

(No Model.)

2 Sheets—Sheet 1.

F. C. LYNDE.

COIN CONTROLLED INDICATING APPARATUS.

No. 398,519.

Patented Feb. 26, 1889.

FIG:1.

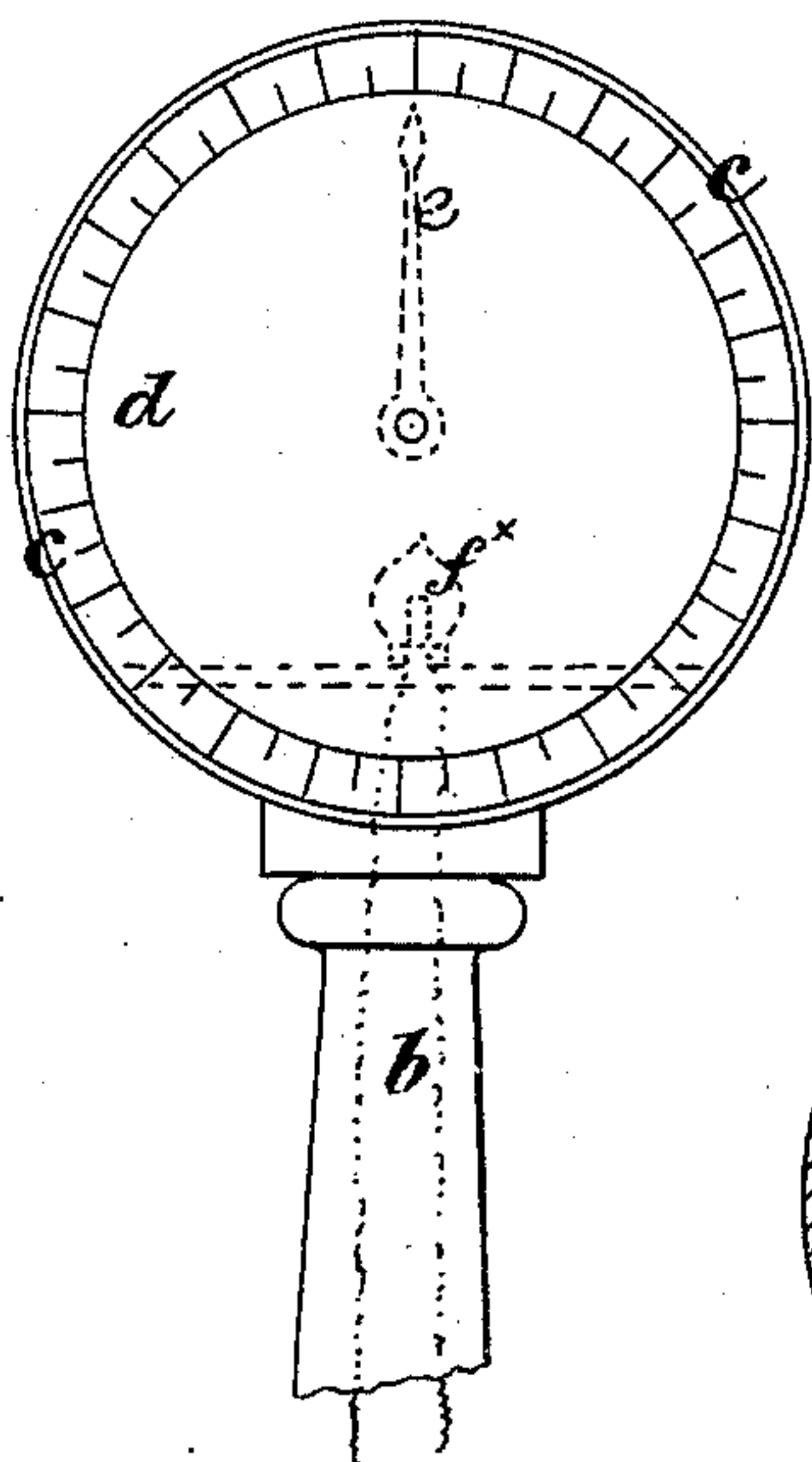


FIG: 5.

