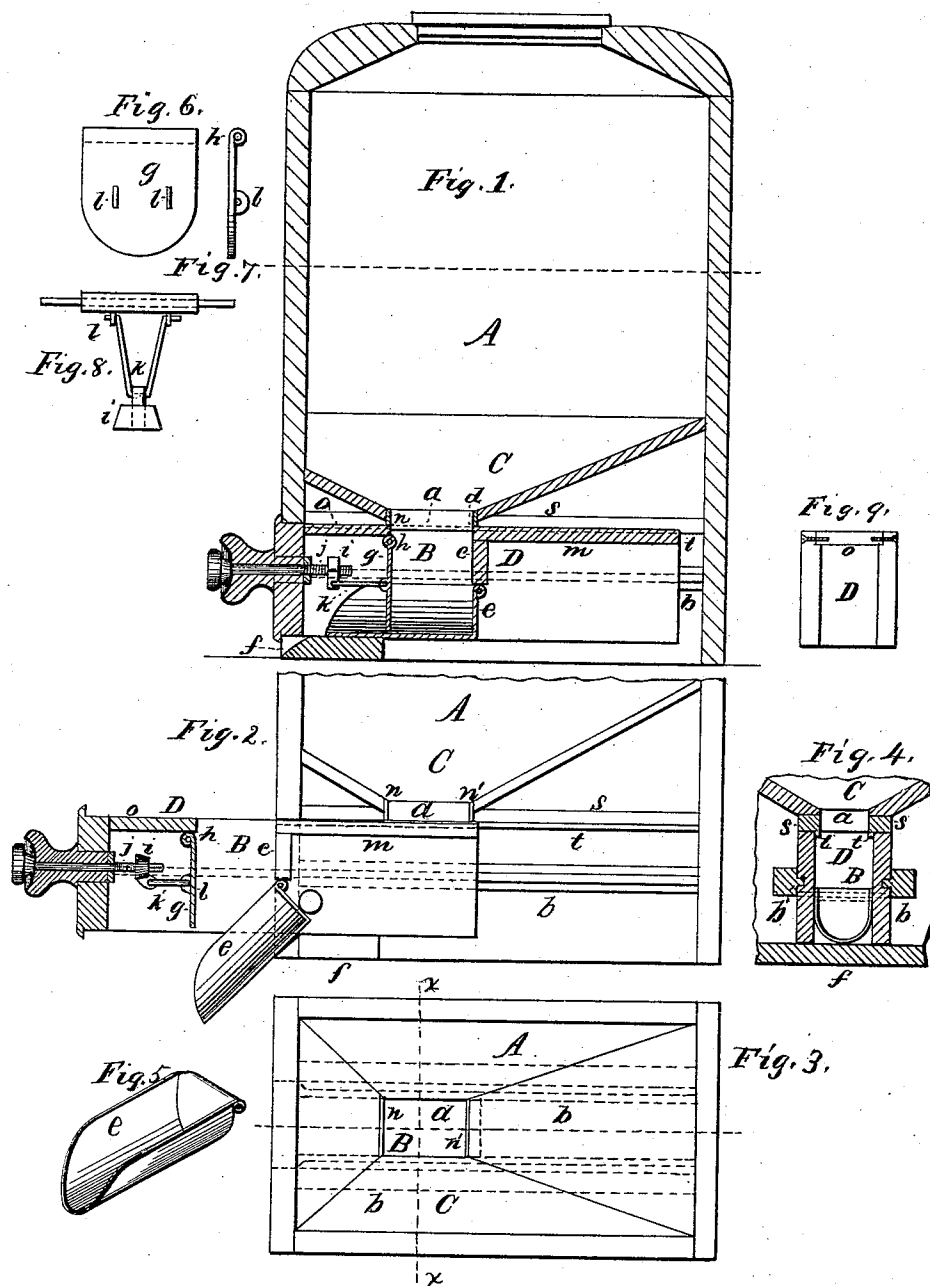


(No Model.)

R. I. JONES & A. L. AGATE.
MEASURING CADDY.

No. 471,670.

Patented Mar. 29, 1892.



Witnesses.
Frank Willson.
H. R. Willson.

Inventors.
Robert I. Jones.
Arthur L. Agate.
By H. F. Willson, their Attorney in fact.

UNITED STATES PATENT OFFICE.

ROBERT I. JONES AND ARTHUR L. AGATE, OF ELYRIA, OHIO.

MEASURING-CADDY.

SPECIFICATION forming part of Letters Patent No. 471,670, dated March 29, 1892.

Application filed March 19, 1891. Serial No. 385,710. (No model.)

To all whom it may concern:

Be it known that we, ROBERT I. JONES and ARTHUR L. AGATE, citizens of the United States, residing at Elyria, in the county of Lorain and State of Ohio, have invented a new and useful Measuring-Caddy, of which the following is a specification.

Our invention relates to improvements in measuring-caddies for grocers, used in handling coffee, oyster-crackers, and all other articles of a like dry nature.

