

No. 755,966.

PATENTED MAR. 29, 1904.

J. L. TAYLOR.  
COMBINED SCOOP AND WEIGHING APPARATUS.

APPLICATION FILED JUNE 5, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

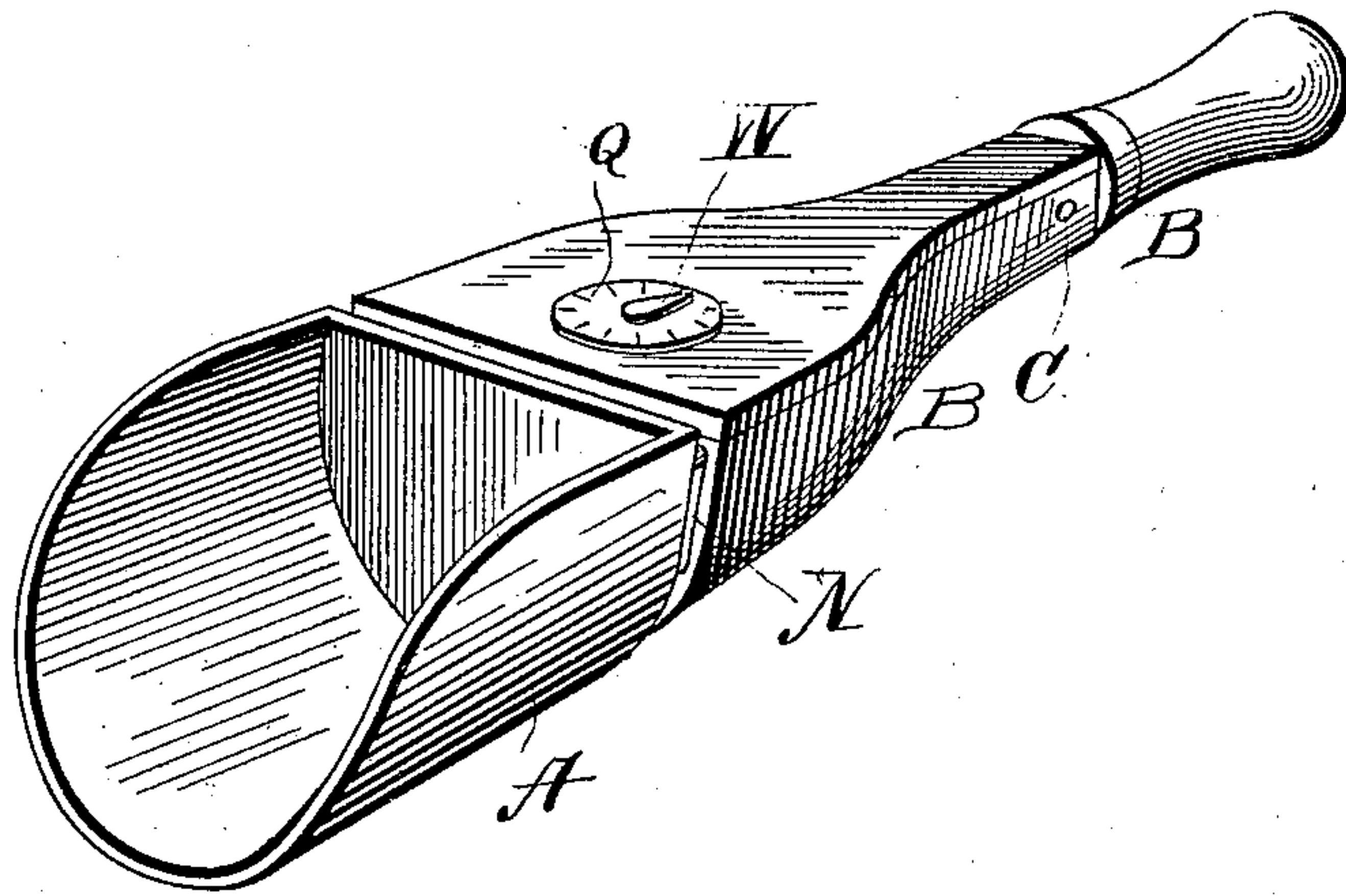
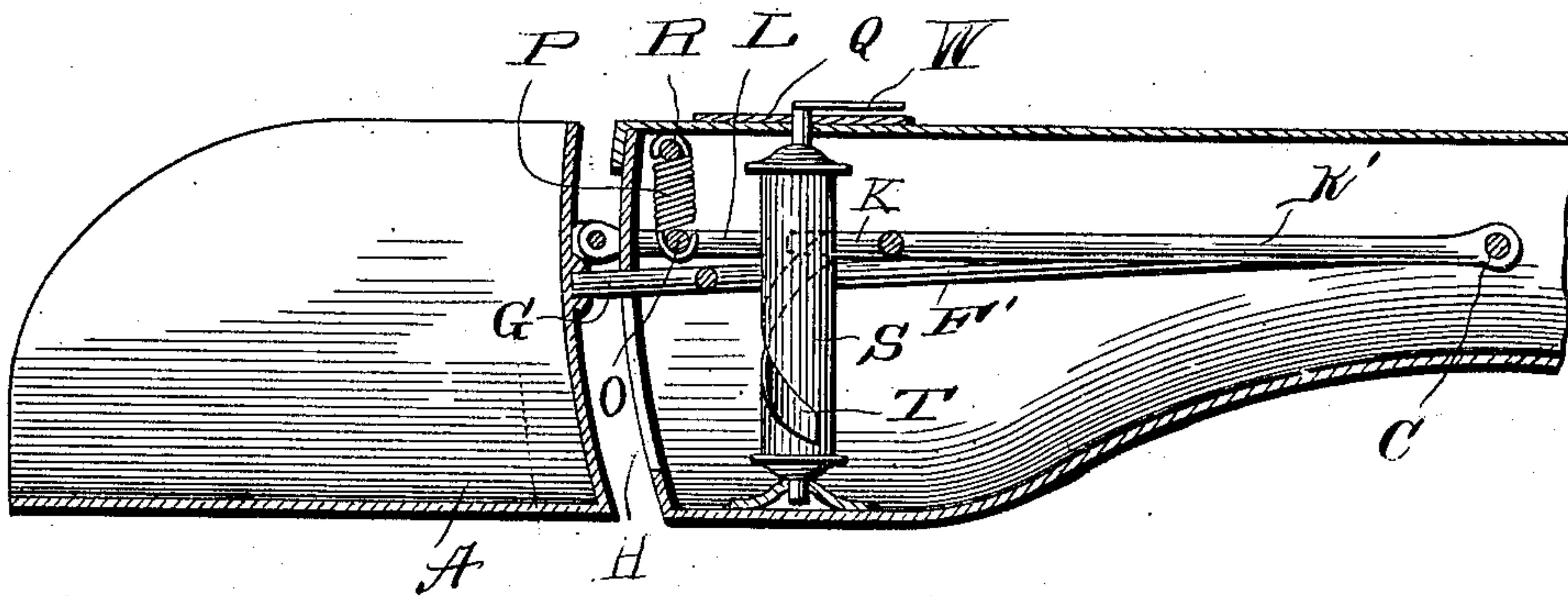