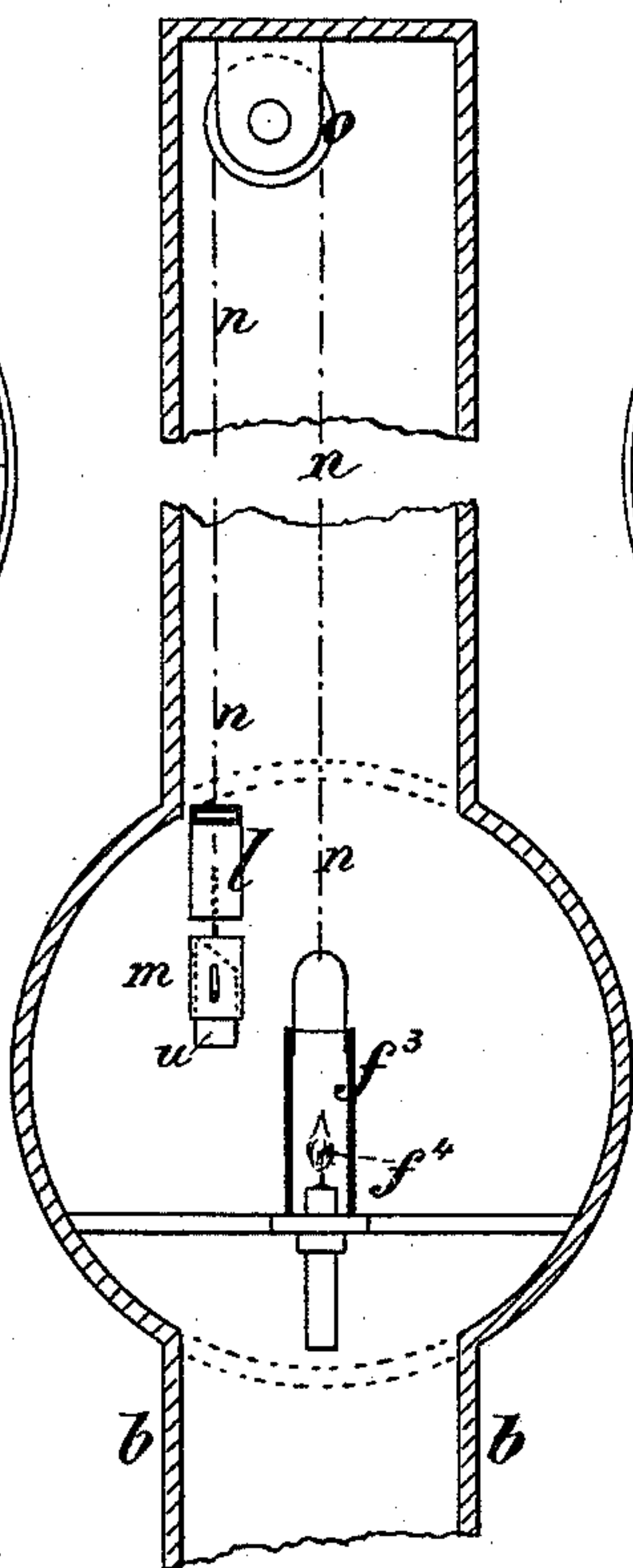


FIG: 2.