The objects to be attained are, first, to render the measuring-compartment of the drawer adjustable as to size or capacity by a device not before used, so as to deliver the exact quantity at every draft to make just a pound or other constant quantity; second, a device for the purpose of preventing the grains of the material being measured from working into and through the interstices over the edges of the drawer and causing friction and waste, as well as litter; third, an automatic discharge-spout so rounded at the bottom in the form of an ordinary scoop as to enable the operator to draw any number of pounds into a sack without the use of any intermediate device, such as a funnel-shaped hopper, as heretofore used. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section in dotted line 1 1, Fig. 3. Fig. 2 is a vertical section in dotted line 1 1, Fig. 3, with the upper portion broken away and the drawer drawn out in act of discharging its contents. Fig. 3 is a horizontal section in 2 2, Fig. 1, the drawer removed. Fig. 4 is a transverse vertical section in dotted line *x x*, Fig. 3, having the case broken away, showing the drawer and parts sustaining it. Fig. 5 is a perspective view of the automatic spout. Figs. 6, 7, 8, and 9 are detached views of the graduating device used for regulating the quantity being discharged.

Similar letters refer to similar parts throughout the several views.

The case A of the caddy is made in the form illustrated in Figs. 1 and 3, having a hopper-shaped bottom C, for the purpose of promoting the discharge of the contents through the aperture *a*. Immediately below this aperture a drawer D is supported in position by means

of ways *b*, upon which it moves freely. (See Fig. 4.)

Compartment B in drawer D, exactly under aperture *a* when said drawer is shoved in, forms a receptacle for the material being measured.

c represents a solid wall of said compartment, which extends across the drawer and about half-way down, so that when the drawer is in position (see Fig. 1) the edge of the aperture *a* coincides with said wall *c*, as seen at *d*. At the lower edge of said wall *c* is hinged an automatic scoop-shaped spout *e*, the outer end of which rests on board *f*, by which it is supported in a horizontal position, as seen in Fig. 1. This spout forms a bottom for the compartment; but when the drawer D is drawn out the spout gravitates to the position seen in Fig. 2 and discharges the measured contents of the compartment into a sack or other receptacle.

g represents an adjustable plate hinged at its upper edge to an adjustable decking *o*, as seen at *h*, Figs. 1 and 9, so as to form the front wall of the compartment B. This plate at the lower edge is cut on a circle, as seen, Fig. 6, so as to conform to the inside of the spout. This plate is held rigidly in position by means of an adjusting device, which consists of nut *i*, traversing on thumb-screw *j*. Said nut is connected to the plate *g* by means of a spring connecting-wire *k*, which passes through one corner of the nut or through an ear formed thereon, and the ends pass through holes formed in suitable ears *l* on the plate *g*. Said screw *j* passes through and is fixed in the knob of the drawer, and is there so secured that it cannot move longitudinally. When this screw is revolved, the nut traverses back and forth and in so doing adjusts the plate *g* either out or in, as desired, thereby increasing or diminishing the capacity of the compartment B.

m represents a decking that covers the rear end of the drawer, extending backward from the wall *c*, and is flush with the upper side of the drawer, and serves as a cut-off and retaining-support to the material in the case above, while the charge in the compartment below is being carried forward and delivered. Decking *o*, to which plate *g* is hinged and which

covers the space between the plate *g* and front of the drawer, is arranged and secured to supporting-cleats by means of screws, so that it may be moved horizontally out or in by withdrawing the screws for the purpose of increasing or diminishing the capacity of the compartment B to accommodate the various classes of either light or heavy material, while the adjustment of the plate *g* answers to meet the difference in weight of different specimens of material of the same class.

n represents a strip of rubber packing, which is placed as seen in the the drawings and serves to strike off the material being measured when drawn under it, and also serves to prevent the crushing of brittle material, like oyster-crackers, when the drawer is drawn out under said strip.

n' represents another rubber strip secured, as seen in the drawings, to the back side of aperture *a* in such a position that it will sweep the decking *m* while passing under it.

s represents strips, which are secured in the case directly over the edges of the drawer, and each is provided with a lip *t*, which shuts down over the inside edges of the sides of the drawer and into grooves formed in the decking of the drawer, for the purpose of preventing small particles of grain—such as rice, oat-meal, and many other commodities—from working into and through the space above the drawer, which in practice is very important. *r* represents a pin, which is inserted in the side of the drawer to stop the drawer at the right point.

The operation of this apparatus is as follows: Coffee or other material consisting of dry grains or oyster-crackers is put into the case, which in practice is made large enough

to hold a barrel or sack of coffee. A charge is drawn out into the scale-pan and is weighed. If found too light or heavy, the plate *g* is adjusted either out or in by means of the screw until the charge drawn out will weigh exactly a pound. No two sacks of coffee or other material will when the bulk is equal weigh exactly the same, hence the necessity for a rigid and perfect adjustment. When it becomes desirable the change from one kind of material to another, either lighter or heavier, the adjustment obtainable by means of the screw-and-nut device will not always prove sufficient. Therefore the adjustment must be accomplished by moving the decking *o* either out or in to make the desired difference. By doing this the plate *g* is also carried out or in with the decking to which it is hinged.

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

The combination, in measuring-caddies, of a drawer D, supported and sliding on ways *b* and having a scoop-shaped automatic spout *e*, the adjustable plate *g*, hinged to adjustable deck *o* and operated by nut *i*, traversing over thumb-screw *j*, running through and being secured in stationary knob, the board *f* for supporting and operating the spout *e*, the lipped strips *s*, the rubber strike *n*, and the rubber strip *n'* for sweeping the decking *m*, the whole being arranged, constructed, and operating in the manner and for the purpose specified.

ROBERT I. JONES.
ARTHUR L. AGATE.

Attest:

A. J. THAYER,
L. W. MANVILLE.