Fig. 2.



Witnesses

R. A. Bowtell.  
A. L. Hough.

Inventor

331

J. L. Taylor,  
Franklin H. Hough  
Attorney

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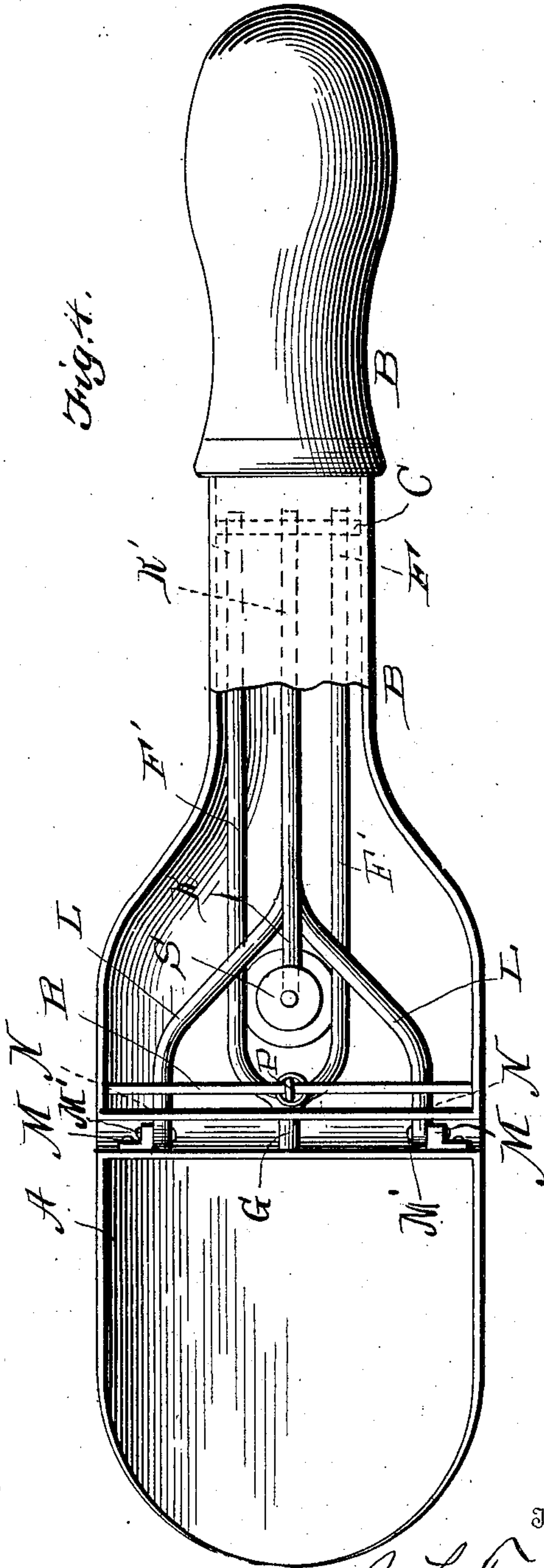
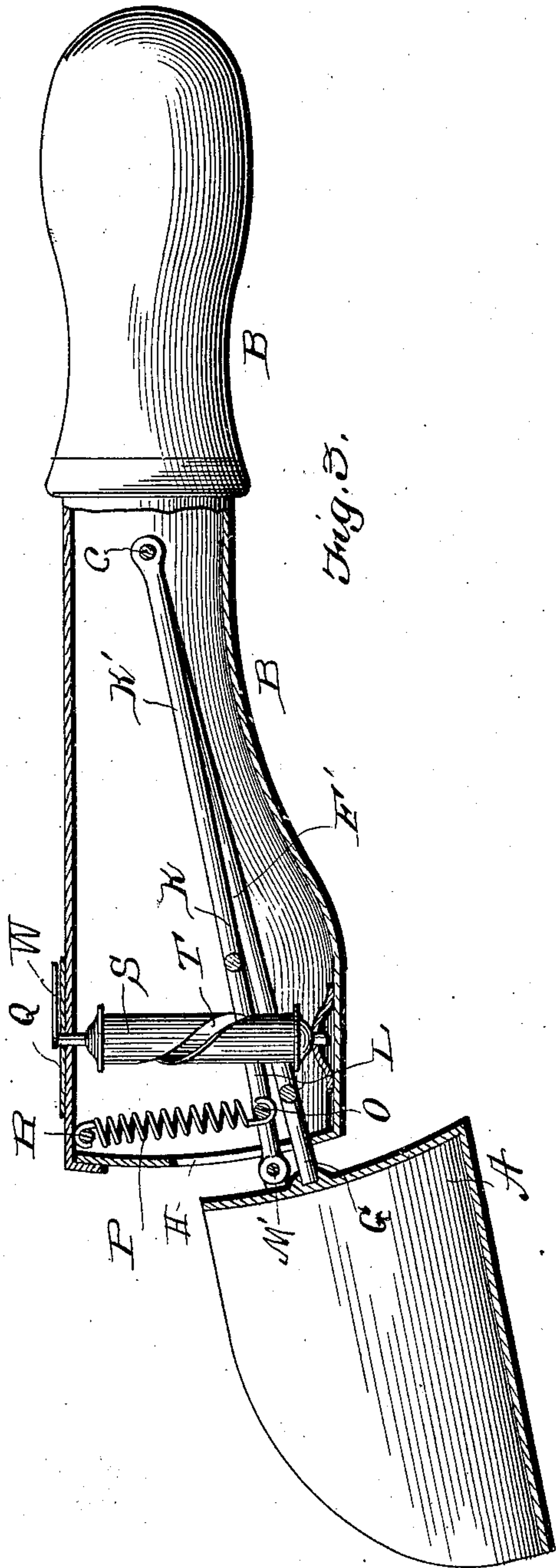
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2 SHEETS—SHEET 2.