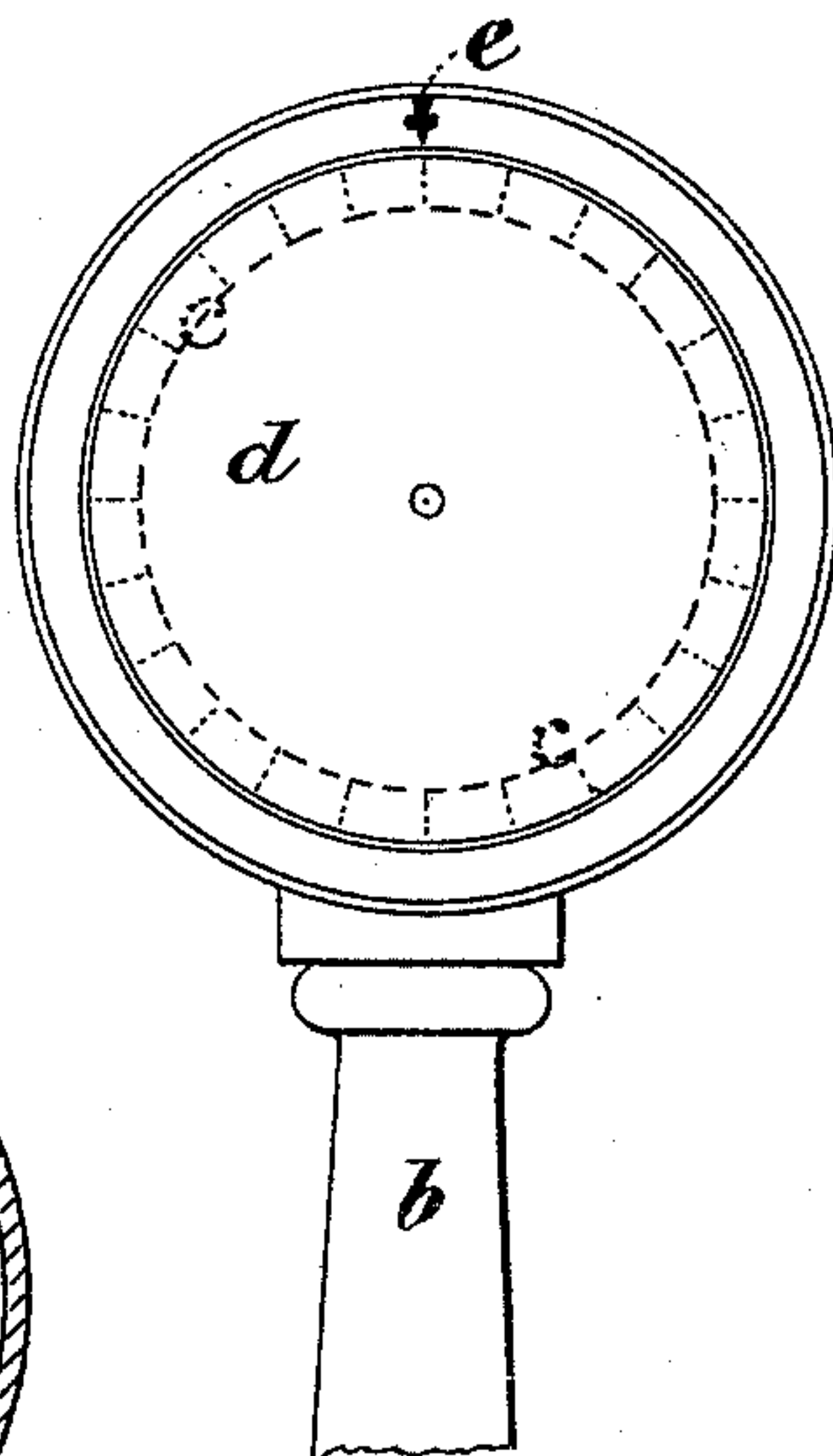


FIG: 3.

