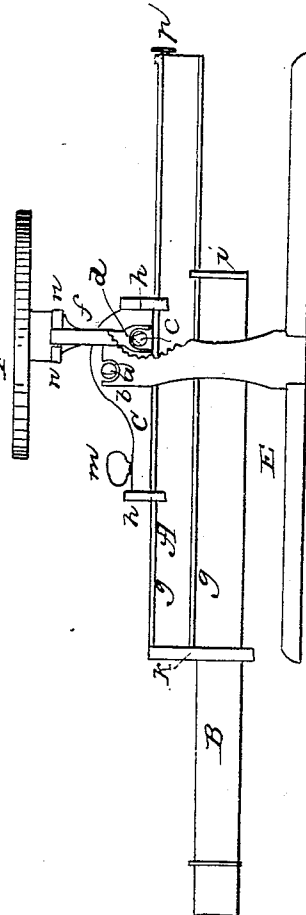
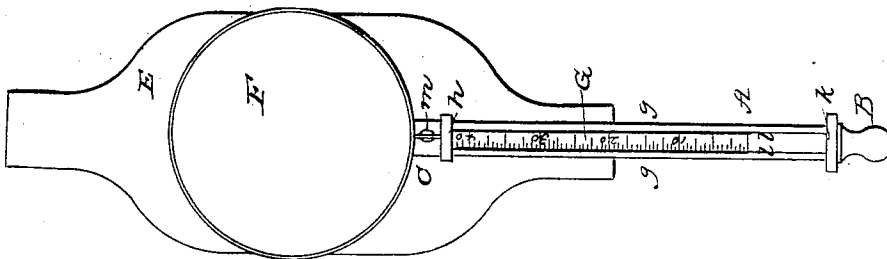


Fig. 3



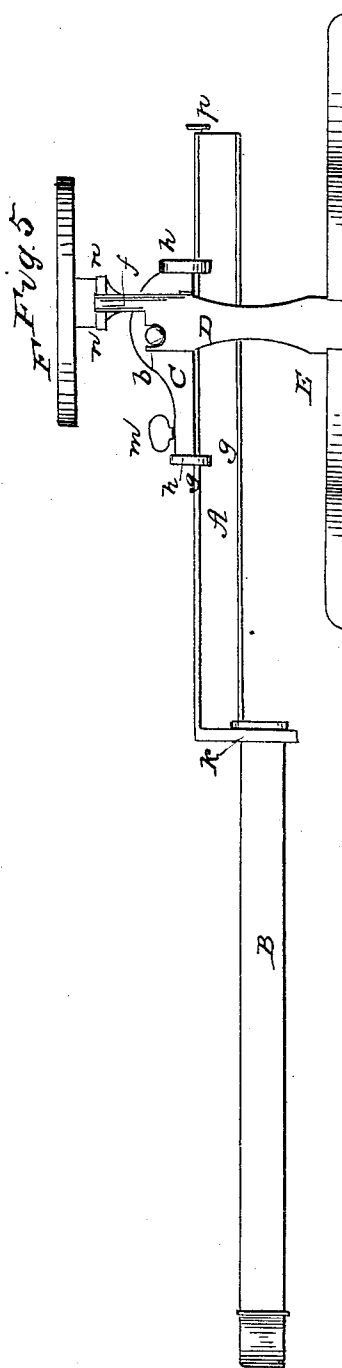
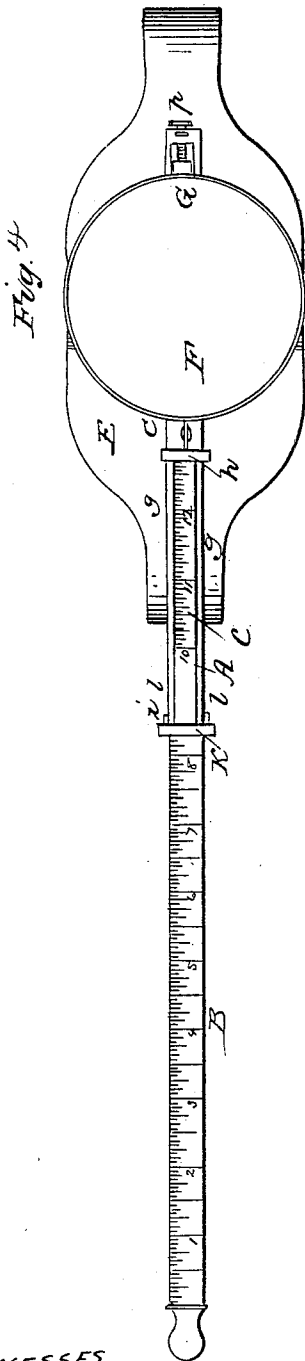
John H. Wells
Joseph S. Howell WITNESSES

