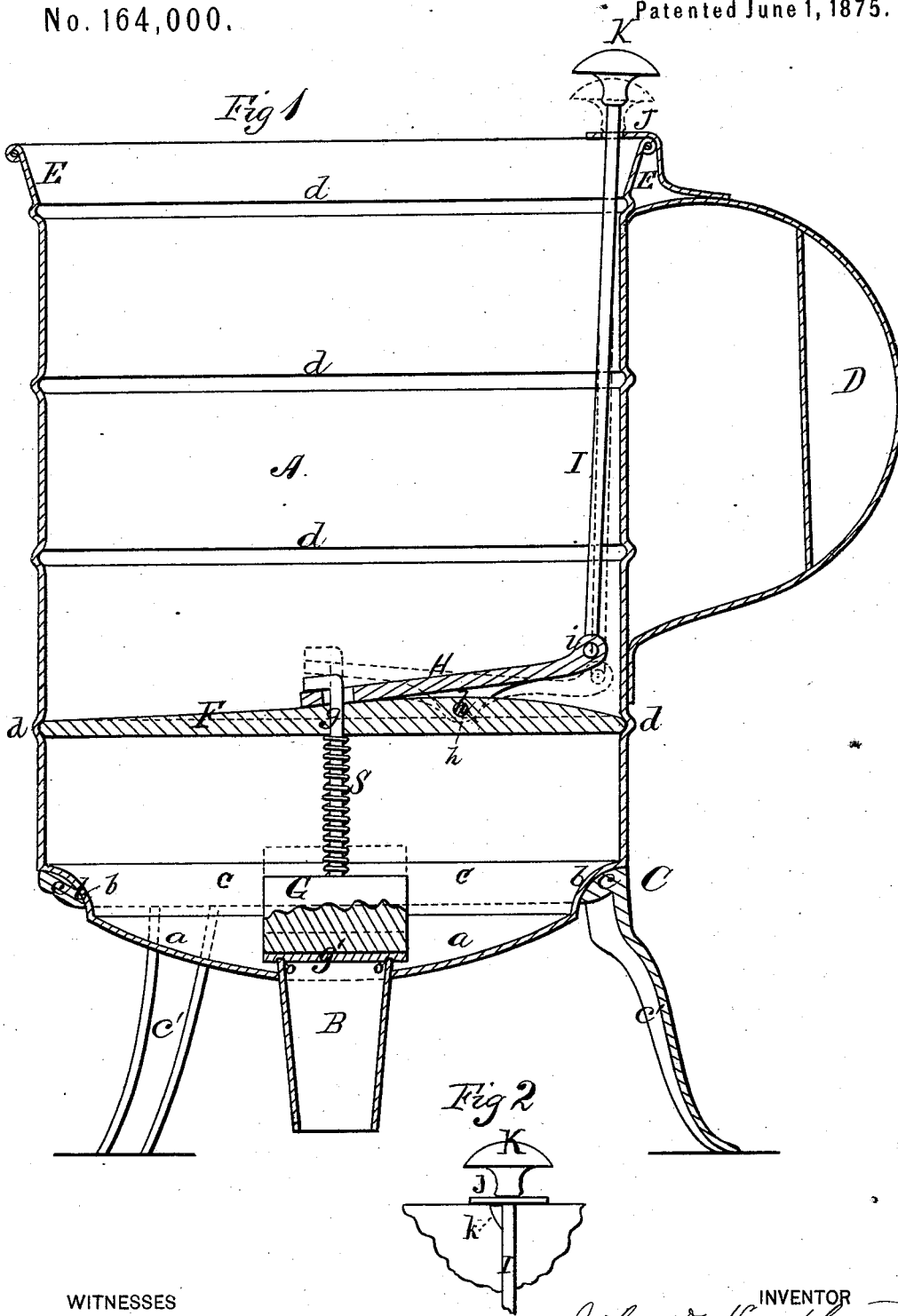


J. D. HUMPHREY.  
Measures and Funnels.

No. 164,000.

Patented June 1, 1875.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

JOHN DUDLEY HUMPHREY, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIAM A. HUMPHREY, OF SAME PLACE.

## IMPROVEMENT IN MEASURES AND FUNNELS.

Specification forming part of Letters Patent No. 164,000, dated June 1, 1875; application filed December 5, 1874.

*To all whom it may concern:*

Be it known that I, JOHN D. HUMPHREY, of New Britain, in the county of Hartford and State of Connecticut, have invented a new and valuable Improvement in Measures and Funnels; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a vertical central section of my measure and funnel, and Fig. 2 is a detail view of the same.

This invention relates to vessels which are designed to serve the purposes both of a measure and of a funnel; and the nature of the invention consists in the employment in this class of vessels of certain devices, as will be hereinafter more fully set forth.

In the annexed drawings, A designates a metallic vessel of cylindrical form, having a rounding bottom, *a*, and a tapering eduction-tube, B, passing through a central perforation in the said bottom, and rigidly secured thereto, with its upper edge *o* slightly above its upper inner surface, as shown in Fig. 1.

The vessel A is mounted upon a suitable stand or tripod, C, consisting of a ring, *c*, which is adapted to be received in an annular depression, *b*, at the point of union of the bottom *a* with its vertical sides, and of legs *c'*, rigidly secured thereto or cast therewith. It is also provided with a suitable handle, D, and a number of annular ridges, *d*, which are in the nature of graduations, for the purpose of indicating in an ascending scale from bottom to top the various divisions of liquid measure. E designates a flange or rim at the upper edge of vessel A above the upper ridge *d*, which is designed to allow the said vessel to be filled up to the said ridge for measuring the amount of liquid by it indicated, and to allow it to be carried about without danger of its contents being wasted by splashing over its edge, to the loss of the purchaser by such waste, and to the injury of the merchant by its falling upon surrounding objects. F desig-

nates a metallic rod rigidly secured, in a horizontal position, to the interior of vessel A, having a central perforation through which is passed the preferably cylindrical stem *g* of a vertically-movable cylindrical valve, G. This valve is provided, as to its bottom, with a leather coating or packing, *g'*, which is adapted to be held against the upper edge of eduction-tube B by means of the reaction of a helical spring, S, arranged upon the stem *g* of the said valve, as shown in Fig. 1. The upper end of valve-stem *g* is bent with a view to effecting an engagement with the weight end of a vertically-vibrating lever, H, having its fulcrum at *h* upon rod F, above described. The power-end of this lever is pivoted, at *i*, to a vertically-movable rod, I, which is guided as to its upper end in a horizontally-projecting shelf, J, and is terminated by a flat knob, K, beneath which, and rigidly secured to the said rod, is a catch, *k*, having its upper edge at right angles to the long axis of the rod.

When the rod I is thrust downward it actuates the lever H to raise the valve from its seat, as shown in Fig. 1 in dotted lines, and if the catch *k* be now engaged under the shelf J, as shown in Fig. 2, the valve will be held up from its seat for any desired length of time, allowing the fluid to escape through the eduction-tube into a jug or other narrow-necked vessel. By disengaging the catch from the shelf the reaction of the spring S will force the valve down upon its seat, holding it forcibly against the same and effectually preventing any escape of a liquid from the vessel.

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

The measuring-vessel A, having annular graduations *d d*, annular flange E, eduction-tube B, and shelf J, in combination with the rod F, valve G, spring S, lever H, and rod I, provided with catch *k*, substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN DUDLEY HUMPHREY.

Witnesses:

THOS. H. CRANLEY,  
WILLIAM A. HUMPHREY.