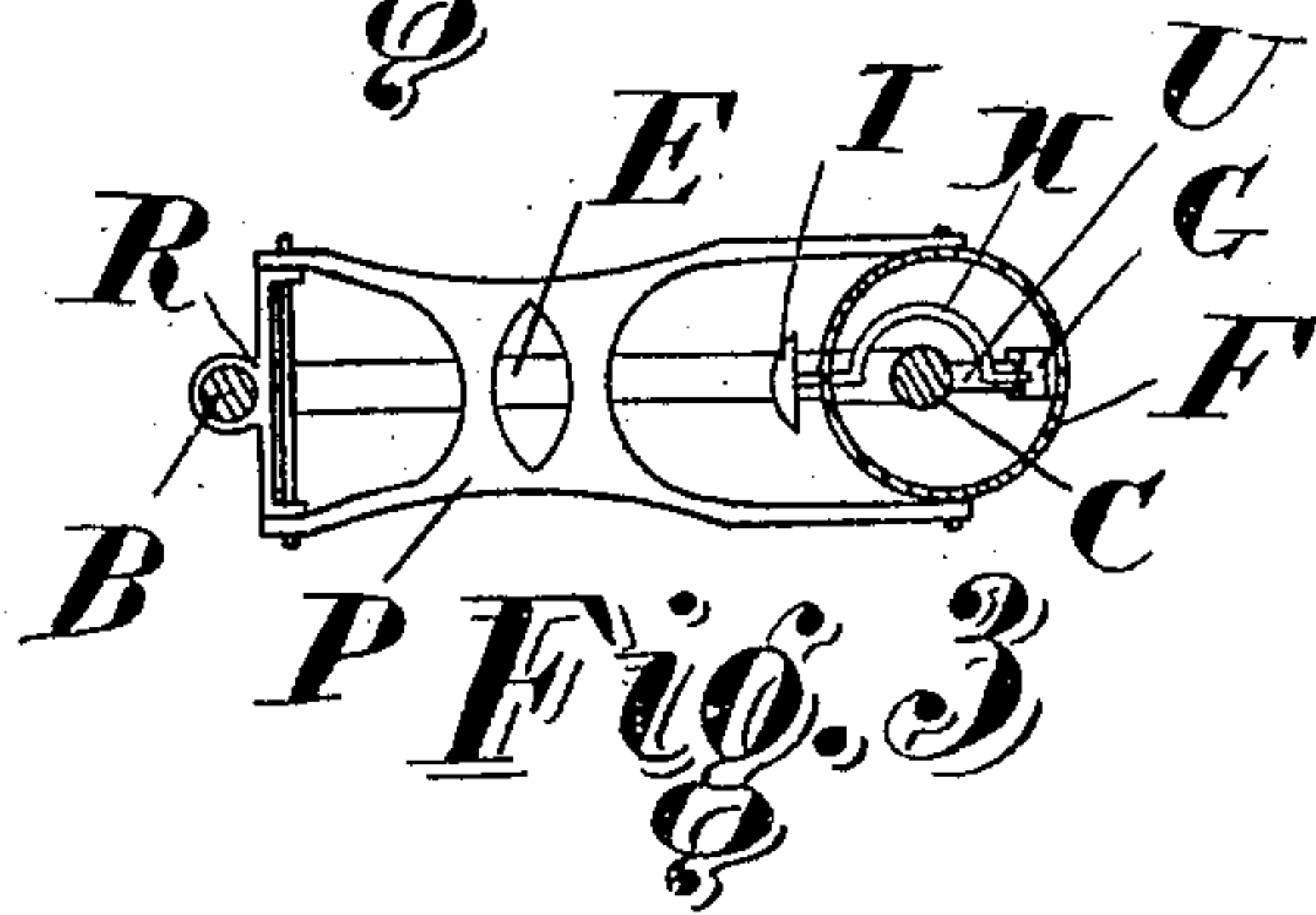
