

No. 672,027.

Patented Apr. 16, 1901.

G. W. ADAMS.
COIN CONTROLLED INDICATING MECHANISM.

(Application filed June 15, 1900.)

(No Model.)

FIG. 1.

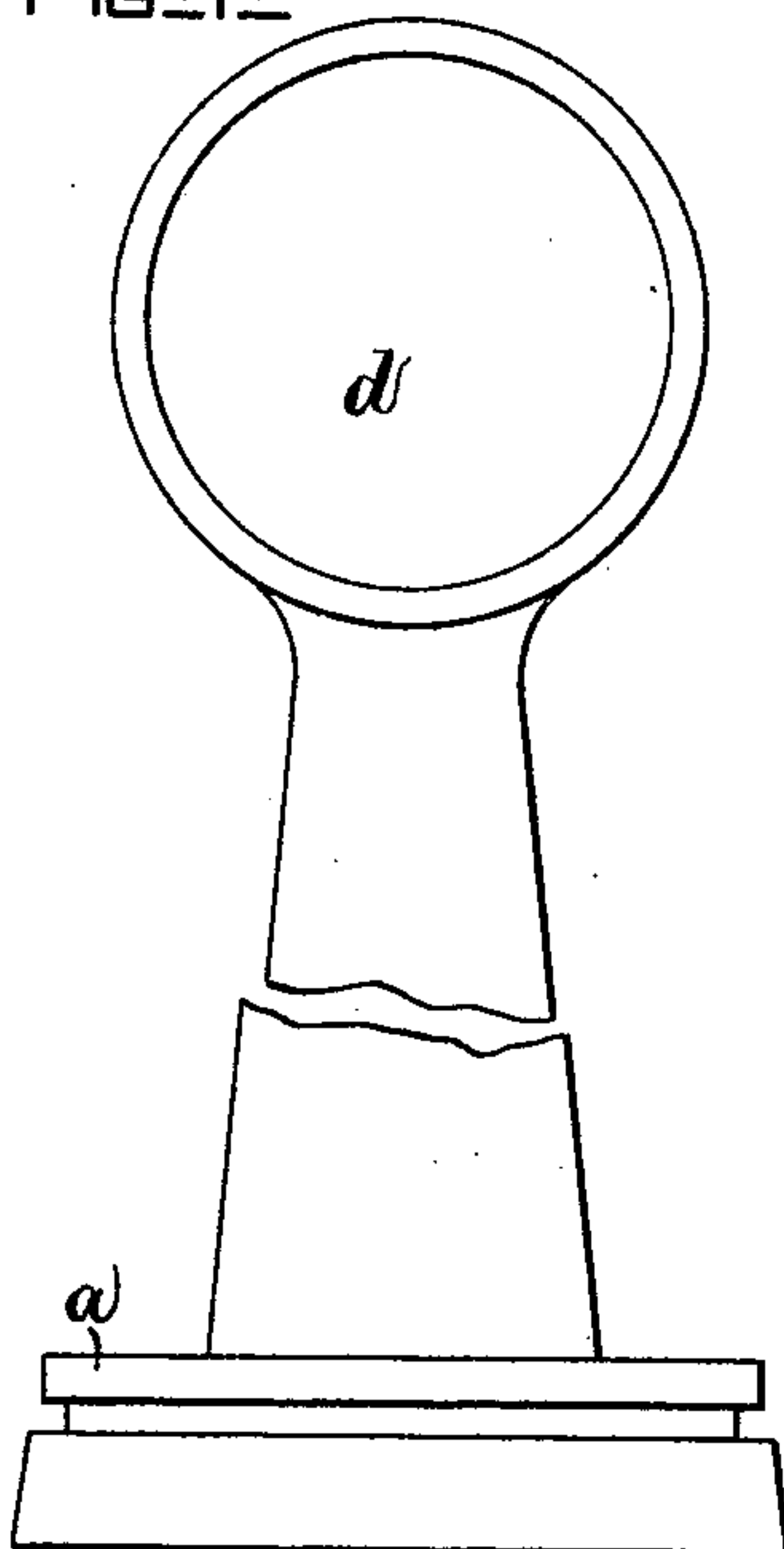
