

No. 667,835.

Patented Feb. 12, 1901.

S. WEISS.

BOX WITH CONNECTED WEIGHING DEVICE.

(Application filed Apr. 10, 1900.)

(No Model.)

Fig. 1.

Fig. 2.

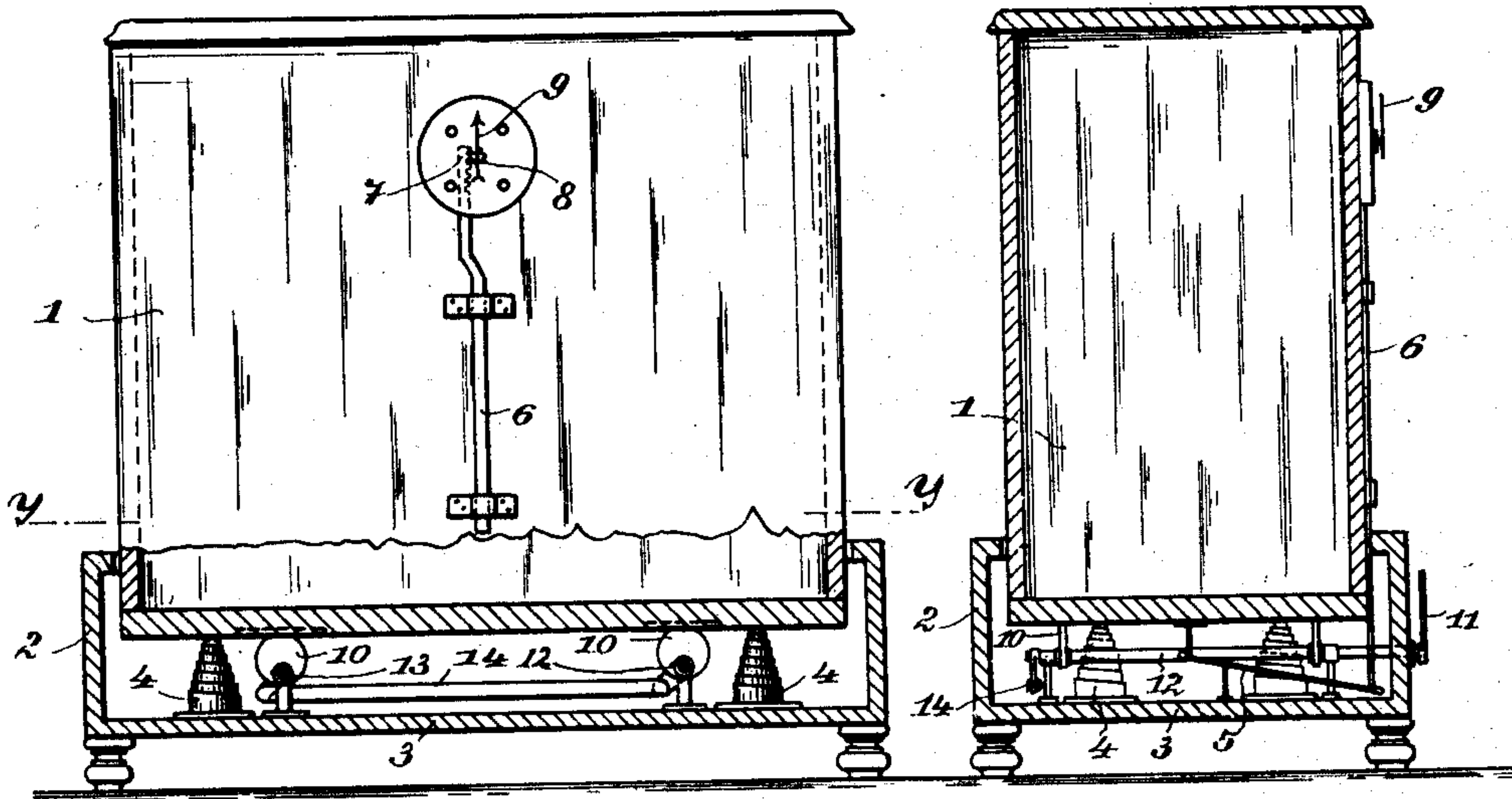
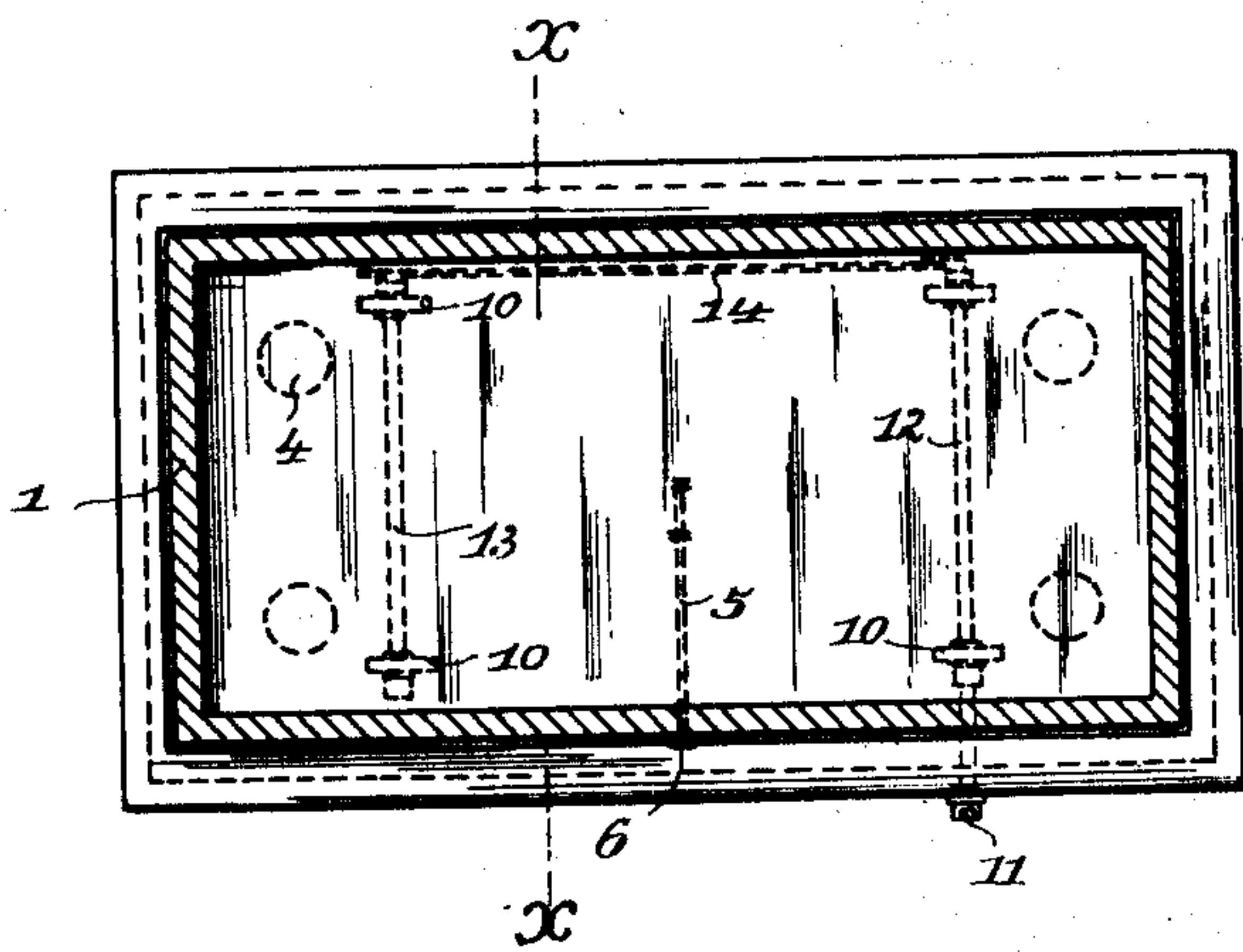


