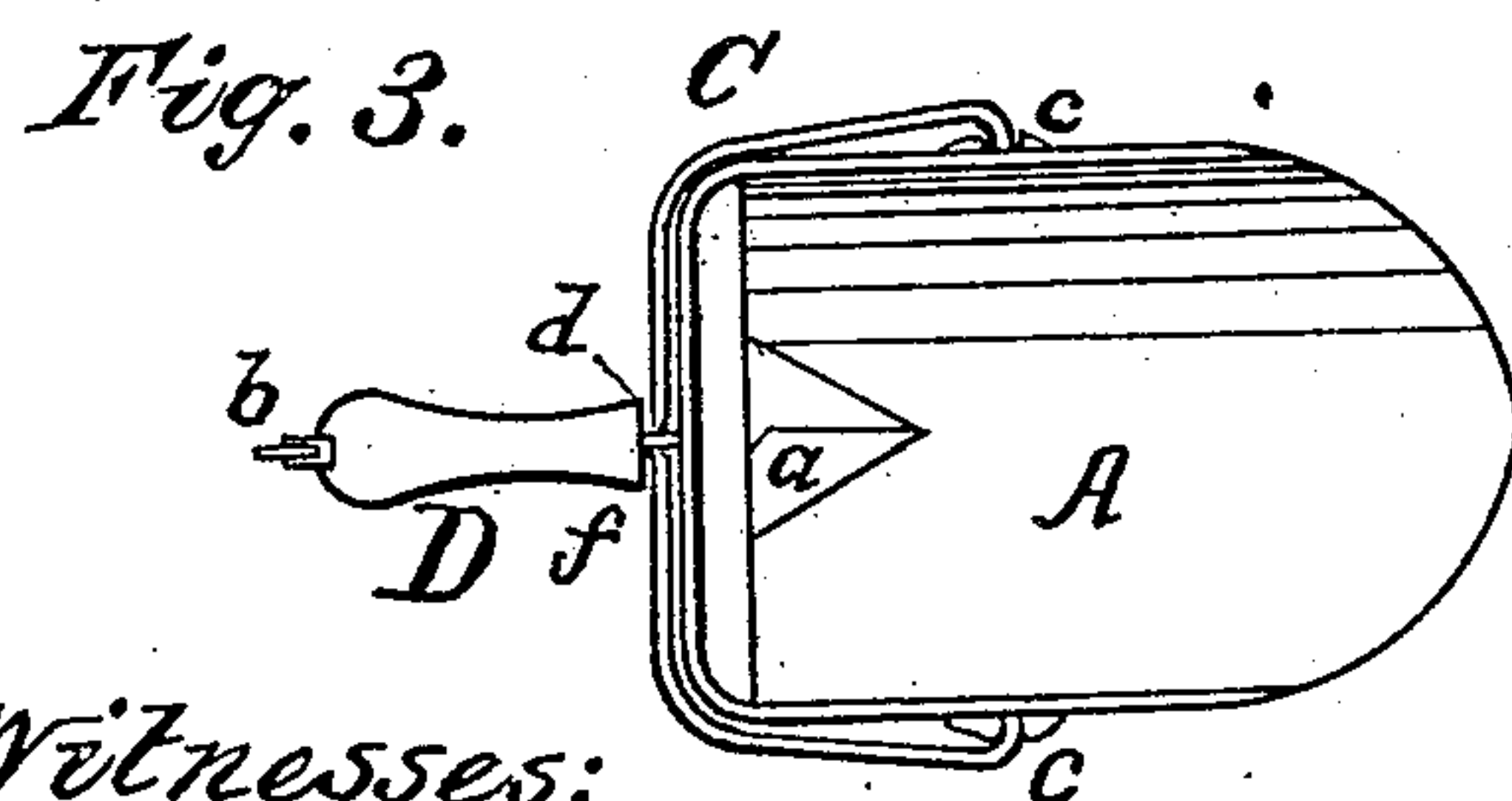
