

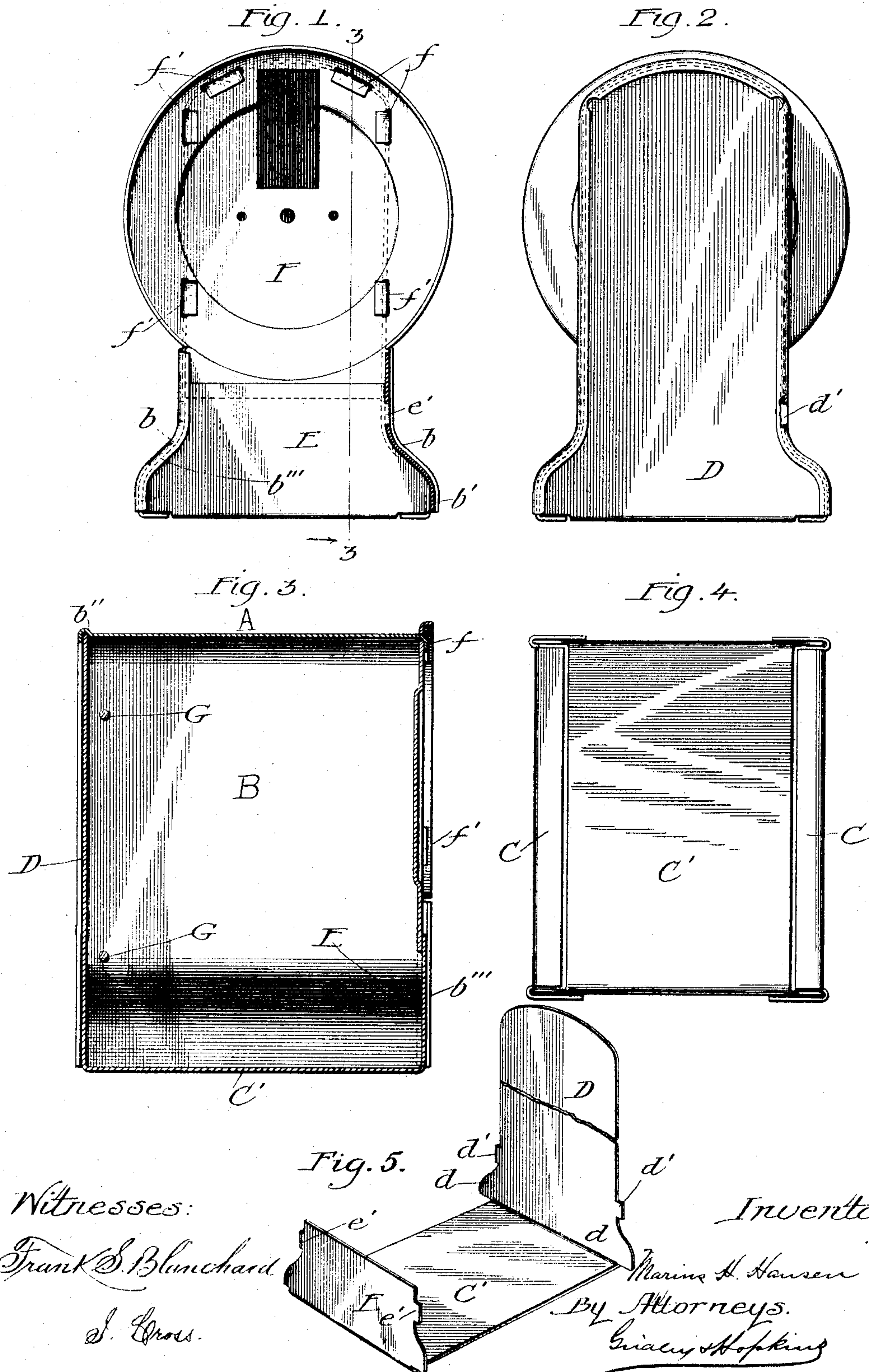
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Patented Sept. 5, 1899.

M. H. HANSEN.
CASE FOR WEIGHING SCALES.

(Application filed Mar. 7, 1898.)

(No Model.)



UNITED STATES PATENT OFFICE.

MARIUS H. HANSEN, OF CHICAGO, ILLINOIS.

CASE FOR WEIGHING-SCALES.

SPECIFICATION forming part of Letters Patent No. 632,525, dated September 5, 1899.

Application filed March 7, 1898. Serial No. 672,868. (No model.)

To all whom it may concern:

Be it known that I, MARIUS H. HANSEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Scale-Cases, of which the following is a specification.

The present invention relates to a case for scales of the class shown and described in my United States Letters Patent No. 612,968, issued to me October 25, 1898; and its object is to provide for scales of this class a case which is simpler and cheaper in its construction and at the same time superior to cases as heretofore made.

According to the present invention the case is not constructed upon a separate base; but, on the contrary, the base is made out of the same pieces of metal of which the sides and ends of the case are made, and in addition to this the entire case, including the base and rear wall of the dial-case, is made up of only three pieces.

The invention consists in the features of novelty that are hereinafter fully described, and in order that it may be fully understood I will describe it with reference to the accompanying drawings, which are made a part hereof, and in which—

Figure 1 is a front elevation of a scale-case constructed in accordance with the invention, the front of the dial-case being omitted and one of the sides of the case being shown partly in section. Fig. 2 is a rear elevation thereof.