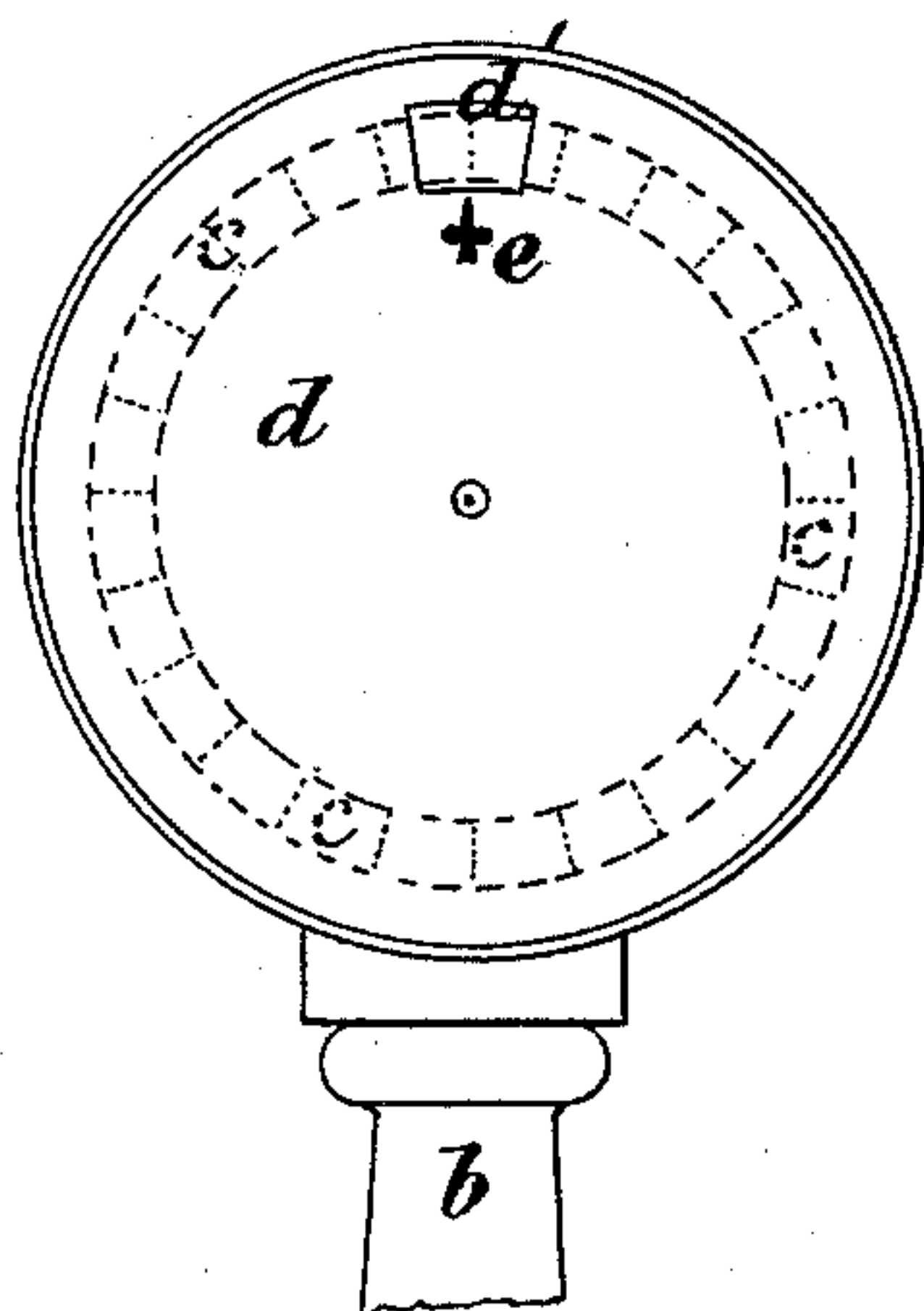
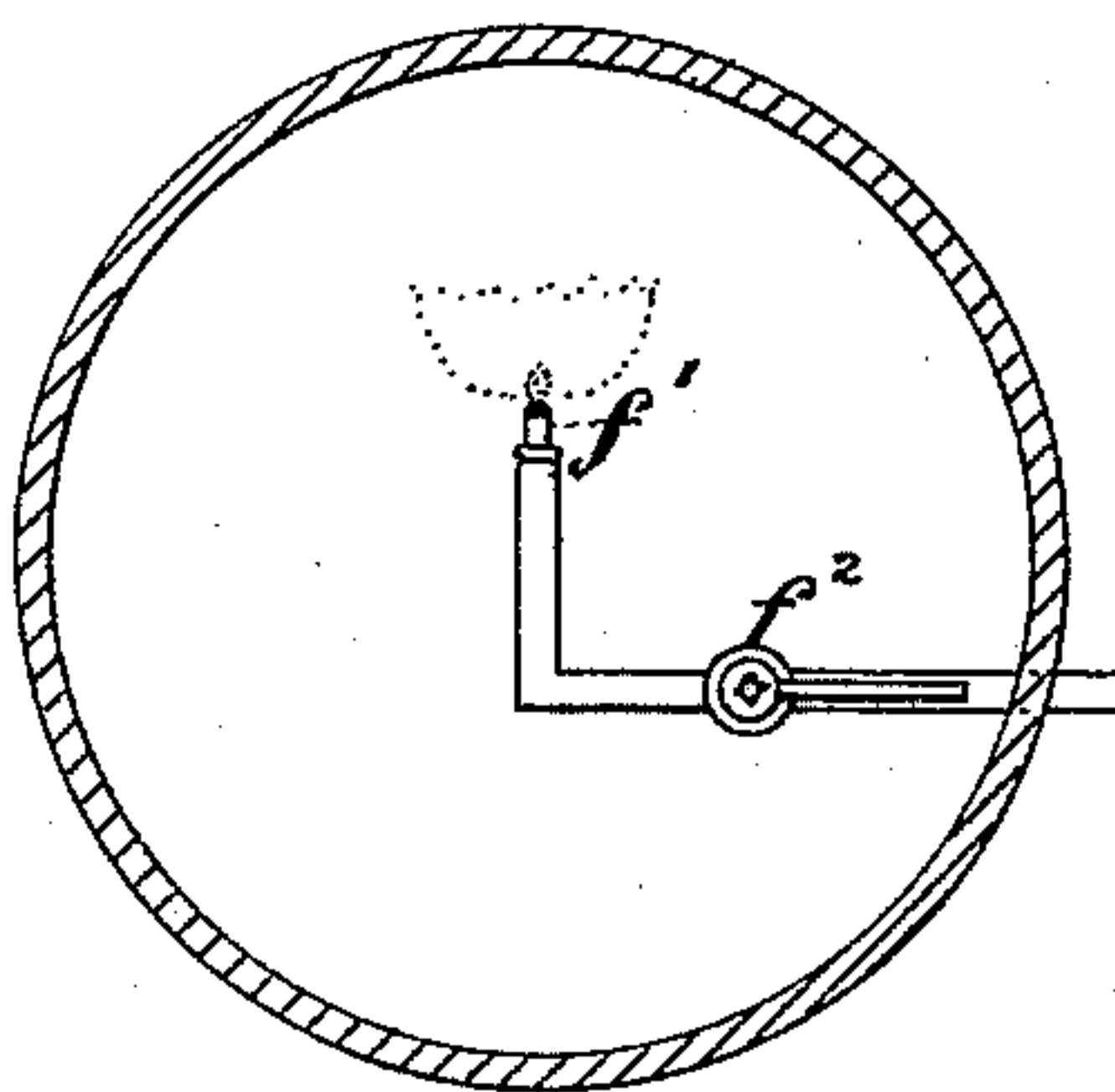


