

No. 619,478.

Patented Feb. 14, 1899.

P. HAMMACHER.

ALARM SCALE.

(Application filed Oct. 29, 1898.)

(No Model.)

Fig. 1.

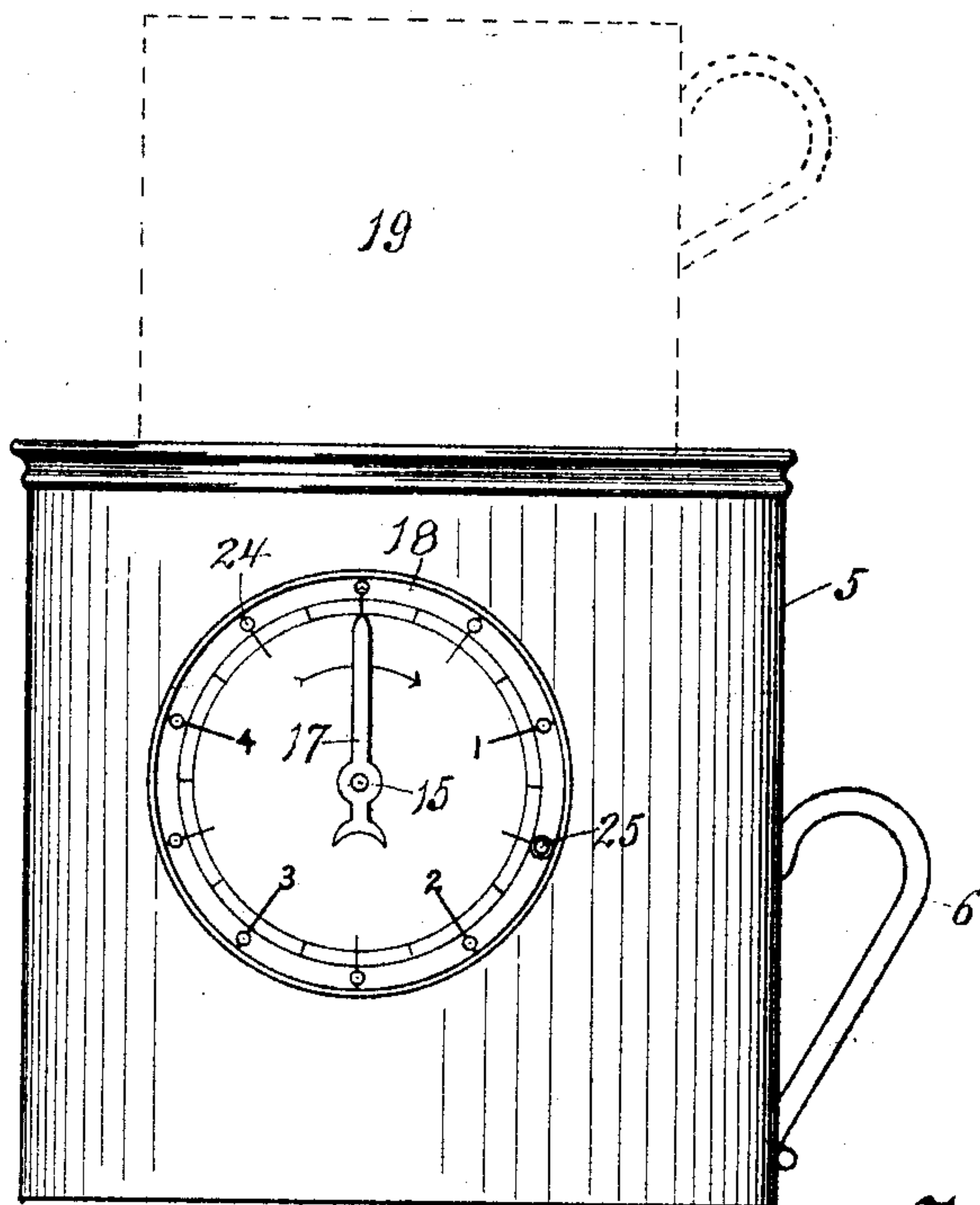


Fig. 2.