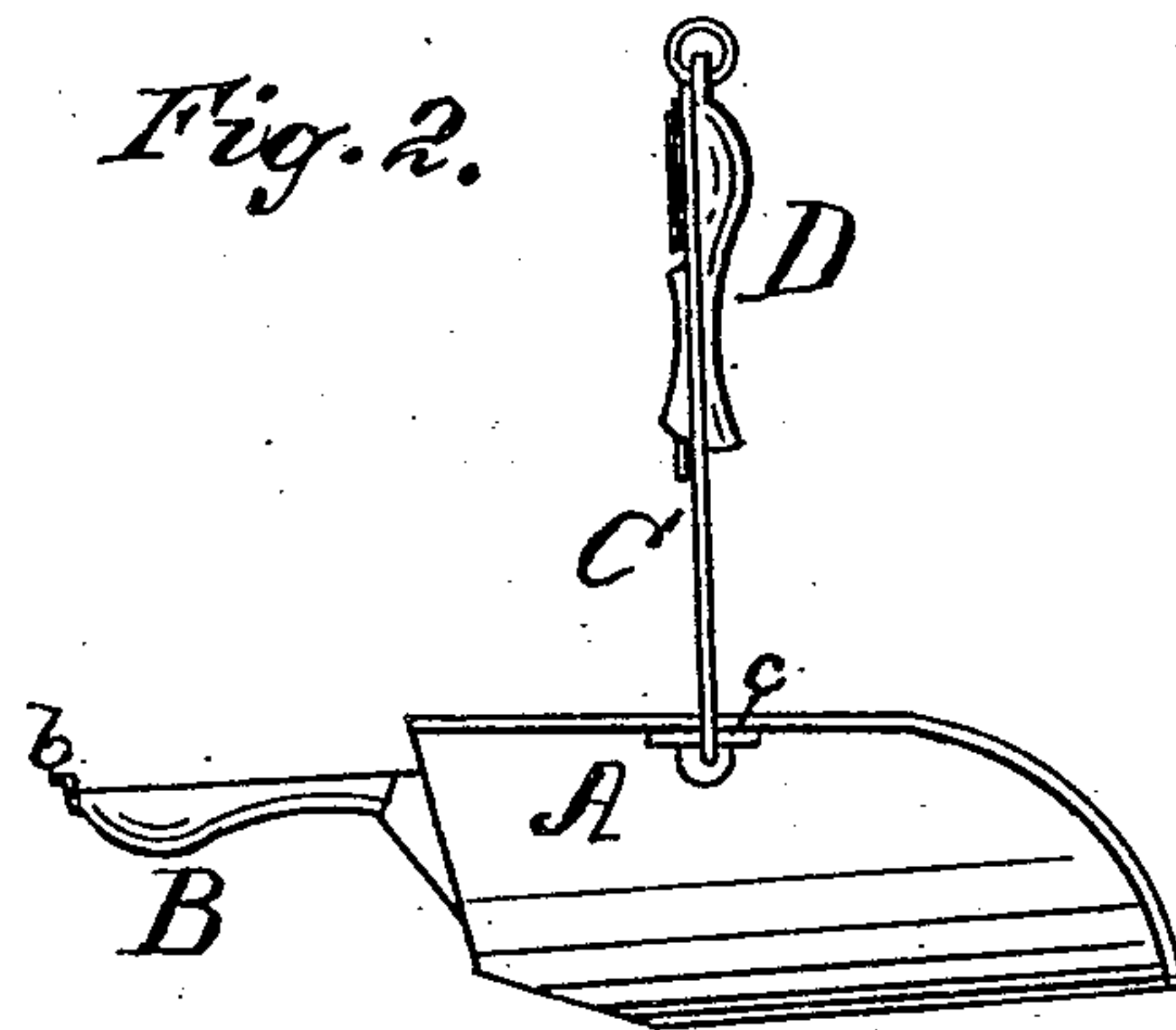