FIG: 4.



WITNESSES

E. J. Grievold.

Wm Chester Wells

Inventor.

F. C. Lynde

by his Attorneys

Howson and Howson

(No Model.)

2 Sheets—Sheet 2.

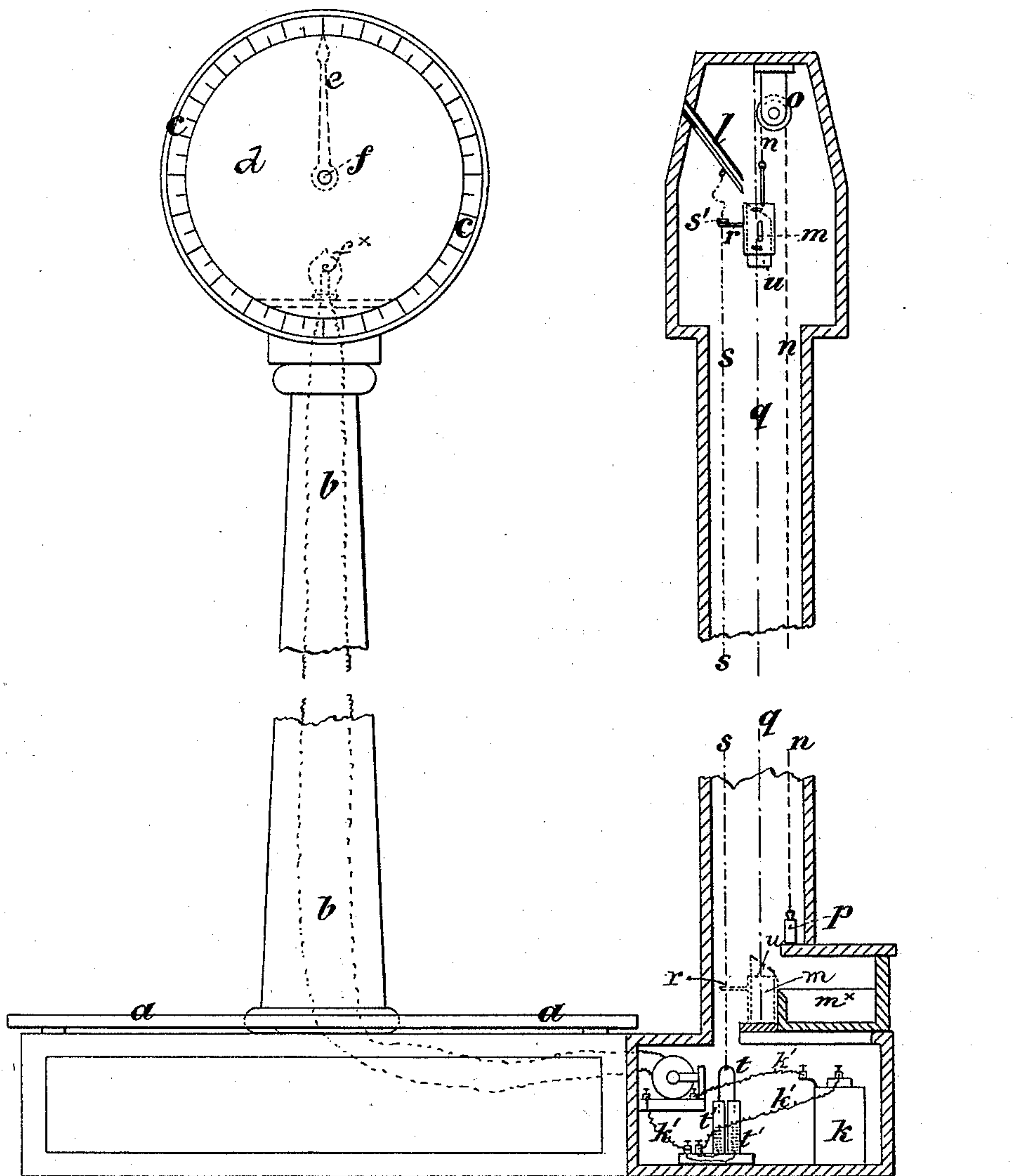
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FIG:6.



