No. 733,297. PATENTED JULY 7, 1903.

C. G. STRUBLER.

SCALE BEAM.

APPLICATION FILED MAY 27, 1901.

NO MODEL.

Fig. 1

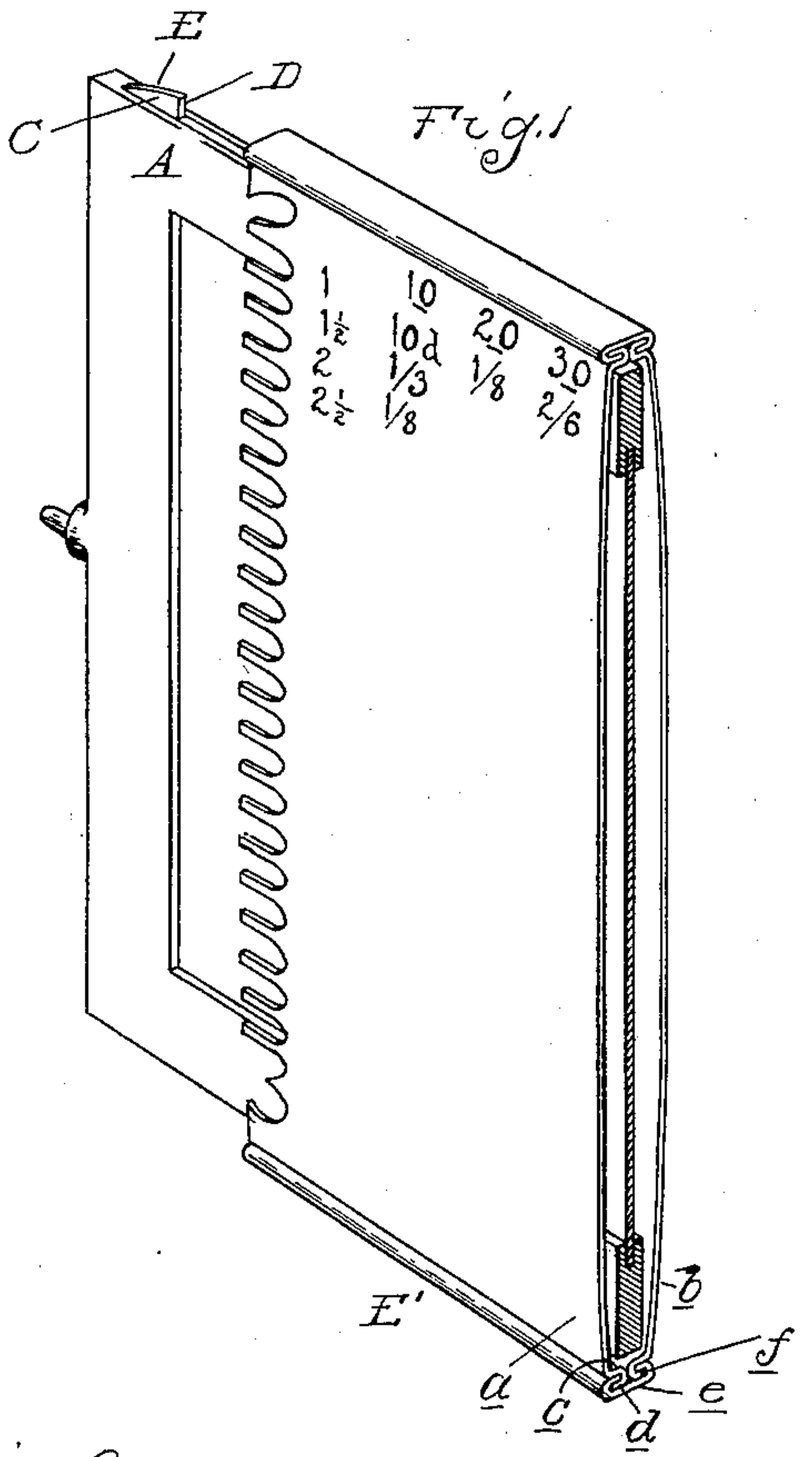


Fig. 4

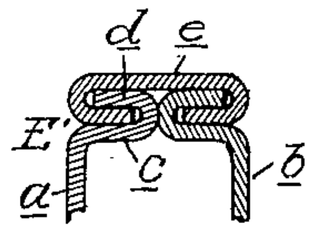


Fig. 2.