INVENTOR
Samuel Peirce.

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WITNESSES
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UNITED STATES PATENT OFFICE.

SAMUEL PEIRCE, OF CAMBRIDGEPORT, MASSACHUSETTS.

WEIGHING-SCALE.

Specification of Letters Patent No. 23,700, dated April 19, 1859.

To all whom it may concern:

Be it known that I, SAMUEL PEIRCE, of Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Weighing-Scales; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1, is a plan of the scales, with the lower poise-slide partly drawn out; Fig. 2, a side elevation thereof, in the same position; Fig. 3, a plan thereof, with both poise-slides drawn out together; Fig. 4, a plan thereof, with the lower poise-slide entirely drawn out, and the upper one partly drawn out; Fig. 5, a side elevation thereof, in the same position as in Fig. 4.

Like letters designate corresponding parts in all the figures.

I employ two poise-slides A, and B, in such a manner that, by drawing out one of them, or both of them, successively or together, different degrees of weight are indicated by scales marked thereon; and by the same device, in connection with a fulcrum-block C, the scales are accurately adjusted. The fulcrum-block has an axis *a*, which serves as the fulcrum of the scales, the knife-edged extremities thereof resting in sockets or bearings *b, b*, in upright standards D, D, secured on a suitable base E, as shown in Figs. 2, and 5. In the rear of the axis *a*, are the weight bearings *c, c*, projecting from the block C, the extremities thereof being also made knife-edged, as usual. On these rest the supports *d, d*, (Fig. 2,) of the dish or platform F. The said dish or platform may be guided in its movements, up and down, by projections *f, f*, of the standards D, D, which fit in notches in the ends of a cross piece *n*, secured to the bottom of the dish or platform; or in any convenient manner.

The upper poise-slide A, is made with small side ledges *g, g*, or their equivalent, projecting from its four corners, the upper ones of which fit into corresponding notches on the inside of the projections *h, h*, on the ends of the fulcrum-block C, and the lower ones thereof fit into the notches of a similar projection *i*, of the lower poise-slide B. The poise-slide B, moves through a guide *k*, projecting downward from the front end of the poise-slide A. On the upper poise-slide A, is an adjustable scale G, which may be adjusted by a screw *p, p*, in the rear end of said poise-slide, or in any convenient manner. The object of this adjustment is to allow the poise-slide to be accurately balanced. The lower poise-slide is also marked with a scale of weights. For weighing small quantities, the upper poise-slide is secured to the fulcrum-block by means of a thumb-screw *m*, in said fulcrum-block, as represented in the drawings, so that the lower poise-slide B, alone is used. If the weight of the article or substance to be weighed is too great for the lower poise-slide, the upper poise-slide A, is then drawn out (having been set free,) till the weight is indicated on its scale. A third scale of weights may be obtained by drawing out both of the poise-slides together, as represented in Figs. 4, and 5.

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

The combination and arrangement of the two poise-slides A, B, and the fulcrum-block C, substantially in the manner and for the purposes herein specified.

The above specification of my improved scales for weighing, signed by me this thirty first day of January, 1859.

SAMUEL PEIRCE.

Witnesses:

ABRAHAM EDWARDS,
JOSEPH G. BICKNELL.