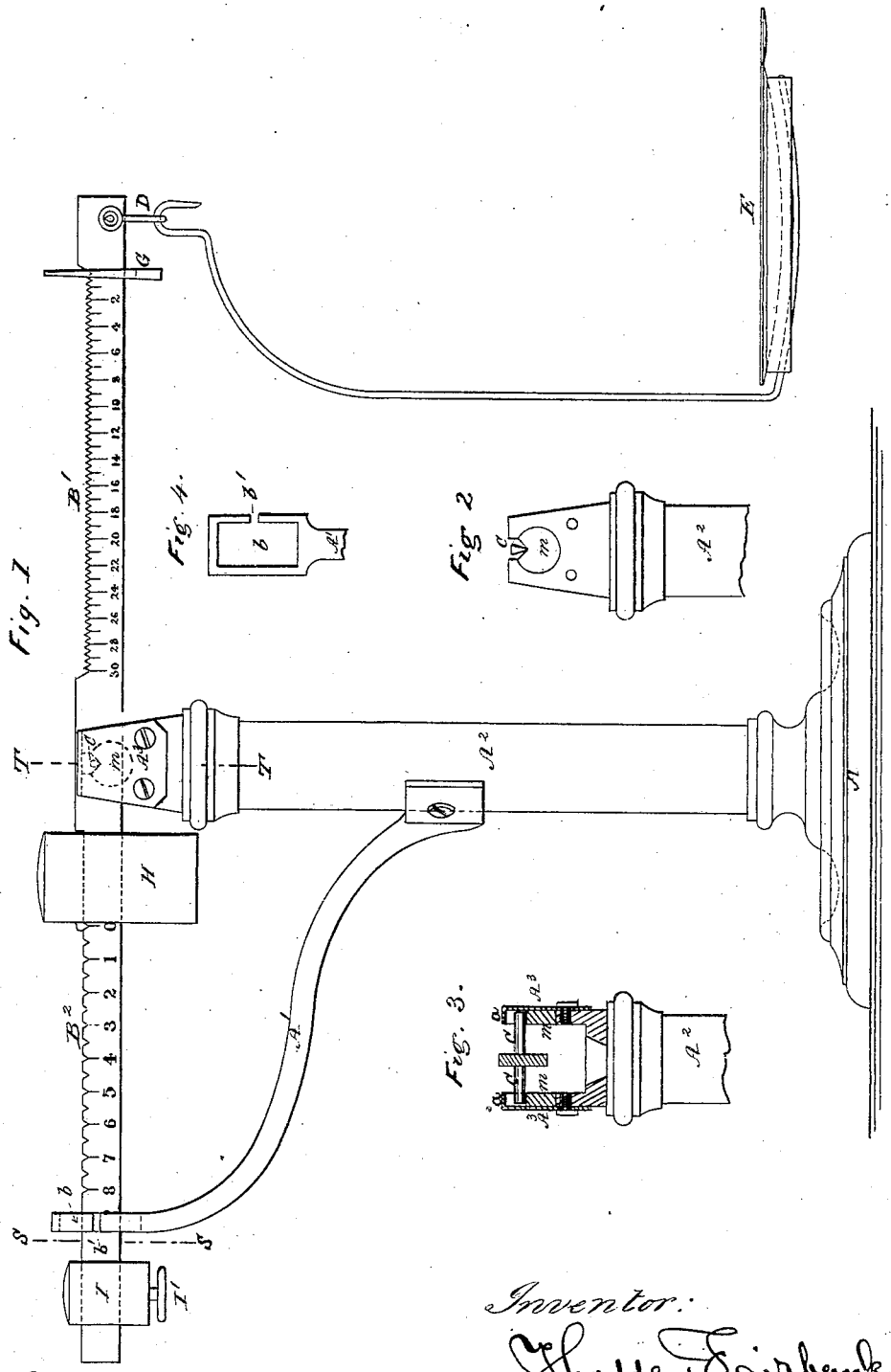
T. FAIRBANKS.
Weighing-Scale.

