

No. 657,000.

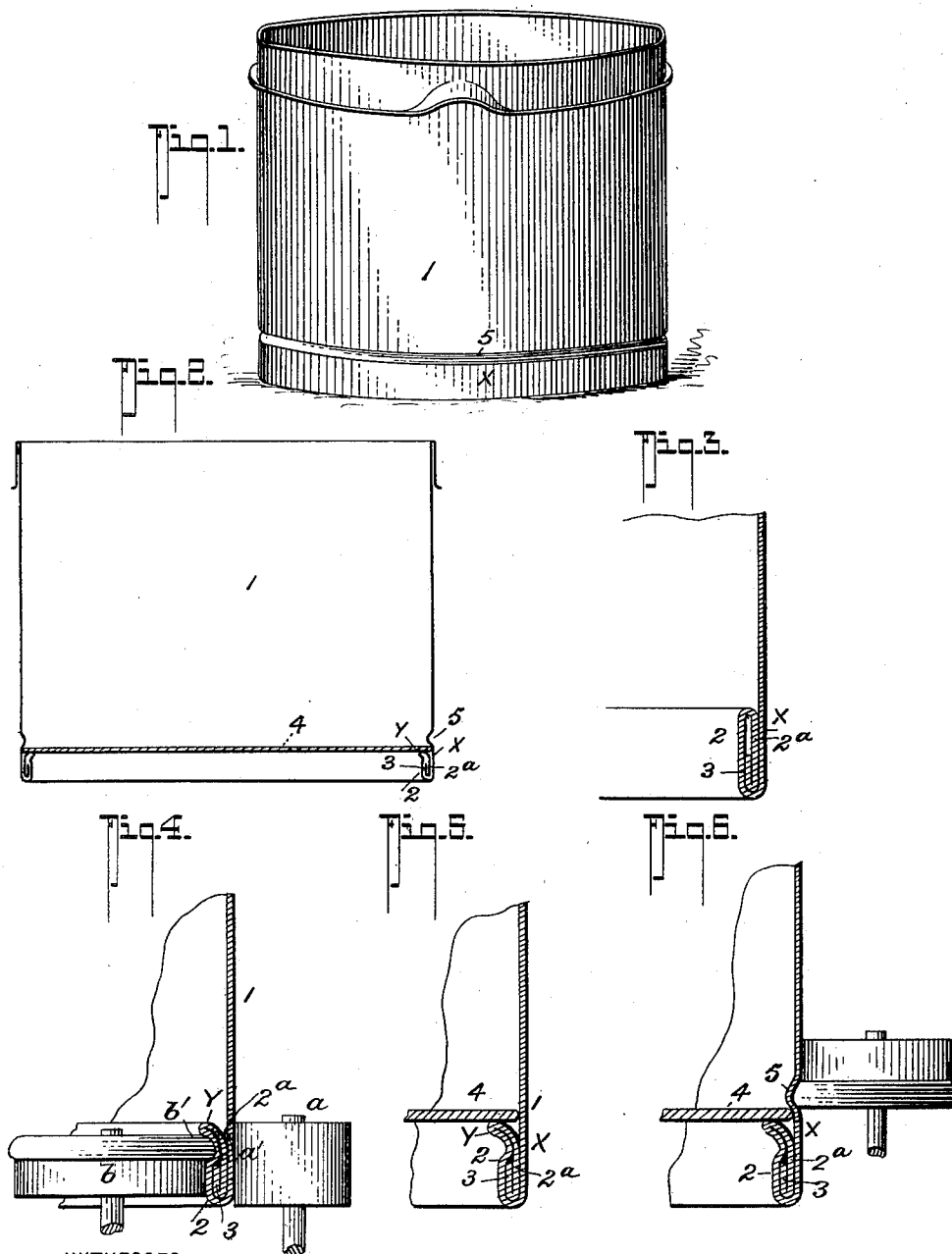
Patented Aug. 28, 1900.

G. W. McKIM.

METALLIC MEASURING VESSEL.

(Application filed June 19, 1900.)

(No Model.)



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METALLIC MEASURING VESSEL.

SPECIFICATION forming part of Letters Patent No. 657,000, dated August 28, 1900.

Application filed June 19, 1900. Serial No. 20,849. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. MCKIM, residing at Martin's Ferry, in the county of Belmont and State of Ohio, have invented certain new and useful Improvements in Metallic Measuring Vessels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improvement. Fig. 2 is a vertical section of the same. Fig. 3 is a vertical section, on an enlarged scale, of the lower or chime end, illustrating the manner in which the metal is bent to form the said chime end. Fig. 4 is a similar view illustrating the manner in which the chime end is treated to produce my improved construction of vessel. Fig. 5 is a view illustrating the manner in which the bottom is set in position. Fig. 6 is a view showing the manner in which the lower end of the bottom is swaged to form an internal locking-flange for retaining the bottom in position.

