A. S. WHEELER.

ADJUSTABLE MEASURE.

APPLICATION FILED NOV. 30, 1914.

1,172,508. Patented Feb. 22, 1916.

Fig. 1.

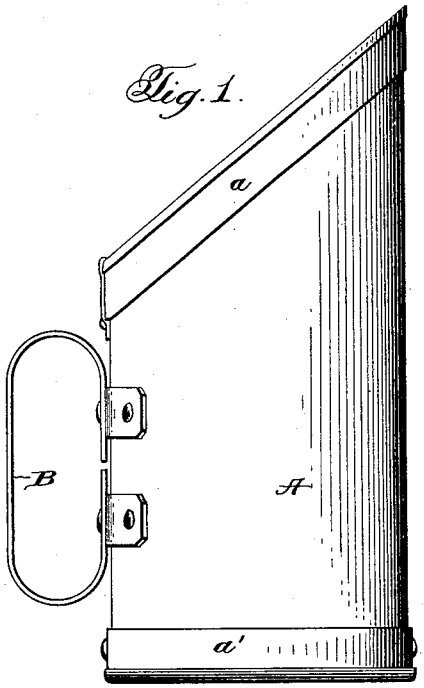


Fig. 2.

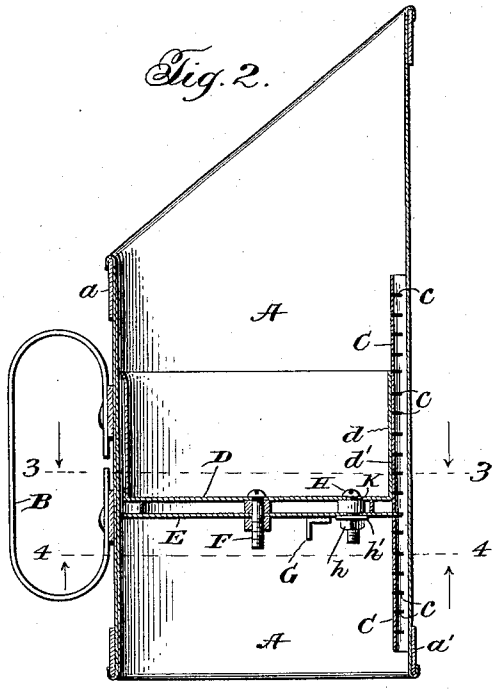


Fig. 3.

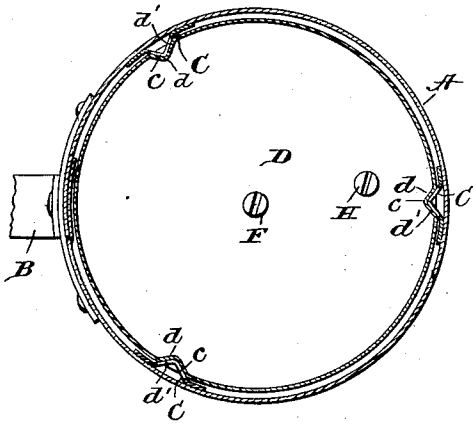
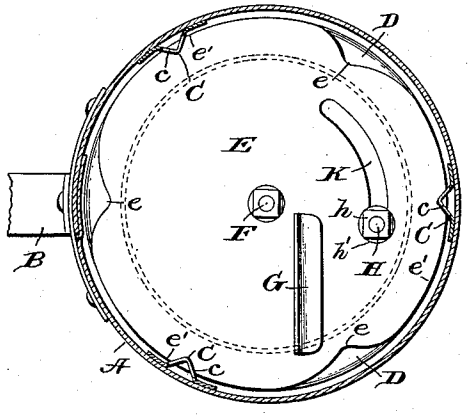


Fig. 4.



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ADJUSTABLE MEASURE.

1,172,508. Specification of Letters Patent. Patented Feb. 22, 1916.

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To all whom it may concern:

Be it known that I, ARTHUR S. WHEELER, a citizen of the United States, residing at Biltmore, in the county of Buncombe and State of North Carolina, have invented certain new and useful Improvements in Adjustable Measures, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to measures the capacities of which may be varied at will, whereby a single measure may be utilized for measuring different quantities and the necessity of keeping a number of measures of ranging sizes may be avoided.

The object of the present invention is to simplify and generally improve the construction of measures of this kind as heretofore used; to provide a more reliable and more easily operated locking device for securing the parts of the measure together in each adjustment; and to provide means for guiding the adjustable parts in their relative movements which means also constitutes a part of the locking means.

Other objects will appear as the description proceeds.

The invention will be first hereinafter described in connection with the accompanying drawings, which form a part of this specification, and then more specifically defined in the claims at the end of the description.

In the accompanying drawings: Figure 1 is a side elevation of a measure constructed in accordance with my invention; Fig. 2 is a central vertical sectional view of the same, the movable bottom being illustrated in an intermediate position; Fig. 3 is a top plan view, and Fig. 4 is an under plan view of the device.

As illustrated, the measure may have a cylindrical wall or body A provided with a suitable handle B. The body may be made of thin metal reinforced at the upper and lower edges by heavier strips *a* and *a'*, respectively, although any suitable body construction may be used.

On the inner surface of the body A there are fixed a plurality of longitudinal and preferably axially extending ribs C which may be V-shaped in cross section, as illustrated, and which are spaced apart at suitable intervals around the entire circumference of the body. Three equally spaced ribs C will answer my purpose very well, but more of them may be used in large measures.