WITNESSES:

E. J. Griswold.

Wm Chester Wells

Inventor

F. C. Lynde

by his attys

Howison and Howison

UNITED STATES PATENT OFFICE.

FREDERICK C. LYNDE, OF MANCHESTER, COUNTY OF LANCASTER, ENGLAND.

COIN-CONTROLLED INDICATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 398,519, dated February 26, 1889.

Application filed January 27, 1888. Serial No. 262,162. (No model.) Patented in France January 14, 1888, No. 188,140; in Belgium January 20, 1888, No. 80,325; in Victoria February 28, 1888, No. 5,652, and in New South Wales March 1, 1888, No. 520.

To all whom it may concern:

Be it known that I, FREDERICK CHARLES LYNDE, a subject of the Queen of Great Britain and Ireland, residing at Manchester, in the county of Lancaster, England, have invented an Improved Coin-Controlled Indicating Apparatus, (for which I have obtained patents in France, No. 188,140, dated January 14, 1888; in Belgium, No. 80,325, dated January 20, 1888; in New South Wales, No. 520, dated March 1, 1888, and in Victoria, No. 5,652, dated February 28, 1888,) of which the following is a specification.

This invention relates to automatic machines for indicating weight, pressure, or other similar force or measurement (such as height) on prepayment of a coin, the apparatus being a modification of an indicator for which I have already made an application for Letters Patent in the United States of America, Serial No. 262,192, filed January 25, 1888, and is applicable both to indicators with a moving index and a fixed scale and to indicators with a fixed pointer and a moving scale. Instead of causing a spark or flash to proceed from the index or finger of the apparatus to the dial or other graduated scale, as set forth in the aforesaid application, I make the mask which conceals the moving part of the indicator of semi-opaque material, or I provide a small window of such material in an opaque mask in such a position that the movable part of the indicator is only visible for a short time after a coin has been inserted in the machine. This is effected by causing the coin to ignite, uncover, or otherwise produce a light inside the casing of the indicator, so that the light will shine through the semi-opaque mask. It will be evident that this may be accomplished in a variety of ways, as shown in the annexed drawings, of which—

Figures 1, 2, and 3 are face views showing three different forms of my improved indicator. Figs. 4 and 5 are sections thereof showing different sources of light. Fig. 6 shows, partly in perspective and partly in section, how my improvements may be applied to an ordinary platform weighing-machine, *a* being the platform upon which the person (or article) to be weighed stands.