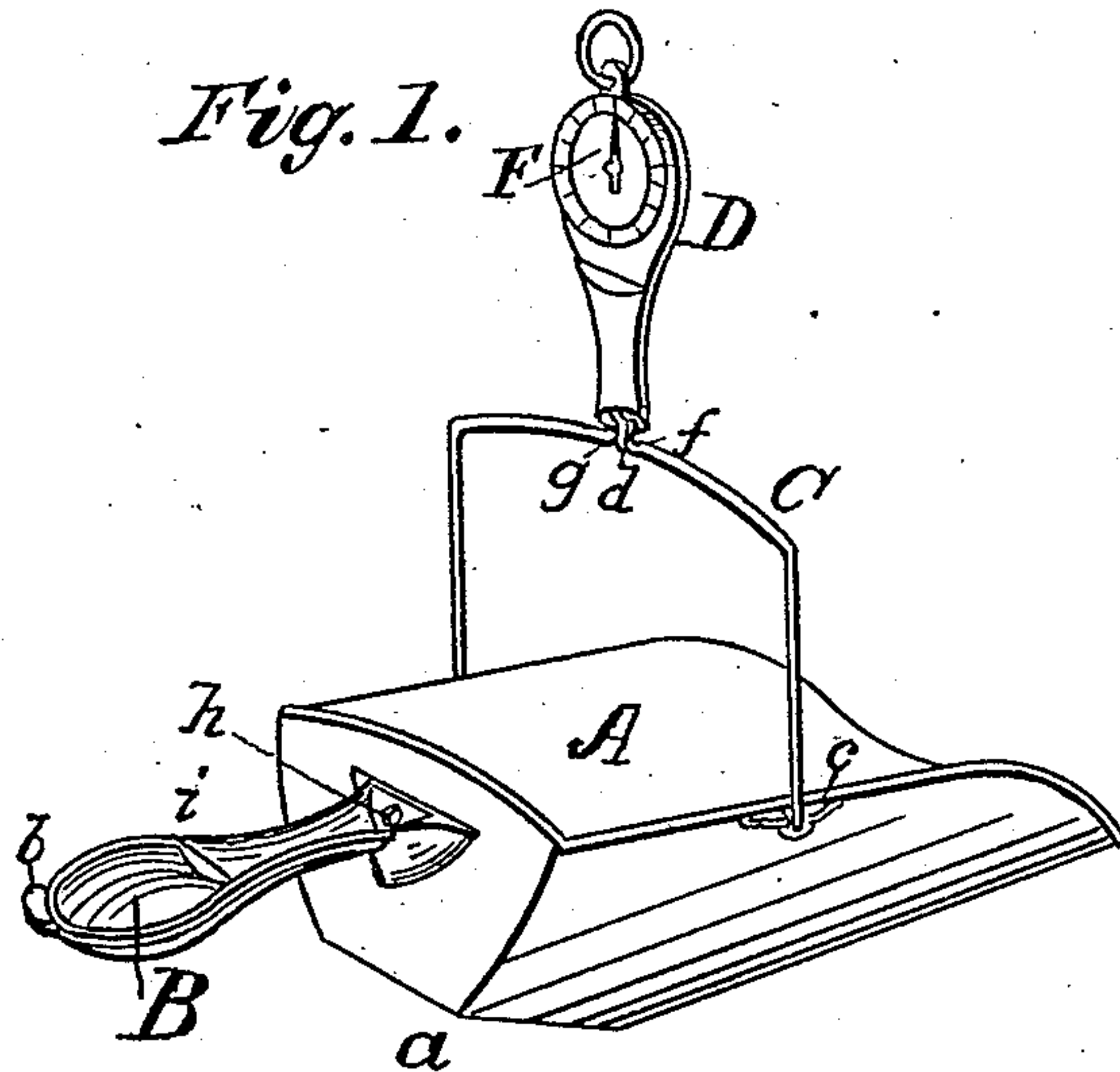