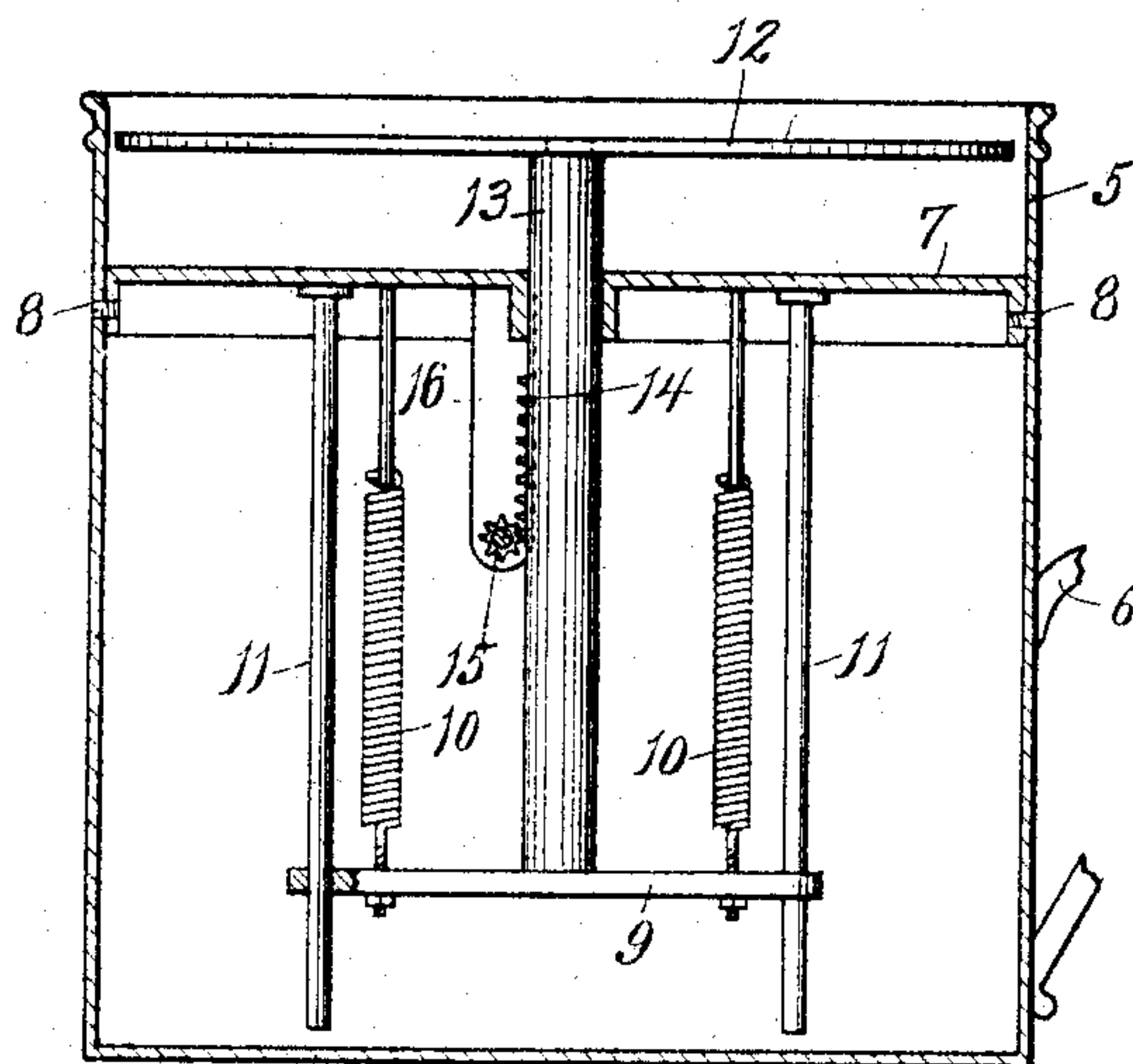


Fig. 3.