No. 207,263. Patented Aug. 20, 1878.



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UNITED STATES PATENT OFFICE.

THADDEUS FAIRBANKS, OF ST. JOHNSBURY, VERMONT.

IMPROVEMENT IN WEIGHING-SCALES.

Specification forming part of Letters Patent No. **207,263**, dated August 20, 1878; application filed May 15, 1878.

To all whom it may concern:

Be it known that I, THADDEUS FAIRBANKS, of St. Johnsbury, county of Caledonia, in the State of Vermont, have invented certain new and useful Improvements relating to Weighing-Scales, of which the following is a specification:

The invention is an improvement on the one recently patented to me, dated April 23, 1878. It is a style of scales used mainly by druggists, and known as "prescription scales." I have devised a construction by which the appearance is improved and the device is more conveniently applied together and taken apart.

The accompanying drawings form a part of this specification.

Figure 1 is a general side elevation, showing the scale complete. Fig. 2 is a side view of the central bearing with the retaining-plates removed. Fig. 3 is a cross-section through the line T T in Fig. 1. Fig. 4 is a cross-section of a portion on the line S S in Fig. 1.

Similar letters of reference indicate like parts in all the figures.

A is a tastily-formed circular piece of metal, having a single upright column, A^2, in its center, provided with a branching arm, A^1. B^1 B^2 is an equally-divided, or nearly equally-divided, beam, hung on the central knife-edge C in properly-prepared recesses in the forked top of the post A^2. Properly-formed plates of sheet metal, A^3, are secured by screws, as shown, to retain the beam against displacement.

The arm A^1 is formed with a slot, *b*, of sufficient height to allow the beam the necessary vibrating motion, but without any excess. An opening, *b'*, in the side of the slot, allows the beam to be removed when required without the necessity of displacing the external poise I, which balances the pan E and its supporting means D at the opposite end of the beam, and, when firmly fixed by its pinching-screw I' in the right position, never need be disturbed.

H is a heavy poise working on notches on the arm B^2 of the beam, and adapted to indicate pennyweights, scruples, or ounces, as the case may be. The graduations on this arm increase from zero outward in the ordinary manner.

G is a lighter poise working on the opposite arm, B^1, which is graduated with figures increasing from zero inward toward the center. This is adapted to indicate the smallest divisions of the weight, as grains.

The bearings for the knife-edge C are formed by letting in pieces of hardened steel, *m*, in the forked upper ends of the post A^2. The central post A^2 may be finished by turning, and it, as also the foot A, may be richly finished.

The arm A^1 may be secured by screws, and is tastily curved, as shown. It affords a reliable support for the beam and a check for its vibrations, and allows the easy removal of the beam when required for any purpose without shifting the weight I.

In order to remove the beam it is only necessary to take off one of the plates A^3, when the beam, with its knife-edge, can be raised from its bearings in the post, the beam slightly turned in the slot *b* and passed through its opening *b'*, without removing the poise I. The removable plates A^3 are bent at their upper ends at *a*, and thus secure the knife-edge from displacement both vertically and laterally.

The scale presents a neat and attractive appearance, and the parts may be made rapidly and cheaply by suitable machinery.

I do not in this application claim the beam, poises, and pan, the same having been shown in the patent above referred to, dated April 23, 1878.

I am aware that it is common to support a scale-beam on the upper end of a post, and I therefore lay no claim to such invention; but

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

The inclined removable arm A^1, having the slot *b* at its upper end, with an opening, *b'*, in its side, for the reception and removal of the weighing-beam B^1 B^2, without displacing the poise I, in combination with the weighing-beam and poise I, the vertical post A^2, in the upper end of which the beam is poised, and the removable sheet-metal plates A^3, to retain the beam against displacement, as herein specified.

In testimony whereof I have hereunto set my name in presence of two subscribing witnesses.

THADDEUS FAIRBANKS.

Witnesses:

ELIJAH D. BLODGETT,

D. DEAN PATTERSON.