J. K. O'NEIL.
Weighing Scoop.

No 78,604.

Patented June 2, 1868.



Witnesses:

Maudana J Browne
Emelina J Brown

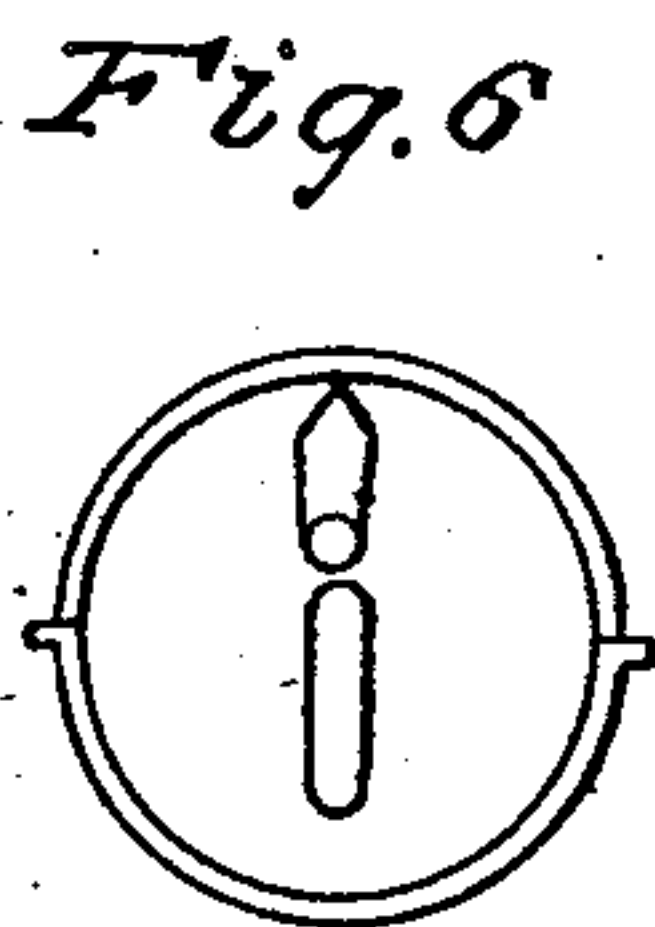