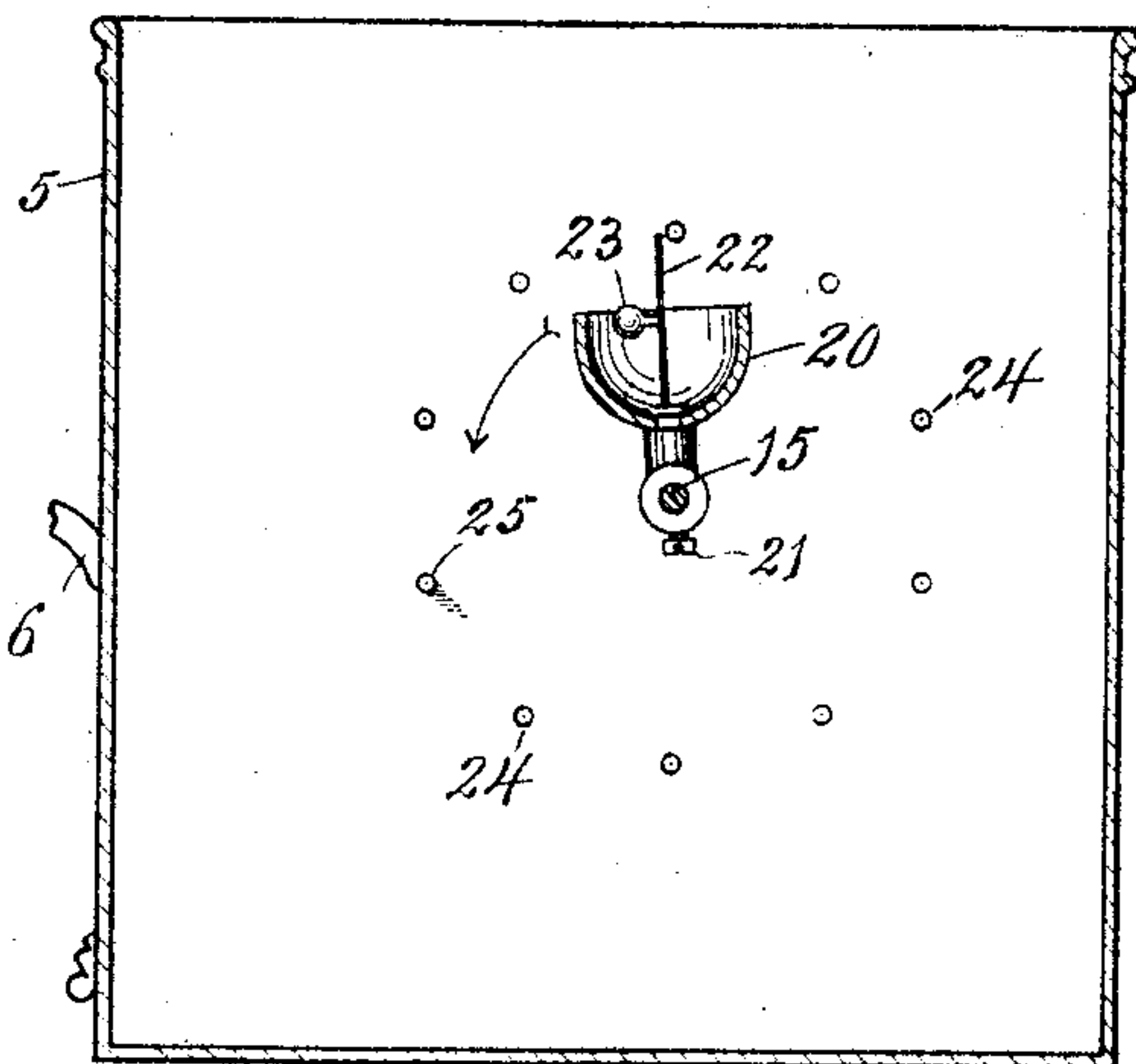