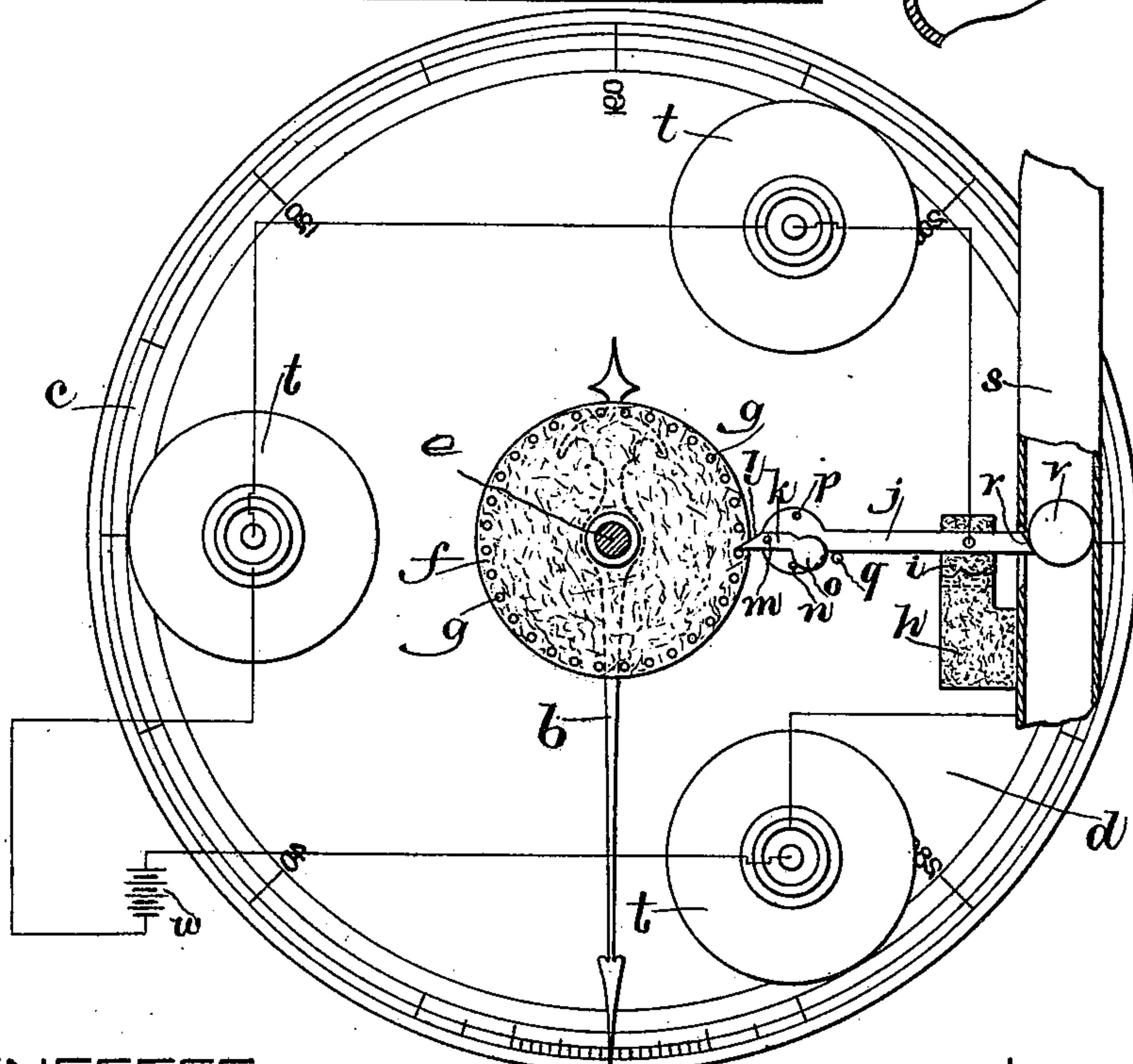
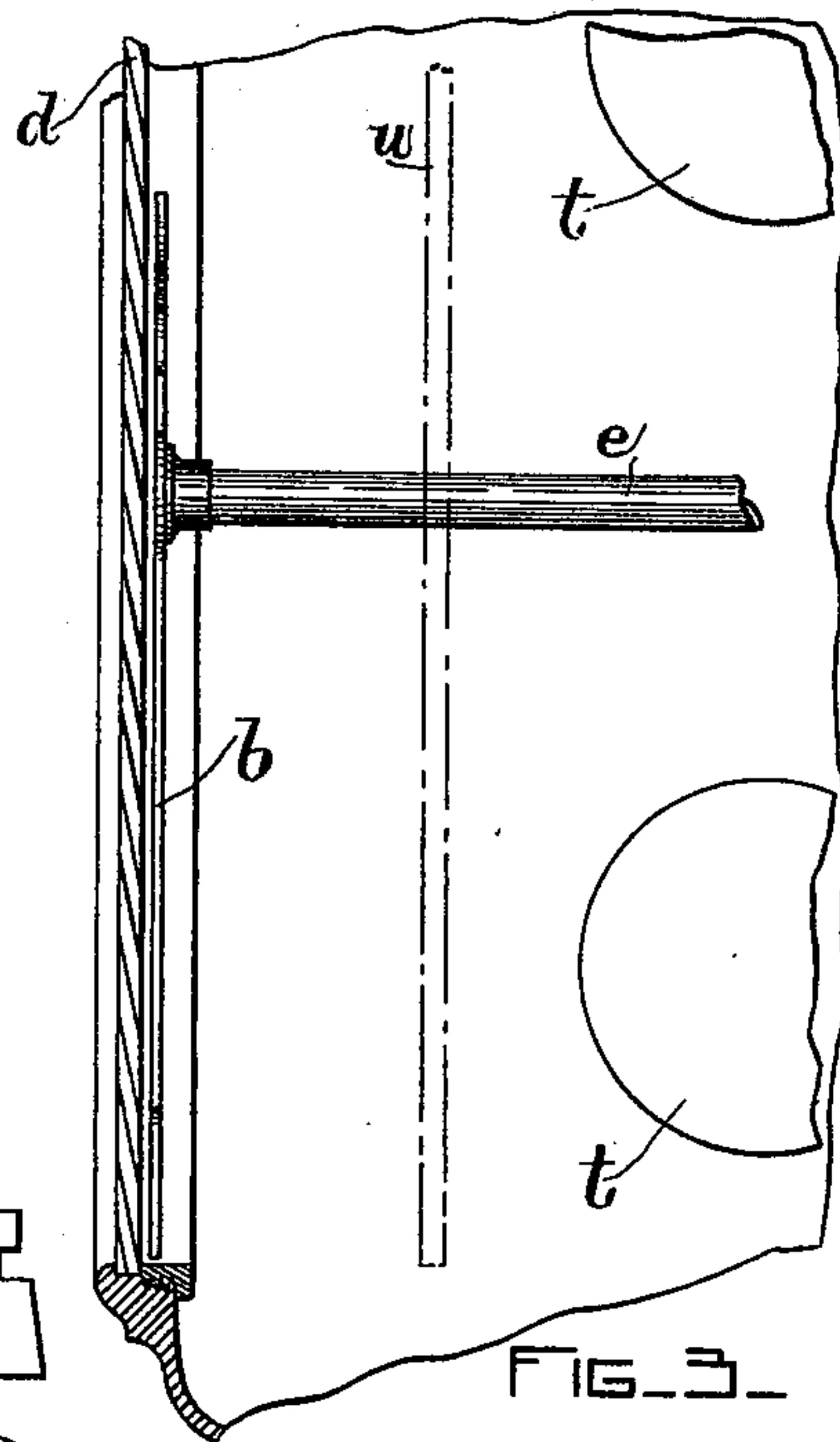
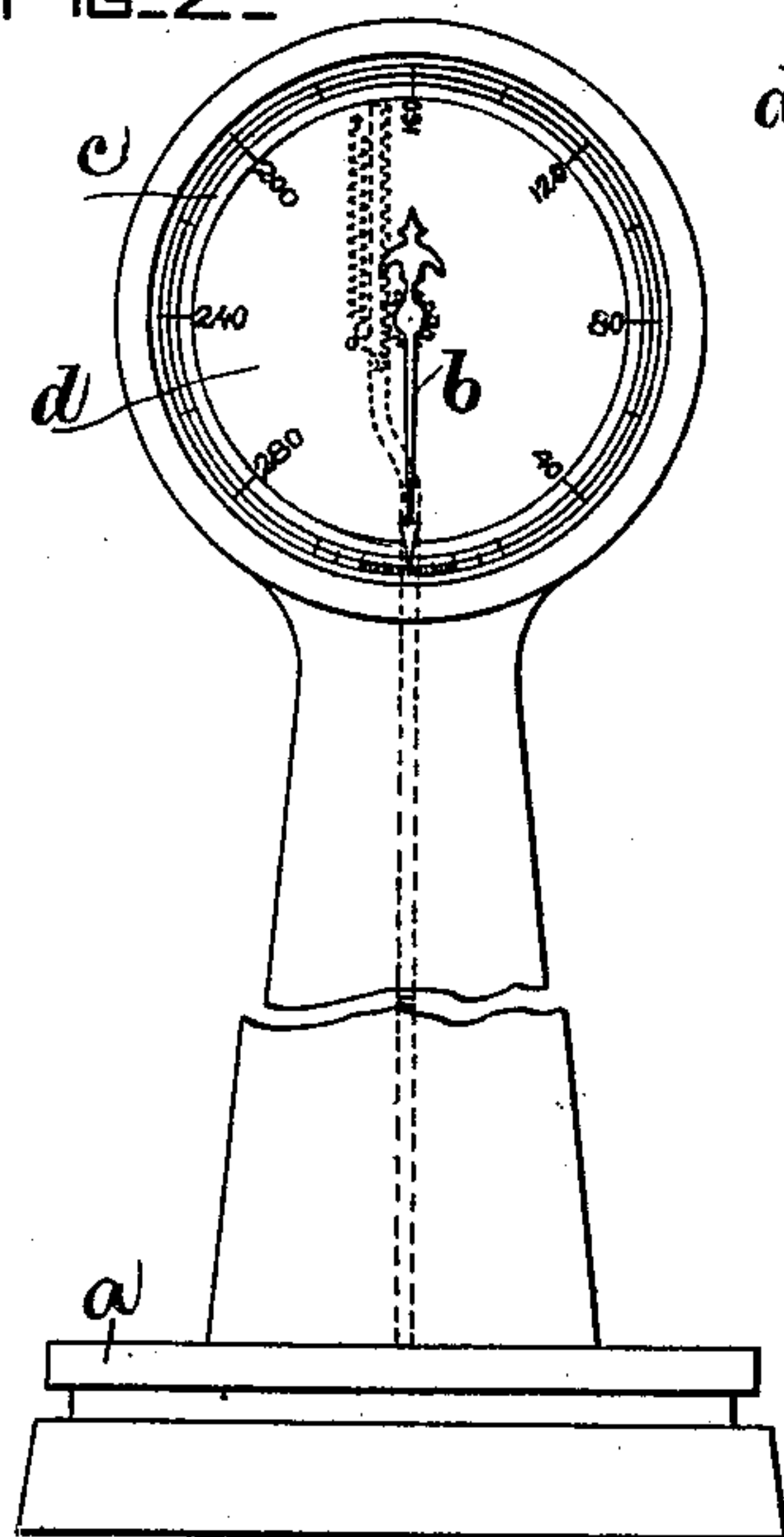


