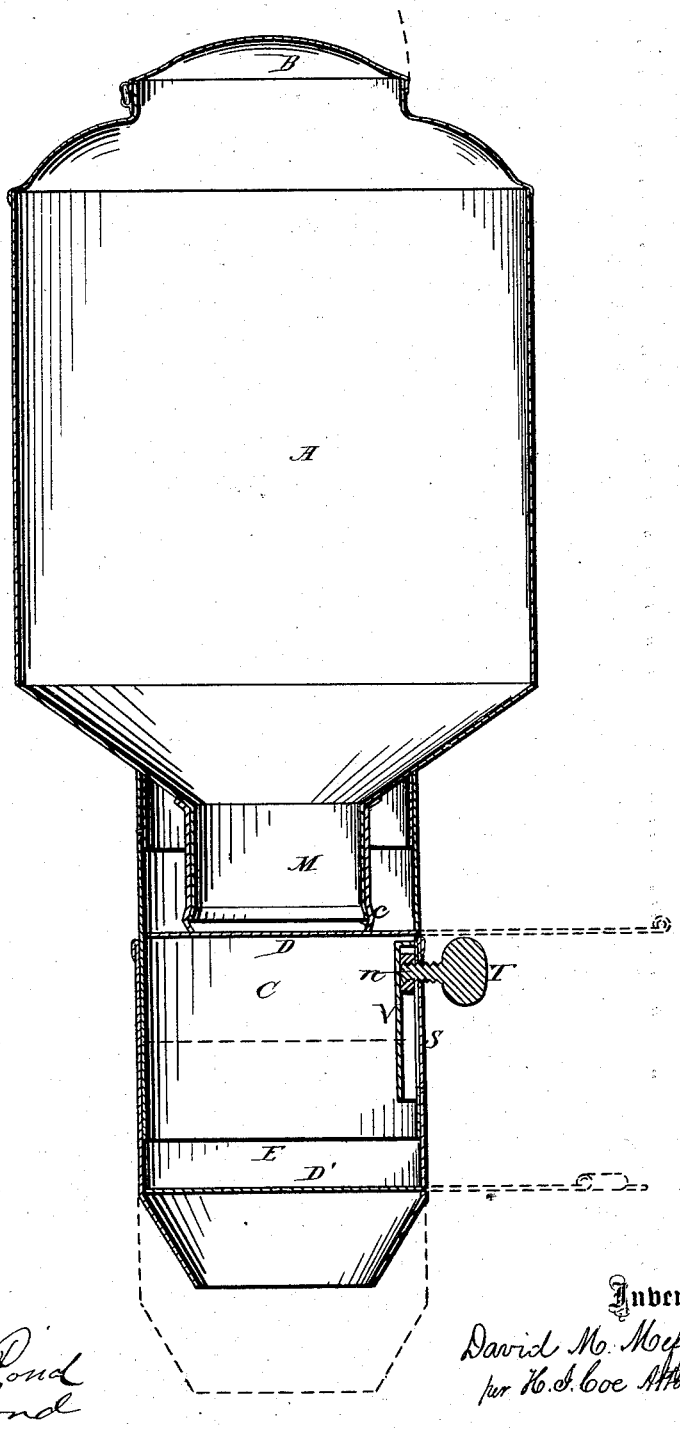
D. M. MEFFORD.

Dry-Measures.

No. 160,609. Patented March 9, 1875.



Witnesses:
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UNITED STATES PATENT OFFICE.

DAVID M. MEFFORD, OF TOLEDO, OHIO, ASSIGNOR TO AMERICAN INVENTION COMPANY.

IMPROVEMENT IN DRY-MEASURES.

Specification forming part of Letters Patent No. **160,609**, dated March 9, 1875; application filed February 8, 1875.

To all whom it may concern:

Be it known that I, DAVID M. MEFFORD, of the city of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Measuring-Cans; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains 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.

The nature of my invention consists in the new method of adjusting a can having at its bottom an egress or delivery spout, which may, within certain limits, be lengthened or shortened, so that accurate weights by measurement can be obtained of all articles of differing densities that will flow by their own gravity, as will be hereinafter more fully set forth.

The accompanying drawing presents a vertical section of my measuring-can, showing its various parts.

A represents the can having a tapering bottom, with a pitch sufficiently steep to secure the ready flow of its contents, and terminating in a rim or mouth-piece, M, around which is fastened a flexible curtain, *c*. B is a cap or lid, of any desired shape or size, covering a suitable opening in the top of the can, through which it can be filled. C is a cylinder attached to the tapering bottom of the can, and has a pivoted valve, D, operating horizontally through a slot in its side. This valve, when shut, closes the cylinder tightly and forms the top of the measure. The flexible curtain *c* sweeps this valve as it opens and shuts, and thus keeps its movements from being clogged or hindered by the contents of the can when granular. S is a vertical slot in cylinder C, protected within by a trough-like shield, V, which prevents the outflow of the contents of the measure through the slot, and forms a tube or trough in which the nut *n* may slide vertically. This shield may be closed at both ends, as well as at the sides, or it may be open at the bottom. To the nut *n* is attached a thumb-screw, T, which passes through the slot S. E is an adjustable cylinder, which can be moved up and down on cylinder C, and which has in it, near the top, a hole through which the thumb-screw T passes into the nut *n*. By the action of the thumb-screw and nut the two cylinders can be firmly clamped together at any desired point in their line of movement. In the lower part of the cylinder E is a pivoted valve, D′, operating horizontally through a slot in its side, and forming, when shut, the bottom of the adjustable measure. The lower end of cylinder E is somewhat tapering, to facilitate the packing of the goods that have been weighed.

The can may be made of metal, wood, paper, or any suitable material, and of any size or shape desired. The adjustable measure, preferably cylindrical, may be of any other shape that will allow the necessary adjustment. The can may be supported by a bracket or by columns or any suitable base, or it may be suspended from the shelves or ceiling in any convenient manner.

In operating this apparatus, shut the valves, fill the can through the opening in the top with the commodity, and close tightly the lid B. Then obtain the desired unit of weight by adjusting the delivery-tubes forming the measure, so that the space between the valves will hold that exact amount by weight, testing the accuracy of your adjustment by correct scales. Fasten the measure thus established by clamping firmly the thumb-screw and nut. Having thus obtained the proper-sized measure to give you the weight of the commodity you have decided to use as your unit of weight, all you have to do until the can is emptied is to open and shut alternately the valves D and D′. Whenever the can is filled anew the accuracy of the measure should be tested, and it should be shortened or lengthened, as the differing densities of the commodities introduced may require.

It will be found that the commodity in the can will almost instantaneously fill the measure by its own flow, and that each measure is the exact duplicate of that which preceded it.

While my can is specially adapted to the weighing of ground and unground coffees and spices and baking-powders, it may be used to advantage in weighing a great variety of other

articles, solid and liquid, that will flow by their own gravity.

In addition to the saving of time secured by weighing by measure, my scale-can has the great advantage of protecting its contents perfectly from exposure to the atmosphere, and thus not only keeps them from dust and moisture, but also saves them from loss of flavor and odor.

If preferred, scales may be kept under my can, and its contents will empty themselves into the scales more quickly and accurately than they can be otherwise put into it, the flow being regulated by the valves.

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

1. In a measuring-can, the shield V, substantially as and for the purposes specified.

2. The measuring-can A, provided with cylinders C and E, valves D and D′, shield V, and nutted thumb-screw T, substantially as and for the purposes specified.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

DAVID M. MEFFORD.

Witnesses:
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