

E. P. CRAIN.
SCALE BEAM.

No. 68,490

Patented Sept. 3, 1867.

Fig. 1

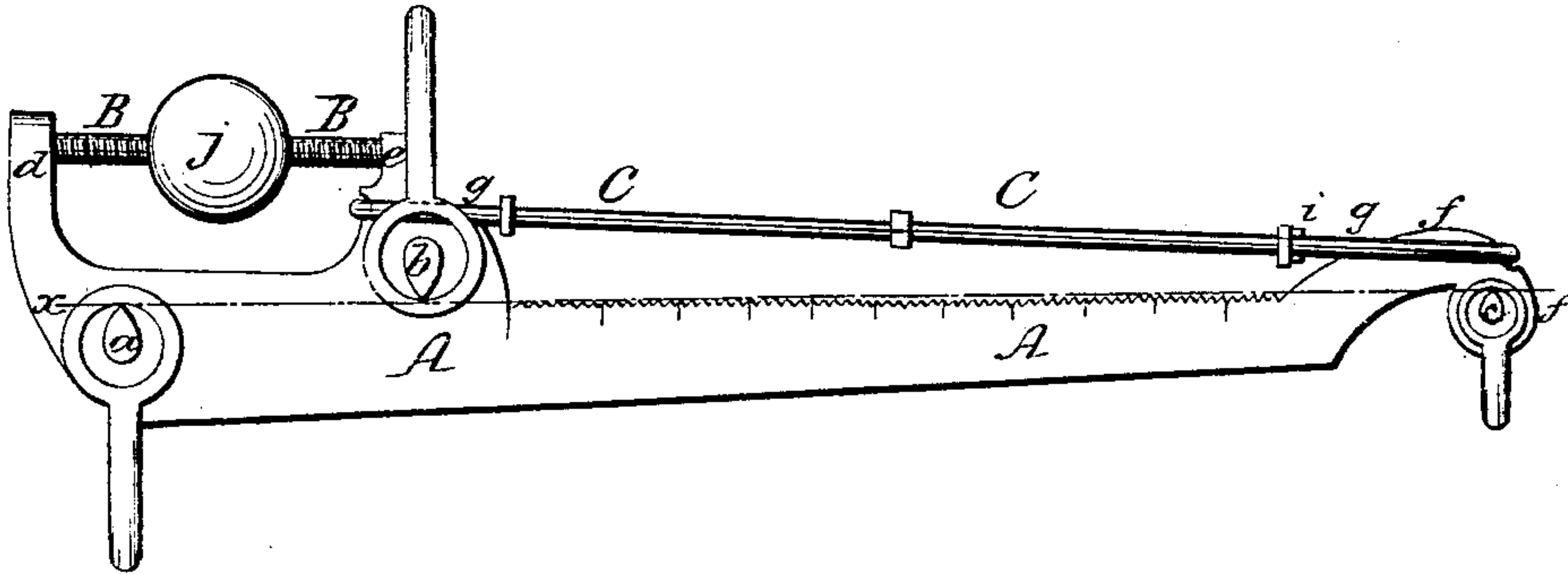
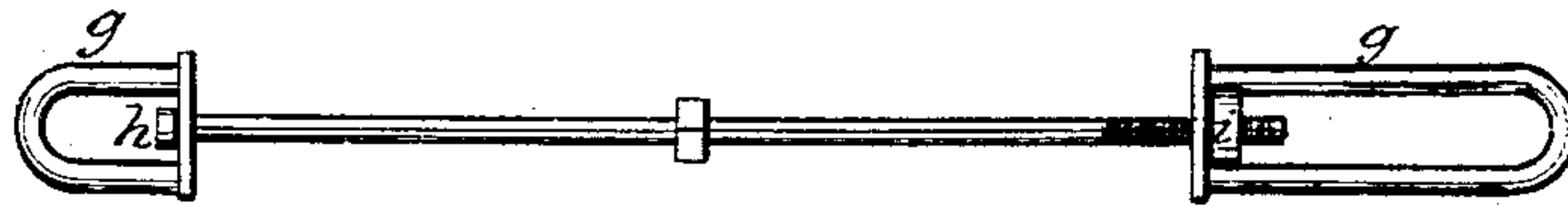


Fig. 2.



Witnesses.
Theo. Tusche.
J. A. Service.

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attys

United States Patent Office.

ELISHA P. CRAIN, OF NEW YORK, N. Y.

Letters Patent No. 68,490, dated September 3, 1867.

SCALE-BEAM.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ELISHA P. CRAIN, of the city, county, and State of New York, have invented a new and useful improvement in Scale-Beams; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side view of the same.

Figure 2 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a device for strengthening the graduated lever used on platform or counter-scales, so that the same may be held in its scaled position, and will remain in the same.

The invention consists in the use of a wrought-iron rod, which is arranged above the beam, between the front bent-up end of the beam which holds the counterpoise beam and the stud projecting above the poise bearing, to hold the front end of the adjusting weight. Said rod is so arranged that it can be drawn more or less tight, and will sustain the beam in its scaled position, so that the scales can be used until the bearings are worn.

The graduated brass levers used on all scales are not strong enough to remain as adjusted to the standard. On being used these scales are soon out of order, not on account of the wearing of the bearings, but because the counterpoise bearing falls below the scaled line.

A represents a scale-beam of usual construction, in which the steelyard-rod bearing *a*, the poise bearing *b*, and the counterpoise bearing *c* are arranged and adjusted in the usual manner. Two studs, *d* and *e*, project from the rear end of the lever to hold the screw-rod B, on which the adjusting weight *j* is arranged. Around the stud *e*, and over the front bent portion *f* of the lever, are laid links *g g*, between which a rod, C, is arranged. Said rod C has a head, *h*, on one end, and is thereby held in one link, while at the other end it is secured by a nut, *i*, fitting around the screw end of the rod, so that the same, when turned, can be adjusted to hold the beam A in the standard position. The front part of the beam A can now not fall below the scaled line *x x*, and the scales will be true until the edges of the bearings are worn.

Instead of being made of one piece, the rod C may be made of two pieces, which are nailed in one nut, having a differential screw-thread, and the length of the rod can then be adjusted by turning the said nut.

I claim as new, and desire to secure by Letters Patent—

The tie-rod C, arranged above a scale-beam between the stud and front part *f*, substantially as and for the purposes herein shown and described.

ELISHA P. CRAIN.

Witnesses:

WM. F. McNAMARA,

ALEX. F. ROBERTS.