FIG. 2.



WITNESSES

A. O. Ome

B. M. Metmore.

FIG. 4.

INVENTOR

George W. Adams
By Chas. J. Howe
his atty.

UNITED STATES PATENT OFFICE.

GEORGE W. ADAMS, OF STOUGHTON, MASSACHUSETTS.

COIN-CONTROLLED INDICATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 672,027, dated April 16, 1901.

Application filed June 15, 1900. Serial No. 20,439. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. ADAMS, a citizen of the United States, residing in Stoughton, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Coin-Controlled Indicating Mechanism, of which the following, taken in connection with the accompanying drawings, is a specification.

10 This invention relates to devices for rendering an indicator (as of a machine) perceptible that is ordinarily concealed upon dropping into some portion of the mechanism a certain predetermined token.

15 For convenience of illustration I will describe my invention as applied to automatic weighing-machines of the type commonly exposed in public places. Machines of this character consist of a load-supporting platform connected with a load-resisting device, (often a spring,) the degree of stress being indicated on a dial by a pointer when a suitable token, as a coin of some particular value falling within the case, releases a detent that normally locks the mechanism, the intention being that but one thing shall be weighed for a given fee. It was quickly discovered that if another person stood on the platform before the one paying stepped off and then the first got down that an indefinite number might be weighed, so as to show directly on the indicating devices. My invention is intended to prevent this by having the pointer, dial, or both, invisible; but upon the payment of the fee a lamp is lighted within the case, so the dial and pointer are projected upon a translucent face, or a shade is withdrawn from a constantly-lighted jet to act in like manner, and sometimes the dial and pointer are made to appear at an ordinarily vacant transparent opening in an opaque face. Hence the invention consists of means to cause some essential indicating device that is ordinarily concealed to be visible upon depositing within the machine a prescribed fee, of means to again render the indicating devices invisible if a new load is substituted, in simplifying the construction of the machine by discarding the usual detent mechanism which has been heretofore used, and, further, of devices and their combinations that will be described in carrying the invention into effect.