Heretofore in the manufacture of metallic dry measures intended for hard and rough usage—such, for example, of the type shown in my Patent No. 212,721, dated February 25, 1879—it has been the custom to form the bottom portion of a single sheet of metal, with one edge folded over in one or more layers to produce a thickened chime portion, the several folds being so arranged that the upper end of one or more members thereof form a rest for the bottom of the vessel to seat on. In the manufacture of metallic vessels having a chime portion made up of a series of folds, as aforesaid, it has been found necessary to provide a secure rest or supporting edge for the bottom plate to use a number of folds to produce a required thickness to make the upper or bottom seat of the chime project sufficiently inward, so as not alone to support the said bottom, but also to serve as a permanent means for preventing the bottom plate being pushed down through the chime end. Again, when but a single inturned fold has been used—as shown, for example, in Fig. 2 of my patent aforesaid—the bottom-supporting portion thereof of necessity must be bent out quite a considerable way from the wall of the vessel. This latter construction produces an inner fold having a flexibility too

great to permanently stand against rough usage, as the frequent hammering on the bottom by constant dropping of merchandise into the vessel, &c., soon causes the said rest portion to bend down to such an extent as to make the joint of the bottom with the body of the vessel weak and loose and unfitting the vessel for measuring dry articles of grain-like form. My present invention particularly lies in the novel construction of the chime end of the vessel, and it comprehends in its complete construction a vessel having the folded portions closely compressed and the upper or rest portion of the folded portion made to project inwardly in such manner as to provide a sufficient offset (made of a single fold) to support the bottom, and thereby save one or more extra folds for producing the required shoulder or rest for the bottom, as has heretofore been frequently found necessary.

In its more subordinate features my invention consists in certain details of construction and arrangement of parts, all of which will hereinafter be described, and particularly pointed in the claims.

In the practical manufacture of my improved metallic vessel the blank sheets that form the body 1 are cut to the required sizes, and one edge, which I shall term the "lower," is turned in to form a single fold 2, and the extreme end of said fold 2 is turned down to form an inner member 2^a, and the said fold member is again turned up, as at 3, to form a reinforce or thickened part, which ends midway of the folds 2 2^a, the purpose of which will be presently explained. It will be noticed by reference to Fig. 3 that when the folds forming the chime end of the vessel are first turned they do not lie in a compact or solidified manner against the outer wall of the rim X of the body, they leaving, as it were, the rest part Y of the fold loose and springy. Furthermore, when thus bent the rest portion does not uniformly project inward from the rim X, and the base part of the chime is thus formed of one or more thicknesses, separated from each other, which makes an imperfect construction. In my present construction the folds 2, 2^a, and 3 are tightly pressed and the upper or rest portion Y made to project inwardly sufficient to form a rigid

and uniform resting flange or rim for the bottom fold to seat upon.

In the manufacture of my said present construction of vessel the special forming and finishing of the chime end is effected at the same time that the sheet or body portion is passed through the bending or forming rolls that press the sheet or body portion in shape for riveting, and for such purpose the chime end is made to pass between a pair of rolls *a b*, one of which has a flat bearing-surface *a'*, adapted to bear against the outside of the rim *X*, while the other, *b*, has an annular convex rim or flange *b'*, that engages the inside fold 2 of the chime at a point just above the upper edge of the upturned fold 3. This latter method of compressing the chime end of the vessel effects a twofold advantage and result. Furthermore, it serves to crowd the folds 2 2^a tightly against the fold 3 and the folds 2, 2^a, and 3 tightly against the lower end of the rim *X*, the whole being compressed so closely together, as it were, to form practically a solidified or bottom rim having sufficient thickness to withstand any rough use, jarring, &c., and, secondly, it allows for buckling the inner fold 2 at a point just over the upper end of the fold 3, and by reason of the flange *b'* pressing against the fold surface *X* and the flat folded portions 2 2^a it will cause the upper end of the folded portions 2 2^a to close together as one member and to bulge inward sufficiently to form a positive rest-rim for the bottom to seat upon. After the chime is finished in the manner described the bottom plate 4 is inserted, said bottom plate having the internal shape of the vessel, with its peripheral edge made to snugly fit the inner wall of the vessel. After the bottom is thus fitted in place the vessel is revolved through a swaging-machine, which forms an inwardly-

bent annular rim 5, that laps over the upper end of the rim, and thereby securely holds the said bottom between two shoulders, the whole making a good and cheaply-constructed measure adapted for all the rough usages that measures of this kind are ordinarily subjected to.

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

1. A metallic vessel the side walls of which are made of a single sheet of metal having one of its ends folded over inwardly as at 2, said end being folded down adjacent the rim part of the chime end as at 2^a, its free end being turned up between the folds 2 2^a to form a reinforce 3, the folded parts 2 2^a being compressed together at a point above the upper edge of the reinforce-fold 3 and the bottom member 4, substantially as shown and described.

2. As a new article of manufacture, a metallic vessel the side walls of which are made of a single sheet of metal having its lower end turned downwardly and outwardly to form a fold 2^a, and then upward between the folds 2 2^a, to a point nearly midway thereof, the contiguous portions of the folds 2 3 2^a being closely compressed and formed with an annular groove or depression at a point over the end of the reinforce portion 3, the upper end of the folds 2 2^a, being curved inwardly to form an annular rest member *Y*, the bottom 4, the body of the vessel having an annular inwardly-projecting swaged flange for holding the bottom 4 upon the annular seat portion *Y*, all being arranged substantially as shown and for the purposes described.

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Witnesses:

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