In the several figures, *b* is the support for the dial or scale *c*. *d* is the mask, and *e* is the index finger or pointer.

According to Fig. 1, the index or finger *e* is the moving part concealed behind the mask *d*. The numerals and divisions on the dial or scale *c* may be either on a separate ring or printed on the face or in reverse on the back of the said mask *d*, as preferred. In the latter case the finger or pointer *e* may be always visible.

Fig. 2 shows that the semi-opaque mask *d* may revolve, and the graduations or scale *c* may be marked on the back, (say in opaque white paint.) The fixed pointer *e* may be either always visible or also painted or fixed behind a semi-opaque screen.

Fig. 3 shows that the dial or scale *c* may be transparent and revolve behind a fixed opaque mask, *d*, provided with a small semi-opaque window, *d'*, near to the fixed pointer *e*. It will be evident from this figure, and without further illustration, that the fixed mask *d* may be made entirely of semi-opaque material and the window *d'* dispensed with.

The light inside the framing of the indicator may be produced by a small incandescent electric lamp lighted up automatically by the pressure of a coin in the apparatus by any suitable known mechanism, as indicated at *f*^x on Figs. 1 and 6; or it may be produced by a gas-jet, *f'*, (shown at Fig. 4,) turned down very low until the gas-tap *f*² is actuated automatically by a coin acting through any suitable known mechanism; or it may be produced by removing a tubular or other screen, *f*³, from a constant light, *f*¹, as shown at Fig. 5, or by moving the light itself.

I prefer to use for producing the required light the automatic apparatus for which I have made a separate application for Letters Patent in the United States, filed January 25, 1888, Serial No. 262,191, as shown at Fig. 6. In the case illustrated the coin is placed through a slit into a chute, *l*, and falls into a small box, *m*. The box *m* is supported by a cord, *n*, or its equivalent, passing over a pulley, *o*, and having a counterbalance-weight, *p*, attached to its other end which is sufficiently heavy to raise the box *m* when empty and

support it in the position shown in full lines in Fig. 6. When the coin falls into the box, it overcomes the counterbalance-weight p and causes the box to descend, being guided by the fixed wires q or equivalent means. At the side of the box m there is a small arm, r , which supports (by means of a knot or button, S') a cord, S , to the lower end of which is attached a forked or bent piece of metal, t . As the box m descends, the arms or ends of this fork t descend into the mercury contained in two glass tubes, $t' t'$. The wires k' from the battery K dip into or are otherwise in connection with the mercury, and thus the electric circuit is completed and the lamp f^x is lighted, and the position of the finger e is thus rendered visible. When the box m arrives at its lowest point, as shown by dotted lines on Fig. 6, a plunger, u , having an inclined upper surface and forming the bottom of the box m , (see Fig. 4,) comes into contact with a fixed part of the apparatus and causes the coin to be pushed up out of the box m , when it falls into a suitable receptacle, m^x , Fig. 6. The box m , being thus lightened of its load, is then drawn back by the counterbalance-weight p into its original position. As soon as the arm r arrives at the knot or button S' on the cord S it causes the same to lift the fork t out of the mercury, and thus disconnects the wires k' and breaks the circuit, and the electric light will be extinguished, and consequently the visible indication will cease.

I would here remark that, although I prefer the box m and its adjuncts, any competent electrician can devise other means of completing the electric circuit.

Although I have illustrated my invention as applied to a dial or radial indicator, it is equally applicable to apparatus wherein the indication is made by other well-known movements.

I do not claim herein the construction of the coin-receptacle, as that is made the subject of a separate application filed by me January 25, 1888, Serial No. 262,191.

I claim as my invention—

1. In a weighing-machine, the combination of a scale and index, one movable and the other fixed, with a semi-opaque shield in front and normally hiding from view the moving part, and a source of light located behind the shield and adapted to illuminate the same when desired.

2. In a weighing-machine, the combination of a scale and index, one movable and the other fixed, with a semi-opaque shield in front of and normally hiding from view one of said parts, with a source of artificial light placed behind and adapted to illuminate the shield, a coin-receptacle, and connections between the coin-receptacle and the light, whereby the exposure of the latter is controlled by the former.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRED. C. LYNDE.

Witnesses:

JNO. HUGHES,
W. NICHOLSON.