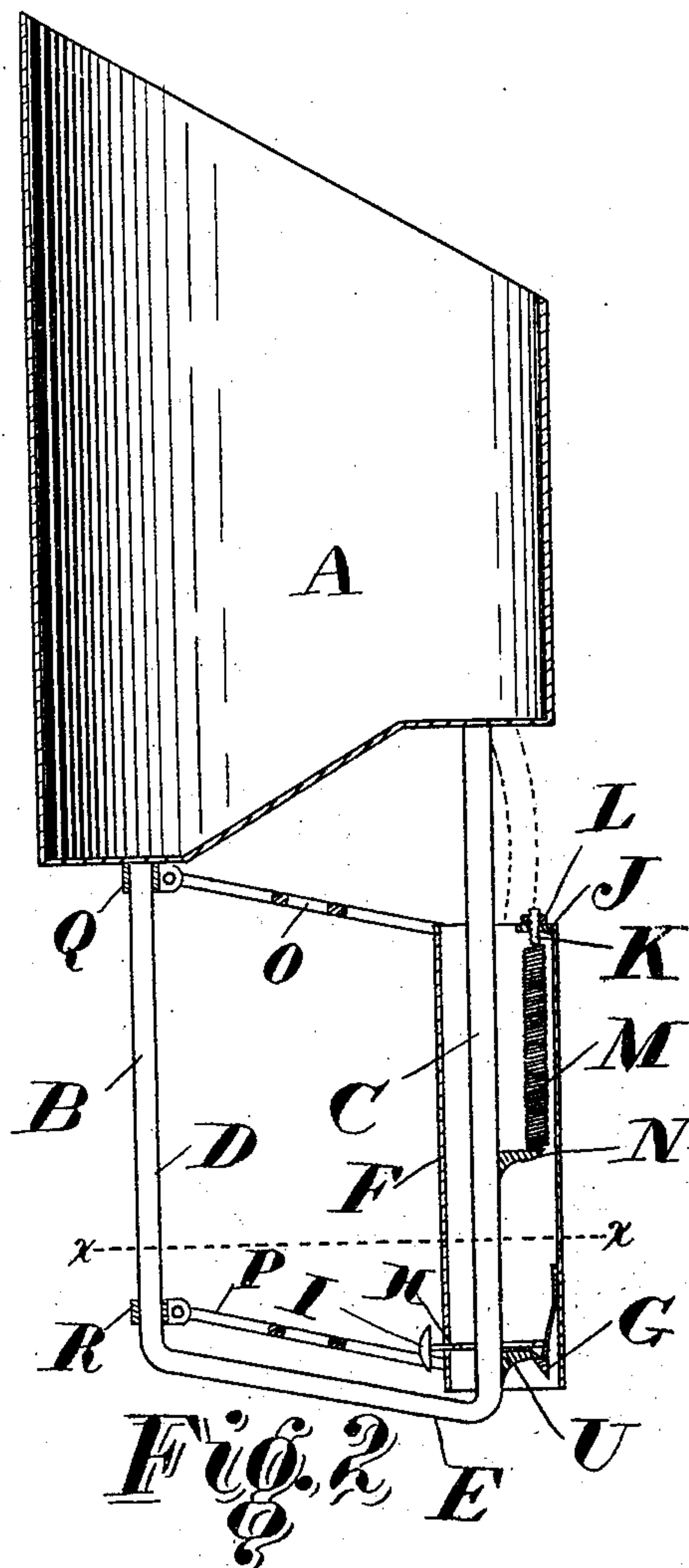