The bottom D of the measure is fitted snugly to slide within the body A and may be provided with an upwardly extending peripheral flange *d* having grooves *d'* to accommodate and closely fit around the ribs C. By reason of this construction the ribs serve as guides for the bottom and prevent the latter from being rotated within the body of the measure. The provision of the extending peripheral flange tends to prevent sagging or twisting of the bottom in the body between adjustments.

The ribs C also constitute a part of the locking means for securing the bottom in its various adjustments, and to this end said ribs are provided with spaced notches or transverse slots *c* opening at their inner peaked edges, see Figs. 2 and 3. The notches in each of the ribs are spaced the same distance apart and corresponding notches in each rib are arranged on the same level, thus providing a series of locking notches on different levels within the body of the measure. As illustrated, each set of such locking notches comprises three, one in each of the three ribs which are eveny distributed around the body.

The other member of the locking means consists of a cam plate E centrally pivoted to the under face of the bottom D by a suitable pin or bolt F and having a series of notches *e* in its periphery, corresponding to the ribs C, so that said notches *e* may be brought into alinement with said ribs when the bottom is to be moved from one position to another. To secure the bottom in a desired position, the cam plate E is turned on its pivot F until the cam edges *e'* at the sides of the notches *e* in the periphery of said plate engage in the notches or slots *c* of one of the sets in the ribs C. A finger piece G projects from the under surface of the cam plate for turning the same. The rotation of the cam plate may be limited between locked and unlocked position in any suitable manner, as by the bolt H projecting from the bottom D through an arcuate slot K in the cam plate. Said bolt H may be fitted with a nut *h* and washer *h'*, whereby the cam plate may be clamped to the bottom D in locked position to prevent said plate from working out of the notches in the ribs when the measure is in use.

It will be observed that the use of three or more ribs evenly distributed around the body of the measure provides ample sup-

port for the bottom in any position and prevents sagging or twisting of the bottom when locked. The single centrally pivoted cam plate locks or unlocks on all sides at a single operation, thus simplifying the adjustment of the device. The finger piece G and clamping nut *h* are arranged near to one another on the under surface of the cam plate, so that said plate can be clamped in locked position after adjustment without removing the hand from the lower end of the measure.

Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States is:—

1. In an adjustable measure, the combination with a body, of a bottom adjustable in said body, guiding means for the bottom fixed to the interior of the body transversely of the plane of the bottom, said means holding the bottom against rotation, and means coöperating with the guiding means for locking the bottom in adjusted position.

2. In an adjustable measure, the combination with a body, of a bottom adjustable in said body, a plurality of spaced ribs fixed in the body transversely of the plane of the bottom and having a series of notches arranged parallel to said plane, and a rotary locking member pivoted on the bottom and adapted to engage notches in all said ribs at the same time.

3. In an adjustable measure, the combination with a body, of a bottom adjustable in said body, a plurality of ribs fixed at intervals around the interior of the body transversely of the plane of the bottom and having a series of notches arranged parallel to said plane, and a locking member pivoted centrally of the bottom and having cam portions on its periphery to interlock with notches in all the ribs at the same time.

4. In an adjustable measure, the combination with a body, of a bottom adjustable in said body, means for preventing the bottom from turning in the body, and rotary means on the bottom for locking the same in its various adjustments.

5. In an adjustable measure, the combination with a body, of a bottom adjustable in said body, rotary means for locking said bottom at different adjustments, and separate means for clamping said locking means against working out of locked position in use.

6. In an adjustable measure, the combination with a body, of a bottom adjustable in said body, a rotary locking device pivoted on the bottom and having an arcuate slot therein, a bolt extending from the bottom through said arcuate slot, and a clamping nut on said bolt for the purpose specified.

7. In an adjustable measure, the combination with a body, of a bottom adjustable in said body, a rotary locking device pivoted on the bottom and having an arcuate slot therein, and a projection from the bottom extending into said slot for limiting the rotation of said locking device.

8. In an adjustable measure, the combination with a body, of a bottom adjustable in said body, a rotary locking device pivoted on the bottom, a finger piece on said locking device, and means for clamping said locking device against working out of locked position, said means being arranged adjacent the finger piece for the purpose specified.

9. In an adjustable measure, the combination with a body, of a bottom adjustable in said body, a plurality of ribs fixed at intervals around the interior of the body transversely of the plane of the bottom and having a series of notches arranged parallel to said plate, and a rotatable locking plate centrally pivoted to the bottom and having notches in its periphery to register with said ribs when the bottom is being moved from one adjustment to another, there being cam edges at the sides of said notches in the plate for engaging the notches in the ribs to lock the bottom in a desired adjustment.

10. In an adjustable measure, the combination with a body, of a bottom adjustable in said body, ribs in the body, the bottom having notches in its periphery to fit around said ribs for guiding said bottom in its movement in the body, a peripheral flange on said bottom having grooves in alinement with the notches in the bottom and also fitting around the ribs, and means to lock the bottom at different adjustments in the body.

11. In an adjustable measure, the combination with a body, of a bottom adjustable in said body, ribs in the body for guiding the bottom, said ribs being V-shaped in cross section and having slots opening on the inner edge and extending into two sides of said V-shaped ribs, and a locking plate mounted on the bottom and adapted to engage said slots in the ribs for the purpose specified.

In testimony whereof I have affixed my signature in presence of two witnesses.

ARTHUR S. WHEELER.

Witnesses:
F. F. CLAPP,
J. T. REDMON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."