

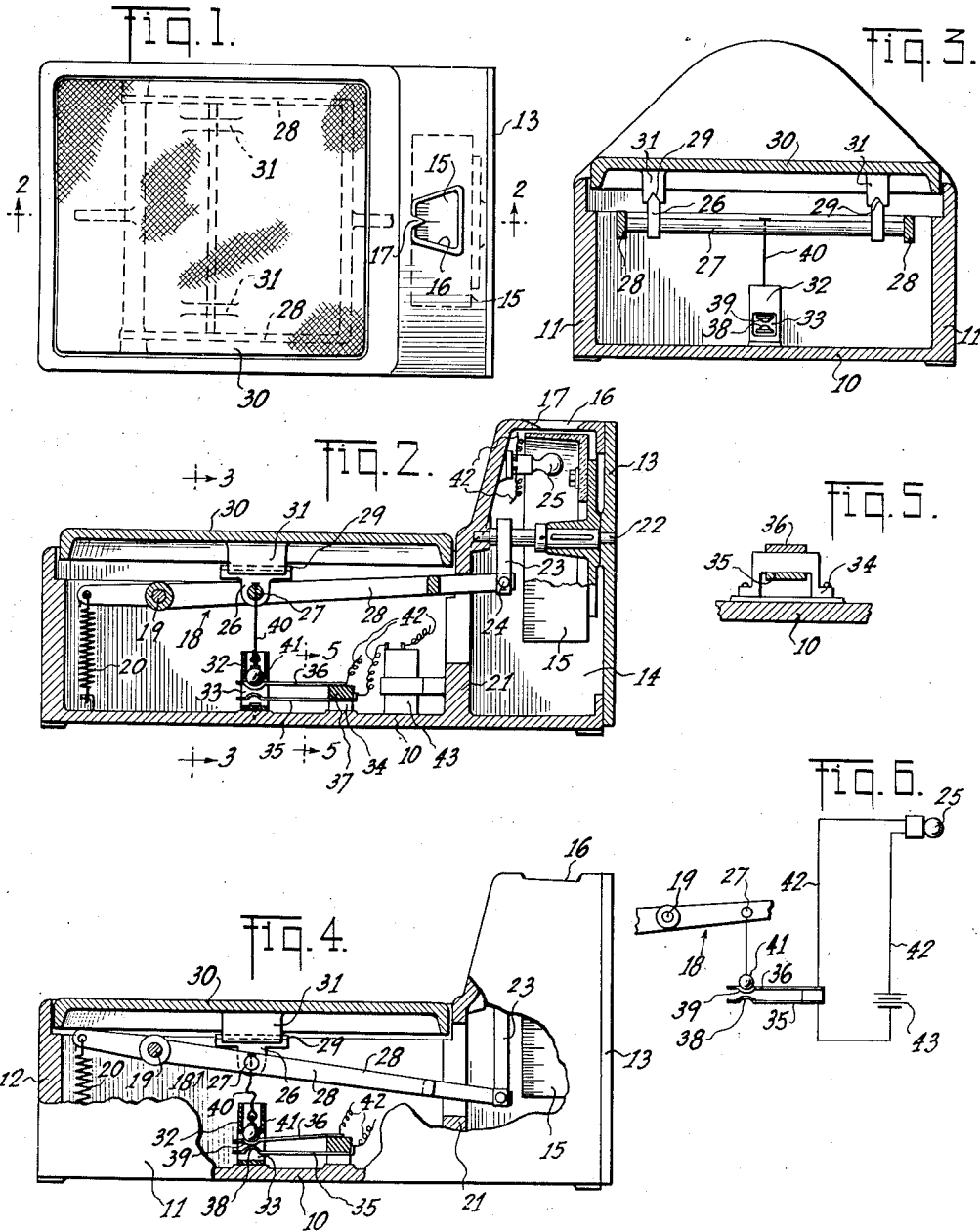
Feb. 8, 1938.

I. DEAN

2,107,888

ILLUMINATING DEVICE FOR BATHROOM SCALES

Filed Jan. 8, 1937



INVENTOR
IRVING DEAN.
BY
J. Lidenmann
ATTORNEY

UNITED STATES PATENT OFFICE

2,107,888

ILLUMINATING DEVICE FOR BATHROOM
SCALES

Irving Dean, Rockaway Beach, N. Y.

Application January 8, 1937, Serial No. 119,597

1 Claim. (Cl. 240—2.11)

One object of this invention is the provision of a novel means for illuminating the dial of a bathroom scale automatically upon the exertion of pressure downward on the platform of the scale as soon as a person stands on the platform, so that the reading of the dial is facilitated.

Another object of the invention is the provision of a novel contact device or switch, whereby the circuit through a lamp situated adjacent the dial is closed upon the beginning of the descent of the platform, and remains closed as the platform continues to descend and until the weight is removed from the platform.