Fig. 3.



Witnesses:
Wilhelm Vogt
Thomas M. Smith.

Inventor:
Salomon Weiss,
J. Walter Smyth
Attorney.

UNITED STATES PATENT OFFICE.

SALOMON WEISS, OF VIENNA, AUSTRIA-HUNGARY, ASSIGNOR TO SALOMON BERGER, OF AGRAM, AUSTRIA-HUNGARY.

BOX WITH CONNECTED WEIGHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 667,835, dated February 12, 1901.

Application filed April 10, 1900. Serial No. 12,291. (No model.)

To all whom it may concern.

Be it known that I, SALOMON WEISS, a subject of the Emperor of Austria-Hungary, residing at Vienna, Austria-Hungary, have invented certain new and useful Improvements in Boxes or Cases and Combined Weighing Devices, of which the following is a specification.

This invention relates to boxes or cases having connected weighing devices; and its object is to provide means for controlling in a simple manner the weight of any material filled into a box or case and for ascertaining at any moment desired the weight of the contents of such box or case.

The invention therefore consists in the novel arrangement and combination of parts, as hereinafter more fully described, and illustrated, by way of example, in the accompanying drawings, in which—

Figure 1 is a front elevation, partly in vertical section, of a box or case and connected weighing device constructed and arranged in accordance with this invention; Fig. 2, a transverse vertical section on the line *xx* of Fig. 3, and Fig. 3 a horizontal section taken on the line *yy* of Fig. 1.

As shown in the drawings, the box or case 1 is mounted on springs 4, provided at the bottom 3 of a second box or casing 2, the latter forming, as it were, the bed portion of the whole structure.

In order to allow of the weight of the contents of the box or case 1 being indicated by the movements of the latter, caused by the depression of the springs under the action of such weight, these movements are transmitted, by means of a system of levers, to a needle or pointer which moves along a scale or graduation, thereby indicating the weight. The particular arrangement of the lever system for transmitting such movements may be varied in many ways and adapted to the manner in which the box or case 1 is mounted within its bed or casing 2. In the construction shown in the drawings this arrangement is as follows: In a standard or bracket provided at the bottom 3 of the said bed or casing 2 is fulcrumed the lever 5, Fig. 2, connected at one end with the bottom of the box or case 1 and at the other end to a rod 6, which slides in suitable guides on the face of the

box 1. The upper end of the latter, as shown in Fig. 1, is formed as a rack 7, engaging with a pinion 8 on the axis of a needle or pointer 9, which moves along a graduation provided on the front side of the box or case 1. The parts are so geared that the largest possible movement of the box or case 1 will cause the needle or pointer to move only to the extent of one complete circle.

In the operation of the device the springs 4 are compressed more or less in accordance with the greater or smaller weight of the contents of the box or case 1. This determines the position of the box or case itself, and this position results in the indication of the weight on the graduation through the needle or pointer.

The improved box or case, with its connected weighing device, is particularly well adapted for use in connection with coal, and although not intended for furnishing absolutely correct indications it will serve for controlling the correct weight of the coal supplied. Of course the invention may also be employed to advantage for other materials, such as oats and the like.

To provide means for normally relieving the springs 4, a number of cams 10 are mounted between the bottom portions of the box or case 1 and its bed or casing 2. In the higher position of these cams, as shown in Figs. 1 and 2, they support the bottom of the box or case 1, thereby relieving the springs 4 of the weight. When it is desired to ascertain the weight of the contents, the cams are rotated to the extent of half a circle by moving an arm or lever 11, which projects from the bed or lower casing 2, and the box or case 1 will then rest on the springs 4 and will operate in the manner described. The said lever or arm 11 may be arranged to admit of being removed. The shafts 12 and 13, which carry the cams 10, are connected by a rod 14, so that the cams may all be operated by a single movement of the hand.

It is obvious that other means than those above described may be employed for relieving the springs 4.

The distinguishing feature of my invention resides in the fact that the pointer 9, pinion 8, rack 7, and rod 6, constituting the weight-

indicating device, are secured to the case 1, in which the article to be weighed is placed, and that the arm or lever 5, which operates the rod 6, has a fulcrum point independent of the box or case 1. The box or case and the weighing mechanism form one complete whole, resting upon the springs 4. The resistance of these springs is transmitted, through the lever 5, to the rod 6 and pointer 9 to indicate the weight of the contents of the box 1. If the fulcrum point of the lever 5 be a knife-edge, the lever 5 may readily be disengaged and the entire box and weighing apparatus be removed from the springs 4 to enable said springs to be replaced or repaired.

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

In a combined box or case and weighing device, a movable box or case, the weight of the contents of which is to be determined, a fixed box or case within which the movable box or case is adapted to move, a series of

springs secured within the fixed box or case and supporting the movable box or case, a fulcrum fixed to the fixed box or case, a lever-arm supported on said fulcrum and connected at one end to the base of the movable box or case, a rod sliding over the front of the movable box or case and connected to the other end of the lever-arm, a pointer pivoted to the front of the movable box, a pinion controlling said pointer, and a rack formed on the rod and meshing with said pinion, said pinion, pointer, rod and rack being all carried by the movable box, substantially as and for the purposes described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

SALOMON WEISS.

Witnesses:

WILHELM DEIBNA,
ALVESTO S. HOGUE.