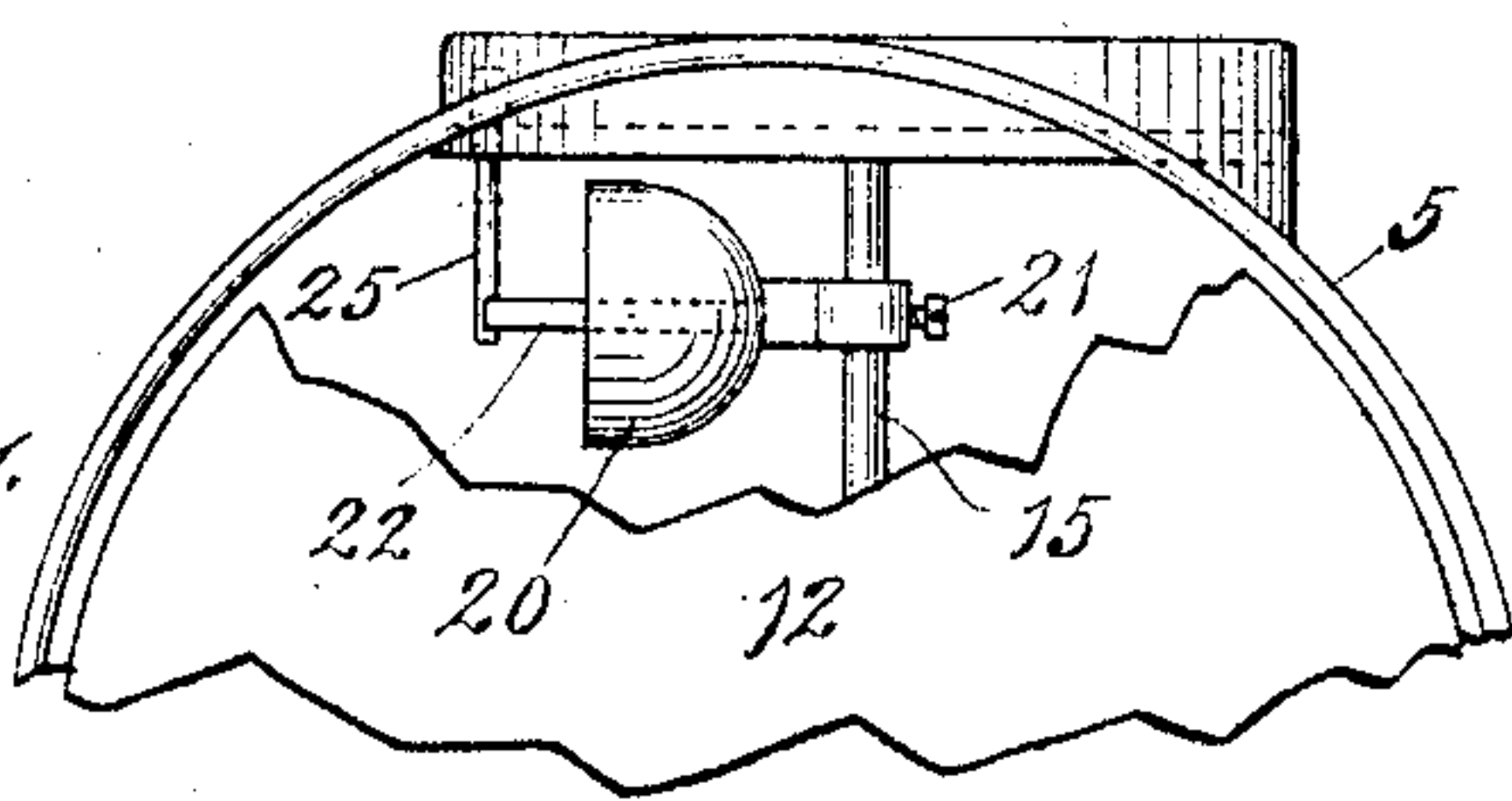