Fig. 3 is a longitudinal section thereof on the line 3 3, Fig. 1. Fig. 4 is an under side view thereof. Fig. 5 is a perspective view of a single piece of metal which forms the back and parts of the bottom and front of the case.

The top A, the two sides B, and intumed flanges C at the lower margins of the sides are all formed of a single piece of sheet metal bent to shape, which is indicated in Figs. 1 and 2—that is to say, the part of the sheet which forms the top is preferably rounded.

The parts which form the sides are preferably straight (save that they may be paneled or otherwise embellished for ornamental purposes) down to points near the bottom, below which they are of ogee shape, as shown at *b*; the upper curves (viewed from the outside of the case) being concave and merging with

the straight portions above them and the lower curves being convex and merging with straight portions *b'* below them, below which latter the metal is bent inward to form the strengthening-flanges C. At their rear margins the top and sides are beaded to provide an internal groove *b''* for receiving the margin of the back D of the case, the marginal flange resulting from the groove overlapping the edges of the back and lying against the outer face thereof. The lower portion of the back is extended laterally, as shown at *d*, to complement the described ogee shape of the lower portions of the sides. The object of this construction is to provide the case with a broad base which is integral with the walls of the case and thus avoid the necessity for a separate base-piece. The bottom C of the case and a portion E of the front of the case are integral with the back D, all of these parts being formed of a single piece of sheet metal of the required outline bent twice at right angles, as shown more clearly in Figs. 3 and 5.

The portion E, which enters into the construction of the front of the case, corresponds in shape with the lower portion of the back D, and to the extent of this portion E of the front of the case the front margins of the sides B are provided with internal grooves *b'''* similar to the grooves *b''* and marginal flanges similar to the marginal flange already described. The remainder F of the front of the case is formed of a piece of sheet metal, which also forms the back of the dial-case. It is provided with suitably-disposed openings for receiving tongues *f*, projecting forward from the top A, and tongues *f'*, projecting inward from the sides B, said tongues being bent over against the part F, as shown more clearly in Fig. 1. Thus the part F, through the medium of the tongues *f'*, and especially the lower of them, holds the two sides B of the case in parallelism, and at the same time the elasticity of the metal of which the sides are made is sufficient to allow them to spring apart to a limited extent at bottom. This enables the back D and lower portion E of the front of the case to be slipped into place by a relative upward movement and enables the lower portions of the sides to spring apart far enough to allow tongues *d'* and *e'* on the parts D and E to

reach and enter corresponding openings formed in the beads of the sides B. The elasticity of the metal of which the sides are made is sufficient to restore their lower portions to normal position after the tongues have reached and entered the openings, and this alone may, if desired, be relied upon for holding the parts together, and in this case the back, bottom, and lower portion of the front may be easily and quickly removed to give access to the interior of the case. I prefer, however, to use some additional means for holding the lower portions of the sides together. To this end the extremities of the tongues *d'* and *e'* may, if desired, be upset or bent over, or the extremities of a pair of rods G, which pass through perforations in the sides B, may be riveted or upset. These rods provide fulcrums for the parallel levers of the weighing mechanism and constitute the means whereby said mechanism is attached to and supported by the sides of the case; but these levers are not shown, since the invention is in no wise concerned with them. They are, however, fully shown in my application aforesaid, and, furthermore, their construction and disposition are fully understood by those skilled in the art.

The advantages of a scale-case constructed as described are that it is of simple and cheap construction. It is slightly in appearance. It is exceedingly strong and durable, and by reason of the fact that it may be left open on three sides—to wit, the front, the back, and the bottom—during the process of inserting therein the weighing mechanism, it affords great facility in manufacturing the scale. This is an important feature of the invention, and in order to take full advantage of it the mechanism which is inclosed by the case is put in place before the upper portion F of the front is put in place.

An important feature of the invention is the broad strong base resulting from the outward deflection of the lower portions of the sides and the inturned flanges.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

50 1. As a new article of manufacture, a scale-case having a top and sides formed of a single piece of sheet metal bent to the required shape, the lower portions of the sides being deflected outward to provide a broad base,

the rear margin of the top and sides being provided with an internal groove and the front margins of the lower portions of the sides being provided with a similar groove, a back formed of a single piece of sheet metal following the contour of the top and side and fitting at its edges in the groove aforesaid, a front the lower portion of which follows the contour of the lower portions of the sides and the edges of which occupy the groove aforesaid, and a bottom integral with the front and back portions aforesaid, substantially as set forth.

2. As a new article of manufacture, a scale-case having a top and sides formed of a single piece of metal bent to the required shape, the lower portions of the sides being deflected outward to provide a broad base, a front formed in two parts the upper part forming also the back of the dial-case and being provided with openings, bent tongues proceeding forward from the sides and occupying said openings, a back following the contour of the top and sides and a bottom integral with the back and the lower part of the front, the lower part of the front and the back being provided with tongues and the margins of the sides being provided with corresponding openings for receiving said tongues, substantially as set forth.

3. As a new article of manufacture, a scale-case having a top and sides formed of a single piece of sheet metal bent to the required shape, the lower portions of the sides being deflected outward to provide a broad base, below which the metal is deflected inward to form flanges, the rear margins of the top and sides being provided with an internal groove and the lower portions of the front margins of the sides being provided with a similar groove, a front formed of two parts, the upper part being provided with openings for receiving bent tongues projecting forward from the sides and the lower part being shaped to follow the contour of the lower portions of the sides, a back following the contour of the top and sides, and a bottom integral with the back and the lower part of the front, substantially as set forth.

MARIUS H. HANSEN.

Witnesses:

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