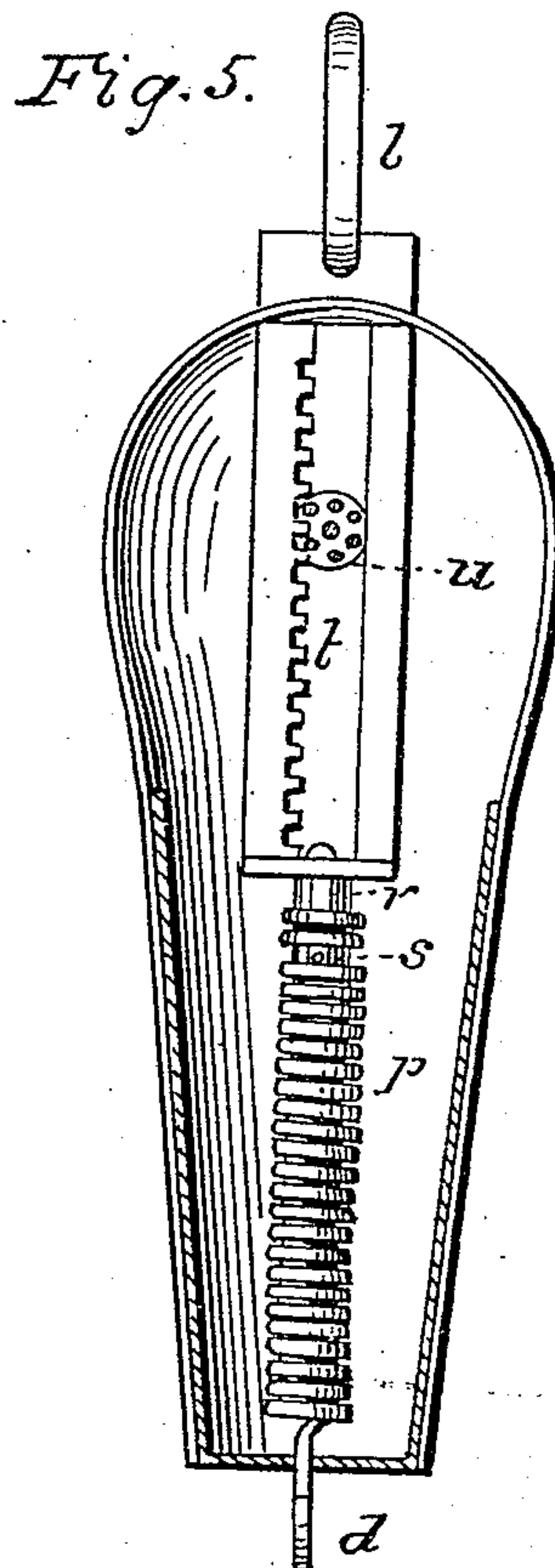
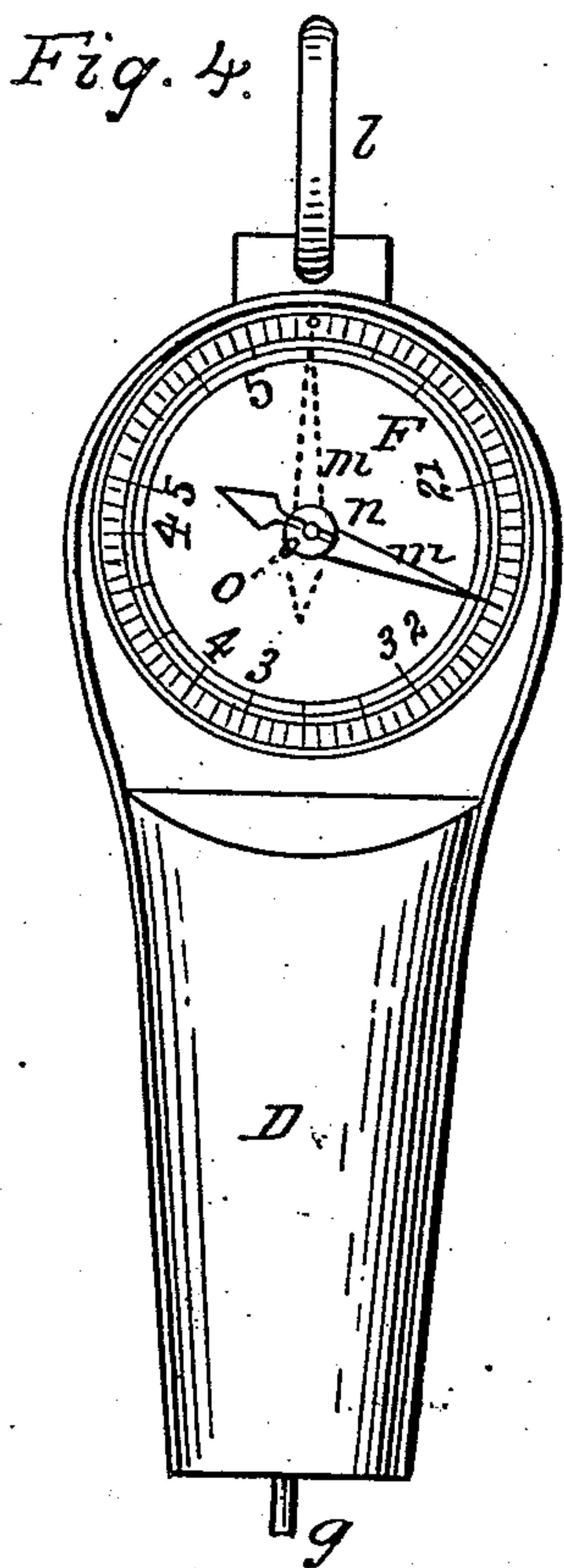
Inventor:
John K. Neal.
By his atty.
J. S. Brown