Fig. 4.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## ALARM-SCALE.

SPECIFICATION forming part of Letters Patent No. 619,478, dated February 14, 1899.

Application filed October 29, 1898. Serial No. 694,914. (No model.)

*To all whom it may concern:*

Be it known that I, PETER HAMMACHER, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Alarm - Scales, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

The object of my invention is to provide an improved alarm-scale especially adapted for the use of persons who have to quickly and rapidly weigh or measure liquid or granular material.

The invention is exhibited in the drawings in connection with a construction that is specially adapted for the measure of beer in mugs or similar vessels.

The invention consists of the apparatus, its parts, and combinations of parts, as herein described and claimed, or their equivalents.

In the drawings, Figure 1 is an elevation of my improved alarm-scale. Fig. 2 is a transverse vertical section of the apparatus shown in Fig. 1. Fig. 3 is a vertical transverse section of the alarm-scale, showing features of the construction from the rear on the inside of the front portion of the case shown in Fig. 1. Fig. 4 is a top plan view of a fragment of the apparatus, parts being broken away for convenience of illustration.

In the drawings, 5 is a cup-shaped portable case open at the top and provided with a handle 6. In the case near the top a transverse truss or bridge 7, which is preferably of disk form, having a laterally-turned peripheral flange, is secured detachably to the case by screws 8. Below the bridge 7 a bar or cross-piece 9 is suspended from the bridge 7 by coiled-wiresprings 10 10. The cross-piece 9 is guided in its movements vertically by guide-rods 11 11, fixed to the bridge 7 and projecting downwardly therefrom. A movable scale-platform 12, fixed centrally on the post 13, is free to move vertically in the case above the bridge 7. The post 13 passes movably through the bridge 7 and is fixed at its lower extremity in the cross-piece 9.

It will be understood that any weight placed on the scale-platform 12 will cause the springs 10 to yield, and the platform will thereby be more or less depressed. To determine the extent of the depression of the platform, a rack

14 is provided on the post 13, and a pinion on a shaft 15 meshes therewith. The shaft 15 has its bearings at one end in a bracket 16, 55 depending from the bridge 7, and near the other extremity in the case 5, through which it passes, and carries an index-finger 17 on its outer extremity. An annular index 18 is divided by appropriate marks into divisions 60 and is provided with numerals indicating one or more units of measure. The construction of the apparatus is such that weights placed on the platform 12 will depress the platform and cause the index-finger 17 to correspond- 65 ingly rotate with reference to the index.

When this apparatus is used for weighing or measuring liquid material, it is accomplished by drawing or pouring the liquid into a mug or vessel 19, (indicated in dotted lines,) 70 which is set on the platform. For giving an alarm and thereby calling the attention of the attendant to the fact that any predetermined quantity of liquid has been drawn into the mug or vessel placed on the platform I provide 75 a bell 20, secured adjustably on the shaft 15 by means of a set-screw 21, which bell projects radially from the shaft and is provided with a fixed but elastic tongue 22, provided with a ball 23, adapted to strike the 80 bell when thrown against it by the resilience of the tongue. A series of apertures 24, arranged in circular position in the dial or index-face on the case 5, are adapted to receive a pin 25 therein, and this pin being inserted 85 in any one of these holes is adapted to be contacted by the tongue 22 as the bell swings past it, and thereby the tongue is pushed rearwardly a little, but immediately escapes therefrom as the bell moves onward, and the ball 90 23 is consequently thrown against the bell, sounding the alarm. The pin 25 can be inserted in a hole at any desired locality on the dial-plate, and thereby the alarm will be given when the platform is so depressed as to indi- 95 cate a weight thereon of the predetermined amount.

What I claim as my invention is—

1. The combination of a portable case, a bridge supported in the case, a platform sus- 10 pended by a post yieldingly from the bridge, a finger-shaft geared to and actuated by the movement of said post, a bell mounted on the finger-shaft provided with an elastic tongue

and means adapted to engage the bell-tongue and release it causing it to sound an alarm.

2. In an alarm-scale, the combination with a yielding platform, of a revoluble shaft actuated by the moving of the platform, a bell  
5 fixed on the shaft at a distance radially therefrom, an elastic tongue fixed in the bell and projecting therefrom, a ball on the tongue adapted to contact with the bell and means

on a relatively-fixed support adapted to automatically engage and release the tongue of the bell as the shaft rotates.

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

PETER HAMMACHER.

Witnesses:

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