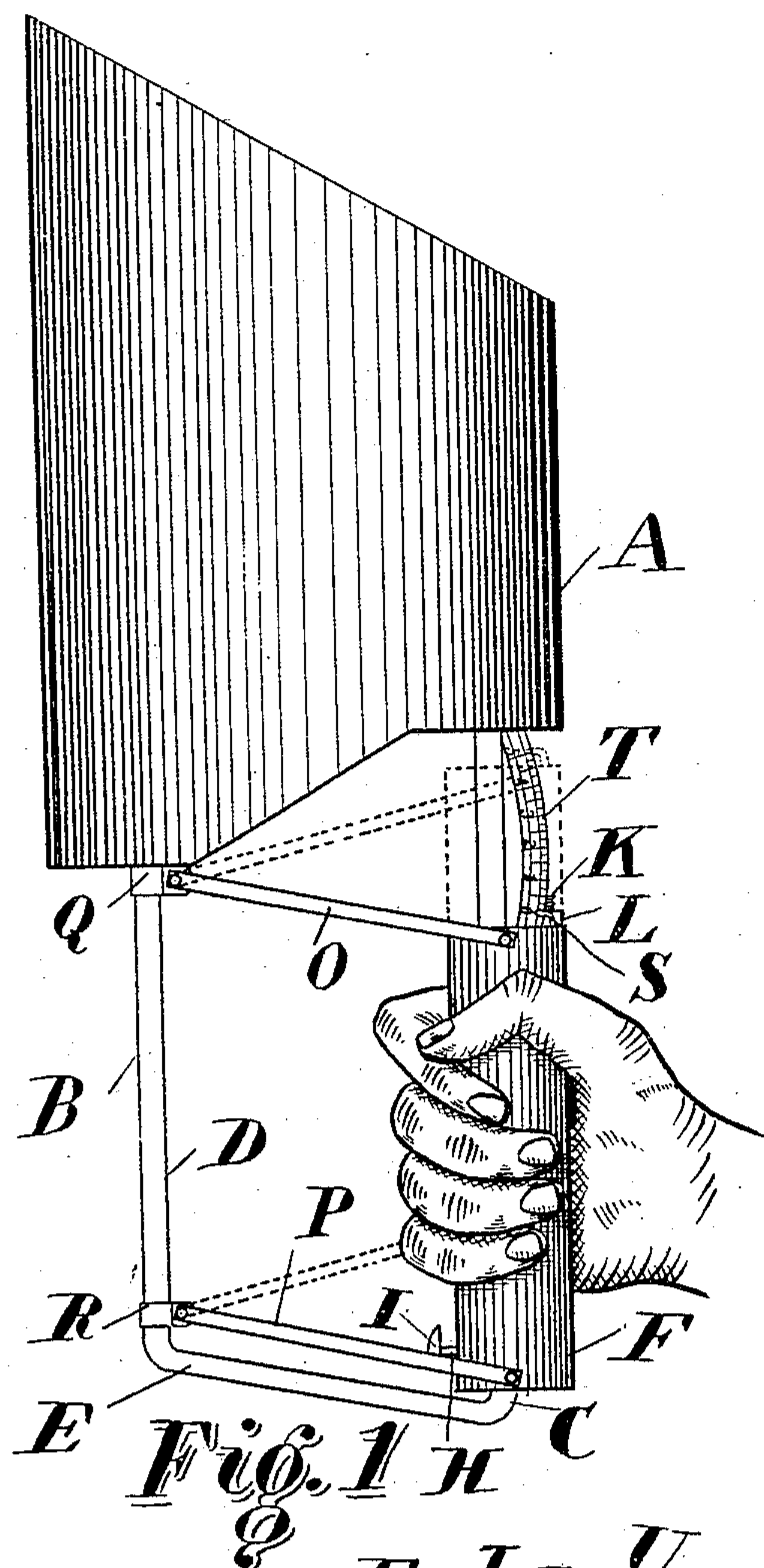