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2 Sheets—Sheet 2.

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Witnesses
Mauda J. Brown
Emeline J. Brown.

Inventor
John K. O'Neil,
By his atty,
J. S. Brown

United States Patent Office.

JOHN K. O'NEIL, OF KINGSTON, NEW YORK.

Letters Patent No. 78,604, dated June 2, 1868.

IMPROVEMENT IN WEIGHING-SCOOP.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN K. O'NEIL, of Kingston, in the county of Ulster, and State of New York, have invented an Improved Weighing-Scoop; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a view, in perspective, of the scoop, as in the act of weighing.

Figure 2, a side elevation of the same.

Figure 3, a top view thereof, showing the position of parts when the scoop is used for scooping up substances.

Figure 4, a front view of the balance or weighing-scale thereof.

Figure 5, a corresponding view, the dial and front plate being removed.

Figure 6, a view of the lower end of the same.

Like letters designate corresponding parts in all of the figures.

In order that the scoop A may rest upright, and retain whatever may be in it when placed upon a table or other support, a flat portion, *a*, is formed on the bottom, at the back part, as represented. The slope or direction of this plane portion is such as to enable the scoop to contain its contents. It is formed by splitting centrally the rounded bottom of the scoop, and lapping the edges, substantially as shown in fig. 3, or by striking up the form.

The handle B is made hollow on its upper side, the cavity therein being of form and size to receive and compactly hold the lower side or face of the spring-balance D, from which the bail of the scoop is suspended. When the bail is swung back, its pivots are located so as to bring the balance in position to rest in the handle.

A projection, *g*, or its equivalent, on the lower end of the balance, fits into a hole or notch, *h*, in the back end of the scoop, or into the handle, at its junction therewith. A catch, *b*, at the rear end of the handle, holds the balance in position when placed in the handle, so that the whole only makes a handle of good shape and size. In that position, the scoop is used in the ordinary way; but, when anything is to be weighed in the scoop, the balance is turned up with the bail, as in figs. 1 and 2, the index on the balance indicating the weight of the substance in the scoop.

In weighing, the handle-end of the scoop somewhat overbalances the other end; and there are notches around, or projections, *c c*, forward of, the pivots of the bail, so arranged as to prevent the bail from moving forward beyond a vertical position. This arrangement prevents the tilting of the scoop while weighing. A simple crook in the middle of the bail, as shown, around which a hook or loop, at the lower end of the balance, catches, serves to keep the balance in a central position on the bail.

The loop or hook *d*, by which the bail is suspended from the balance, for convenience and cheapness, is formed of the lower end of the weighing-spring *p* itself, as shown in fig. 5. This extends down through a slot or oblong hole in the bottom of the balance, as shown in fig. 6, so that the spring cannot turn in the balance-case.

The weighing-rack *t* of the balance has a round shaft, *r*, swivelling therein, and extending down into the spring, which is held thereon by a pin, *s*, projecting from the said shaft, between two adjacent coils of the spring, as shown in fig. 5; and thus, by turning the shaft in the spring, the pin *s* travels up or down in the coils, and thereby the strength of the spring and the weighing-device are adjusted.

Another adjustment is obtained by securing the index or hand *m* to the pivot by friction, preferably by means of the compression of an elastic washer, *n*, (fig. 4,) over it, as indicated, while, with the exception of the friction, the index turns freely round on the pivot.

Besides these adjustments, the face or dial *F* of the balance is movable and adjustable around its centre, so that the weight of the scoop itself, or of the vessel holding the substance, can be deducted by simply moving the scale round till the hand points to zero, as indicated by red lines in fig. 4, and then the hand will indicate the net weight directly upon the dial, as indicated by black lines in the same figure. Thus, no deducting of tare is necessary.

The form of the balance is an important feature for the purpose here designed. The upper end is made

full and rounded, so as to admit the dial, and furnish a good shape for the handle, flatted only on one side, while the lower end is round, and tapers to the lower end.

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

1. The hollow handle B to the scoop, for the purpose of receiving the balance D, substantially as herein set forth.
2. I also claim securing the balance to the handle when not in use for weighing, substantially as specified.
3. I also claim so shaping the balance that it will form a counterpart to the handle, and compose part of it when brought down thereto, substantially as described.
4. I also claim the arrangement of the notches *c c*, or their equivalent, upon the scoop, in relation to the bail and balance, substantially as and for the purpose set forth.
5. I also claim attaching the balance to the scoop-bail by the extension of the balance-spring itself, as herein specified.
6. I also claim the combination and arrangement of the weighing-rack *t*, swivel-shaft *r*, pin *s*, and the balance-spring, substantially as and for the purpose herein set forth.
7. I also claim the elastic washer *n*, around the index-pivot, and pressing upon the index, substantially as and for the purpose herein specified.
8. I also claim the combination of the adjustable dial and adjustable index, to be used together, for making double or successive adjustments, as specified.

The above specification of my improved weighing-scoop signed by me, this 2d day of August, 1867.

JOHN K. O'NEIL.

Witnesses:

J. S. BROWN,
E. J. BROWN.