Witnesses

R. A. Boswell.  
A. L. Hough

Inventor

J. L. Taylor,

By

Franklin H. Hough

Attorney



# UNITED STATES PATENT OFFICE.

JOHN L. TAYLOR, OF OTTAWA, CANADA, ASSIGNOR OF ONE-HALF TO  
GEORGE ARTHUR JOHNSTON, OF OTTAWA, ONTARIO, CANADA.

## COMBINED SCOOP AND WEIGHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 755,966, dated March 29, 1904.

Application filed June 5, 1903. Serial No. 160,242. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN L. TAYLOR, a citizen of the United States, residing at Ottawa, in the Province of Ontario and Dominion of Canada, have invented certain new and useful Improvements in a Combined Scoop and Weighing Apparatus; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in spring-scales, and comprises a weighing-scoop which is so constructed as to weigh commodities substantially accurately whenever the articles to be weighed are placed at any location in the scoop when the same is held substantially in a horizontal position.

More specifically, the invention consists in the provision of a weighing-scoop having a chambered handle in which is mounted a pivotal pin and in the provision of a scoop having fixed to the rear end thereof a forked rod the arms of which are pivotally mounted upon the pin carried by the handle and against which pin the arms of the rod are adapted to bear with more or less friction, accordingly as the commodity to be weighed is positioned at different locations in the scoop when the latter is supported by means of a spring connected to the wall of the handle.

The invention consists, further, in other details of construction and combinations and arrangements of parts, which will be hereinafter fully described and then specifically defined in the appended claims.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved weighing-scoop. Fig. 2 is a sectional view longitudinally through the scoop, showing the parts held in normal positions when not in use. Fig. 3 is a central longitudinal view through the device, showing the position of the scoop in the act of weighing; and

Fig. 4 is a top plan view of the weighing-scoop.

Reference now being had to the details of the drawings by letter, A designates a scoop, and B a handle which is hollow or chambered, and fastened in the walls of the handle is a pin or rod C, which may be of any desired diameter.

G designates the shank portion of a rod having two arms F', said shank portion being fixed to the rear end of the scoop, as shown clearly in the drawings, and the free ends of said arms F' are pivotally mounted upon said pin C. A second rod K', having branching arms L, has its shank portion pivotally mounted upon the pin C, while the arms thereof are pivotally mounted upon the pins M', which are carried by the brackets M, fastened to the rear end of the scoop. Portions of said arms L and also the shank portion of the rod G have a play in slots H in the front wall of the handle.