In a preferred construction the dial is painted on the inner surface of the ground-glass face of the machine, the pointer is mounted close behind the glass, and back of both I place one or more lamps included in a normally open electric circuit that is intended to be closed by the token in its fall, which is checked by the terminals of the circuit for this purpose. To more evenly diffuse the light from the lamp or lamps, I sometimes interpose a translucent medium between the lamps and the indicator, and to prevent the dial from being even faintly visible until the fee is paid and the dial illuminated I may put another translucent glass outside of the dial-glass. Upon the arbor of the pointer is mounted a disk having closely set in its edge a row of pins, and a latch connected with one of the terminals extends into the path of the pins. If the pointer and pins move in the direction of increasing weight upon the platform, the latch merely snaps past the pins without releasing the token; but if the pins move in a retrograde manner the latch acts to separate the terminals enough to let the token fall and at once extinguishes the lights as the circuit is interrupted. It will be apparent that as long as weight is added the indicator is operative, but fails if the weight is diminished, so it becomes necessary to calculate to find the weight of more than one person, and, as the scale may be properly limited, two persons will ordinarily be unable to weigh themselves in this manner.

The drawings show in Figure 1 a view of the weighing-machine before the fee is paid; Fig. 2, the weighing-machine illuminated; Fig. 3, an enlarged detail of the indicating devices and lamps; Fig. 4, an enlarged rear view of the indicator, lamps, &c.

The platform *a* is connected so as to cause the pointer *b* to move over the dial *c*, which is painted upon the inner surface of the ground-glass face *d* in any convenient manner. Upon the arbor *e* of the pointer I mount a disk *f*, of fiber, and insert a series of pins *g* around the edge of the disk. A piece of fiber *h* pivotally supports in a slot *i* a lever *j*, forming a movable terminal of an electric circuit. At one end of the lever the latch *k*, having the beveled toe *l*, is pivoted at *m* and is retained normally in contact with the pin *n* by

the weight *o* or a spring, while it is limited in its motion by the pin *p*. The lever normally rests on an insulated pin *q*, so its beveled end *r* projects through a slot into the
 5 coin-tube *s*, but without touching the tube, which constitutes a fixed terminal for an electric circuit.

Suitably-placed lamps *t* render the dial and pointer visible from the outside at times, and
 10 to render the illumination more uniform I sometimes put a piece of ground glass *u*, forming a light-diffusing plate, between the indicating devices and the lamps.

To operate the machine, the person stands
 15 upon the platform *a*, which is connected by a rod or otherwise with any customary weighing mechanism that is adapted to operate suitable indicating devices, and the pointer
 20 *b* at once sweeps over the dial *c* to indicate the proper weight; but this is invisible till the person drops a coin *v* into the tube *s*, which, coming in contact with the end *r* of the lever *j* and the inside of the tube, closes the circuit of the source of current *w*, thus
 25 lighting the lamps *t*, when the dial *c* and the pointer *b* are at once apparent. The lamps are represented as in series, but any other grouping of the lamps that will show the indicating devices will answer as well.

30 While I have chosen to illustrate an embodiment actuated by electrical agencies, it should be understood that such are referred to merely as convenient, but are not necessarily essential, as any means that will attain
 35 the ends sought are within the scope of the invention.

Having described my invention, I claim and desire to secure by Letters Patent of the
 40 United States—

1. In a weighing-machine, a concealed dial

and a pointer connected with weighing mechanism arranged to be made visible by electric lights, a circuit including the lights terminating in a fixed coin-tube and a movable lever projecting into the tube to position a
 45 token to close the lighting-circuit, combined with a latch on the lever and pins connected with the pointer so that if the load decreases the pins will move the lever through the latch to permit the token to fall and break the light-
 50 ing-circuit, substantially as described.

2. In a weighing-machine, a translucent face, a dial, a pointer, electric lamps, weighing mechanism connected with a platform, an electric circuit connecting the lamps and
 55 a source of current with normally open terminals, that are arranged to intercept a coin to close the circuit and thereby render visible the dial and pointer through the translucent face, substantially as described. 60

3. In a weighing-machine, a dial on a translucent face, an invisible pointer arranged to travel in proportion to the load on its platform, electric lamps within the casing of the machine located to project the shadow of the
 65 pointer on the dial and a series of pins inserted in a disk on the arbor of the pointer, combined with a coin-tube forming a fixed terminal and a pivoted lever having a latch actuated by the pins forming a movable terminal of the lamp-circuit, substantially as described. 70

In testimony whereof I have hereunto subscribed my name this 7th day of June, A. D. 1900.

GEORGE W. ADAMS.

Witnesses:

A. O. ORNE,

B. M. WETMORE.