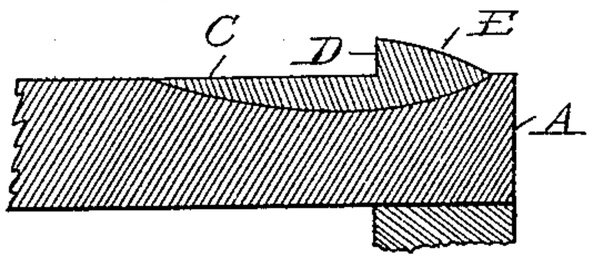
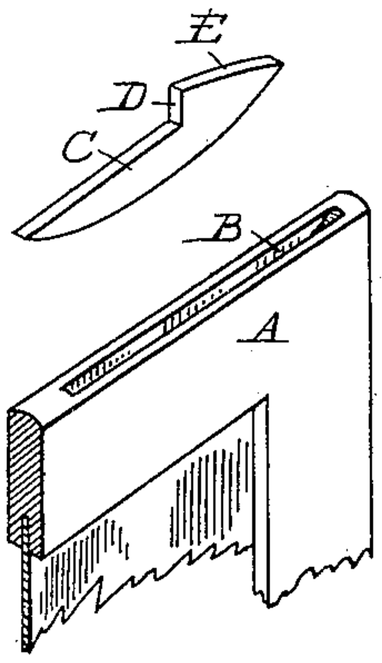


Fig. 3.



Witnesses
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Attys.

No. 733,297. Patented July 7, 1903.

UNITED STATES PATENT OFFICE.

CHARLES G. STRUBLER, OF DETROIT, MICHIGAN.

SCALE-BEAM.

SPECIFICATION forming part of Letters Patent No. 733,297, dated July 7, 1903.

Application filed May 27, 1901. Serial No. 62,068. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. STRUBLER, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Scale-Beams, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to scales, and has more particular reference to the construction of a beam intended for use in a computing-scale.

The invention consists in the peculiar construction of a poise, and, further, in the construction and manner of securing the stops at opposite ends of the beam for limiting the movement of the poise.

In the drawings, Figure 1 is a perspective view of a portion of the beam, showing the poise in engagement therewith. Fig. 2 is a longitudinal section through one end of the beam, illustrating the stop for limiting the poise. Fig. 3 is a perspective view of the parts shown in Fig. 2 detached. Fig. 4 is an enlarged cross-section through a portion of the poise.

The beam to which my improvements are applied is especially designed for use in computing-scales of that type having a flat rotary computing-chart and a poise slidable upon said chart. The latter has marked thereon the units of value, while the chart carries the computations for each of said units arranged in line therewith. Heretofore beams of this character have been formed comprising a substantially rectangular metallic frame having a panel secured therein which carries the computations. The poise has been formed of two sections of sheet metal joined together at top and bottom by soldering to form a loop embracing the beam, and disengagement of the poise is prevented by stop-pins arranged at opposite ends of the beam and projecting from the edge thereof. With such constructions it has been found that the stop-pins are liable to be broken off, as they are necessarily limited in size by the thickness of the beam.

In the present construction a stop is formed by a shoulder cut in a flat piece of metal, the latter being mortised into the edge of the beam, as shown in Fig. 2.

In detail, A is the edge bar of the beam. B is a longitudinal slot or mortise formed therein, preferably of segmental form, made by sawing into the edge of the beam.

C is a plate of flat metal of a width to fit into the slot or saw-kerf B, which plate is of a segmental form corresponding to said slot and is provided with a shoulder D, adapted to project outward beyond the slot when the plate is placed therein. Beyond the shoulder D is a portion E of the plate tapered down to the edge of the beam. The plate thus formed is placed in the groove and secured therein preferably by soldering. With this construction a strong stop is formed, as the width of the metal beyond the shoulder D is very much greater than the thickness of the beam. At the same time the plate C is securely attached to the beam by reason of the large surface to which the solder adheres.

E′ is a poise which is of the following construction: *a* and *b* are two plates forming, respectively, two sides of a loop encircling the beam. At their ends these sides are bent inwardly at *c* and then outwardly again to form hooks or return-bends *d*. *e* is a top plate having the inwardly-turned hooks or flanges *f*, adapted to engage with the hook *d* and lock the two plates *a* and *b* together. Thus when the parts are pressed together the complete loop is formed having the top and bottom portions thereof formed of several thicknesses of sheet metal.

What I claim as my invention is—

1. The combination with a scale-beam and a poise thereon, of a stop for limiting the movement of said poise comprising a segmental metallic plate of lesser thickness than the beam mortised into a correspondingly-shaped slot in the edge of said beam and soldered therein, said plate having an outwardly-projecting portion formed with a square shoulder and tapering portion beyond said shoulder.

2. The combination with a scale-beam, of a poise therefor comprising two plates arranged on opposite sides of the beam and having hooked flanges at their edges and edge plates provided with complementary hooks adapted to engage with the flanges of said side plates to form a closed loop.

3. The combination with a scale-beam, of a poise therefor comprising plates arranged

on opposite sides of said beam and having return-bend flanges projecting over the edges of said beam and edge plates provided with oppositely-bent flanges having a clench engagement with said return-bend flanges to form of said poise a closed loop encircling the beam.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES G. STRUBLER.

Witnesses:
M. B. O'DOGHERTY,
H. C. SMITH.