The above and other objects will become apparent in the description below, in which characters of reference refer to like-named parts in the accompanying drawing.

Referring briefly to the drawing, Figure 1 is a plan view of a bathroom scale.

Figure 2 is a cross-sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a cross-sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a side elevational view of Figure 1, partly in section, showing the relative positions of the parts of the scale when a weight rests on the platform.

Figure 5 is a cross-sectional view taken on the line 5—5 of Figure 2.

Figure 6 is a wiring diagram of the illuminating circuit.

Referring in detail to the drawing, the numeral 10 represents the base of the scale housing having the side walls 11 and end walls 12 and 13. The housing extends upward adjacent the end wall 13 to provide a compartment 14 in which a rotatably mounted translucent dial 15 is situated. The housing at that end is provided with an opening 16 at the top, through which the reading of the dial is visible. A dial indicator 17 is formed in the housing on the periphery of the opening 16.

A scale beam 18 is pivotally mounted on a shaft 19 supported in the opposite side walls 11 of the housing. A tension spring 20 urges one end of the beam 18 downward and the other end upward. The latter end of the beam projects through an intermediate wall 21 into the dial compartment 14. The dial 15 is rotatably mounted on a shaft 22 supported in the end wall 13 and the intermediate wall 21. A flexible steel band 23 has one end secured at 24 to the end of the beam 18, and its other end secured on the shaft 22 about which a portion of the length of the band 23 is wound in the usual

manner of such dials. The dial 15 is in the form of a cylindrical shell open on one side, that is, the left-hand side in Figure 2. An electric lamp 25 is mounted on the inside of the housing of the compartment 14 and projects into the space enclosed by the dial 15, at a point near the top of the compartment 14, so that the uppermost portion of the dial 15 lies between the opening 16 and the lamp 25.

The beam 18 is provided with a pair of spaced-apart lugs 26, which are pivotally mounted on a pin 27 rigidly connected between the two arms 28 of the beam 18. The lugs 26 are provided on their upper surfaces with elongated knife-edge rails 29. The platform 30 has rigid on its underside, a pair of downwardly projecting supports 31 whose lower edges are hollowed out complementarily with the knife edges 29 on which they rest. It is to be noted that the result of this structure is a slidable relationship between the supports 31 and the rails 29, the lugs 26 (of which the rails 29 are a part) being rotatable on the pin 27.

Directly below the pin 27, a vertical tube 32 is mounted on the base 10. The tube 32 is provided with horizontal openings 33 extending through the sides thereof near the base of the tube. On a pedestal 34 situated at a distance from the sleeve 32, are mounted a pair of vertically spaced apart horizontal spring contact fingers 35 and 36 separated at one end by a block of insulation 37. The fingers 35 and 36 project through the openings 33 in the tube 32 and their free ends are provided with rounded bosses 38 and 39 which face toward each other. A string or cord 40 has its upper end attached to the pin 27. On the lower end of the spring, a weight or ball 41 is attached, the length of the cord extending below the pin 37 being such that it is taut when the beam 18 is in its normal inactive position of rest, with the ball 41 barely touching the concave contour of the boss 39.

From the two contact fingers 35 and 36, lead wires 42 connect through a battery 43 or other source of electric supply with the lamp 25.

When a weight such as that of a person, rests on the platform 30, the latter is depressed, thus permitting the weight of the ball 41 to be released from suspension by the cord 40 and to descend on the tube 32, and hence to depress the boss 39 of the contact finger 35 and thereby close the circuit through the lamp. Thus, the dial reading on the translucent dial 15 is readily visible through the opening 16. When the weight of the ball 41 has depressed the boss 39 to a point

where the latter touches the boss 38, the circuit is closed. Continued descent of the pin 27 with the platform 30 causes simple slackening of the cord 40, as shown in Figure 4. Thus, the circuit remains closed continuously until the beam 18 again rises to a point sufficiently close to its normal inactive position to lift the weight 41 back to its open circuit position, shown in Figure 2.

Obviously, modifications in form and structure may be made without departing from the spirit and scope of the invention.

I claim:

In a device of the class described having a beam adapted to swing downward and a dial adapted to be rotated proportionately to the amount of downward swing of said beam, an electric lamp mounted adjacent said dial, a source

of electric supply, a switch connected in series with said lamp and said source, said switch comprising a pair of contact fingers, a pin on said beam having a cord secured at one end thereto, a vertical tube mounted beneath said cord and having a horizontal opening therein, said fingers projecting into said tube through said opening, a weighted ball suspended on the lower end of said cord, said cord being taut when the beam is in its extreme elevated position, descent of said beam through a relatively short distance causing the weight of said ball to force said fingers together to close said switch, continued descent of said beam causing slackening of said cord to maintain closure of said switch.

IRVING DEAN.