(No Model.)

N. S. DOUGLAS.
WEIGHING SCOOP.

No. 550,953.

Patented Dec. 10, 1895.



Witnesses.

W. A. Stevens
H. J. Spotts

Inventor.
Nathan S. Douglas.
by his Attys. Kincaid & Co.

UNITED STATES PATENT OFFICE.

NATHAN S. DOUGLAS, OF OAKLAND, CALIFORNIA.

WEIGHING-SCOOP.

SPECIFICATION forming part of Letters Patent No. 550,953, dated December 10, 1895.

Application filed March 13, 1895. Serial No. 541,648. (No model.)

To all whom it may concern:

Be it known that I, NATHAN S. DOUGLAS, a citizen of the United States, residing in Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Weighing-Scoops; and I do hereby 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 manufacture and use the same.

This invention relates to useful improvements in weighing-scoops of that class in which provision is made for the automatic weighing of articles placed in the scoop, thereby saving loss of time in transferring the substance to independent scales.

The present invention has for its objects, among others, to provide an improved construction in which there is a tension-spring, in contradistinction to parallel pivoted links, which latter shall throw the center of gravity of the scoop without a line through the center of the spring, thereby obviating any liability of the binding of parts consequent from holding the scoop during the operation of weighing slightly out of a perpendicular position. A spring-actuated catch is provided, whereby the scoop and handle and their connecting parts may be retained in a relatively rigid position, and the tension on the weighing-spring, when it is desired to use the scoop independent of the weighing mechanism, thereby relieved.

In addition to accomplishing the above results with structural simplicity and economy there are other minor objects and advantages of the invention which will hereinafter appear, and the novel features thereof will be particularly defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, in which—

Figure 1 is a side elevation of my improved weighing-scoop. Fig. 2 is a longitudinal central section, and Fig. 3 is a transverse section through the line $x x$, Fig. 2.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letters, A designates the scoop, which is

of ordinary cylindrical form with beveled mouth. Rigidly secured to the closed bottom of the scoop A and extending downward from diametrically-opposite points near the edge thereof are the parallel legs B C of the U-shaped rod D, the closed end E of which is slightly inclined from a perpendicular position relative to the parallel legs B and C. Encircling the longer leg C is a cylindrical handle F, at one extremity of which is the spring-catch G, which is controlled by the bent-wire rod H and button I, the latter being situated without the handle F. Passing through a lug J, projecting from the inner surface of the upper extremity of the handle F, is an adjustable screw K and nut L, to the lower end of the former of which is attached one extremity of the tension-coiled spring M, while its other end is secured to a lug N, projecting from the leg C.

As a means for holding the handle F in the desired position relative to the leg C and at the same time providing for the vertical motion of the scoop relative to the handle F and tension-spring M, I have provided the two parallel links O P, whose extremities are pivoted, respectively, to the upper and lower extremities of the handle F and to the bearings Q R on the leg B.

Secured to the leg C and adapted in conjunction with the pointer S to indicate the weight of the contents of the scoop is the graduated scale-plate T, which is slightly curved to conform with the lateral movement of the handle F consequent from its pivoted position.

In operation while the catch G engages with the lug U the relative parts of the device are held rigid, no matter what the weight contained in the scoop may be; but as the button I is forced against the handle F the catch G is released and the scoop and contents exert a tensile force on the spring M, while the pointer S indicates on the plate T the amount of that force and consequently the weight of the contents of the scoop.

The position assumed by the relative parts of the device as a five-pound weight is placed in the scoop is indicated by the dotted lines in Fig. 1.

The object of the screw K and nut L is to adjust the position of the spring M in case of

its "setting" from constant use. From the above description it will be readily seen that I have provided a weighing-scoop free from liability of the binding of parts when not held
5 in an exact perpendicular position and one in which the parts are readily assembled, not liable to derangement, and positive in their action.

I am aware that modifications in detail may
10 be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

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

1. The combination with a scoop and handle, a U shaped rod projecting from said scoop, one leg of said rod being connected to said handle by means of a tension spring while
20 the opposite member of said rod is connected to said handle by means of pivoted connecting links, and means for indicating the tension on said spring substantially as set forth.

2. The combination with a scoop and handle, of a tension spring carried by the handle, 25 and two parallel projecting rods on the scoop one of which is encircled by and independent of the handle and attached to one extremity of the spring, while the other is connected to the handle by means of pivoted parallel links, 30 and means for indicating the tension on said spring substantially as described.

3. A weighing scoop provided with a U shaped projecting rod, a handle loosely encircling one leg of said rod and connected there- 35 with by means of a coiled tension spring, and pivoted links connecting said handle with the opposite leg of said rod, and a spring catch within said handle engaging with a projection on said rod, substantially as set forth. 40

In testimony whereof I hereunto set my hand in presence of two witnesses.

NATHAN S. DOUGLAS.

Witnesses:

HARRY J. LASK,
GEO. KINCAID.