O designates a rod or cross-bar connecting the two arms L, and R designates a fixed rod which is fastened to the opposite side walls of the handle, and a spring P is fastened at one end to said rod R, and its other end is connected to said rod O and serves to hold the scoop normally in the position shown in Fig. 2 of the drawings.

Pivotally mounted in suitable bearings in the top and bottom walls of the handle is a cylindrical member S, having a spiral groove therein, and projecting from the crotch of the forked rod K' is a lug K, the free end of which is positioned in said spiral groove T, and fixed to the pintle on the upper end of said cylinder S is an indicating-pointer W, which is fixed at right angles to the cylinder and is adapted to register over the surface of the dial Q, which is positioned on the top of the handle, as shown clearly in Fig. 1 of the drawings.

By the construction shown and described it will be observed that when commodities to be weighed are positioned near the free front end of the scoop a certain amount of friction will exist between the wall of the apertures in the arms F' and the pivotal pin by reason of the scoop being supported by the spring P, making



the cross-bar O the fulcrum for the leverage of the rod K', which at one end is pivotally mounted upon the pin C and has its other forked ends pivotally connected to the rear end of the scoop. The nearer the commodity is positioned to the rear end of the scoop the less will be the friction upon the pin C, and the fixed end of the rod G is so positioned with relation to the pivotal ends of the arms L that commodities may be positioned at any location of the scoop and the friction will balance with the leverage, causing the commodity to weigh the same in any part of the scoop. By varying the size of the pivot-pin C and the diameters of the apertures in the arms F', which engage said pin, it will be apparent that the amount of friction of the arms bearing upon said pin will be increased accordingly.

While I have illustrated a particular construction of device showing the features of my weighing-scoop, it will be understood that I may make alterations in the various details, if desired, without departing from the spirit of the invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A weighing apparatus comprising a receptacle, a forked rod fixed thereto, a handle, a pin carried thereby on which the forked ends of said rod are pivoted, a second rod also pivoted on said pin and having pivotal connection with the rear of said receptacle, a spring having one end fixed to the handle and its other end connected to the rod which is pivoted to the receptacle, an indicator, and means for actuating the same as pressure is applied to the receptacle, as set forth.

2. A weighing apparatus comprising a hollow handle, a pin mounted therein, a scoop, a forked rod, one end of which is fixed to the scoop and its forked ends pivotally mounted upon said pin, a second rod, one end of which is pivoted on said pin and having a forked end, the arms of which are pivotally connected to

the rear end of the scoop, a rod connecting the arms of said rod which are pivoted to the scoop, a spring fixed at one end to the handle and the other end to said rod which is pivoted to the scoop, an indicator, and means for actuating the same as pressure is applied to the scoop, as set forth.

3. A weighing apparatus comprising a hollow handle, a pin mounted within the same, a scoop, a rod fastened to the rear end of the scoop and having forked ends which are pivotally mounted upon said pin, a second rod pivotally connecting the scoop with said pin, a spring fixed at one end to the handle and connected to said rod having pivotal connection with the scoop, a cylinder mounted in the handle and having a spiral groove, a lug carried by the rod to which the spring is connected and positioned in said spiral groove, and an indicating-pointer actuated by said cylinder, as set forth.

4. A weighing apparatus comprising a hollow handle, a pin mounted therein, a scoop, a rod fixed at one end to the scoop and having forked arms which are pivoted on said pin, a second rod which is pivotally mounted on said pin and having forked ends which are pivoted to the rear end of the scoop, a rod connecting said forked ends which are pivoted to the scoop, a spring fixed at one end to the handle and fastened at its other end to said rod, a spirally-grooved cylinder journaled in suitable bearings in the handle, and a projection, a rod pivotally connected to the scoop extending into said spiral groove, an indicating-pointer mounted on the pintle of said cylinder and adapted to register over the surface of a dial on the handle, as set forth.

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

JOHN L. TAYLOR.

Witnesses:

HORACE M. SANFORD,  
W. G. CONRAD.