

J. W. SPURLOCK.
SELF MEASURING BIN.
APPLICATION FILED MAY 20, 1912.

1,058,269.

Patented Apr. 8, 1913.

2 SHEETS—SHEET 1.

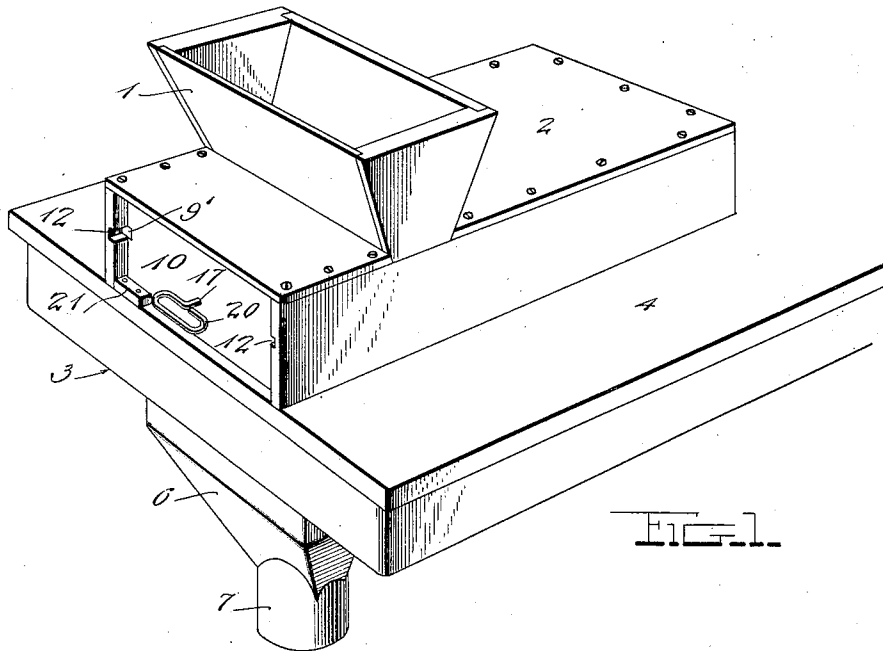


FIG. 1

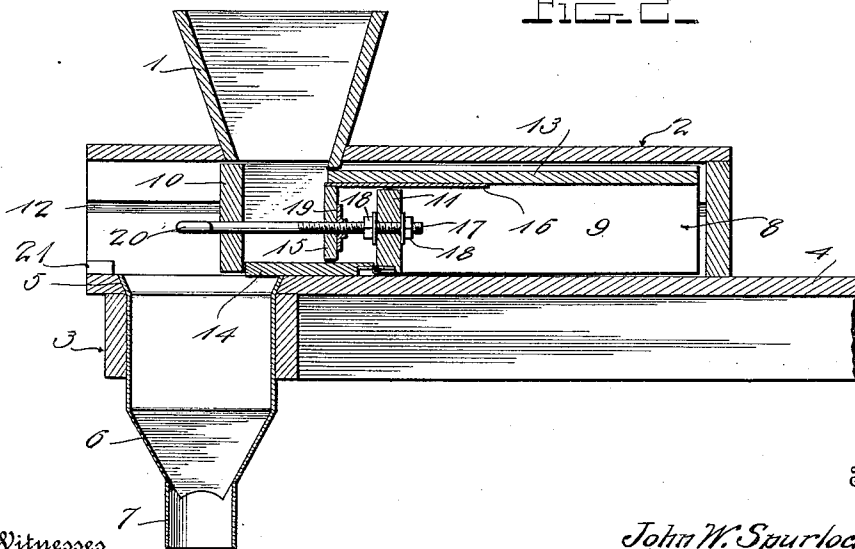


FIG. 2

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Witnesses

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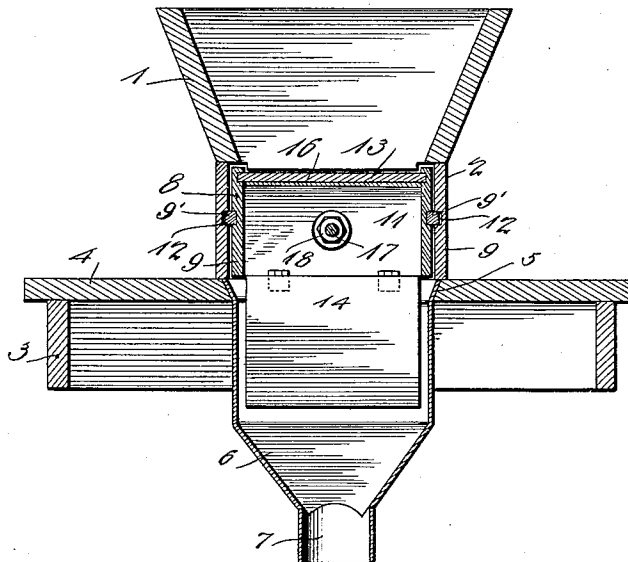
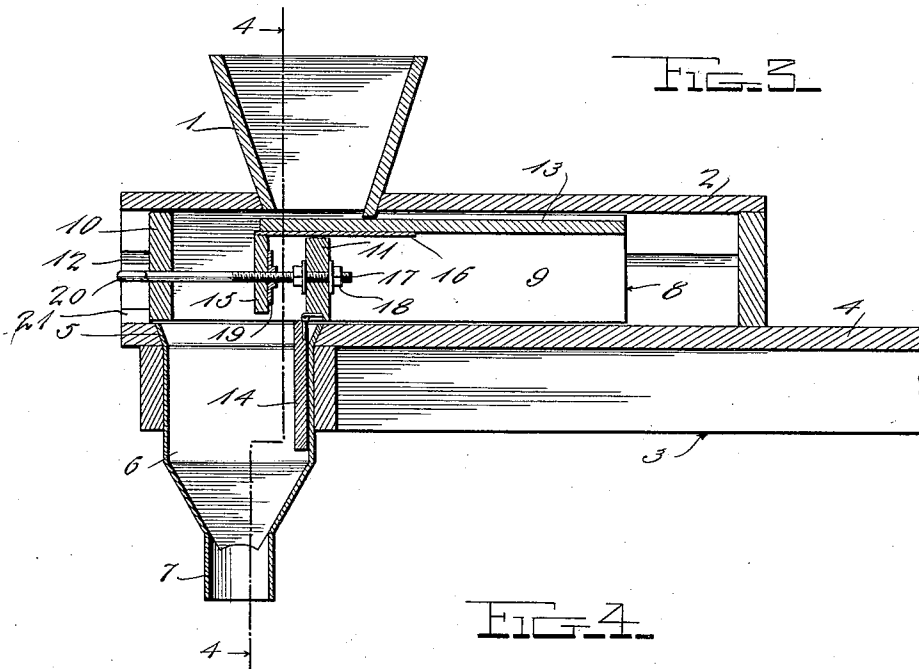
Attorneys

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UNITED STATES PATENT OFFICE.

JOHN W. SPURLOCK, OF WAYCROSS, GEORGIA.

SELF-MEASURING BIN.

1,058,269.

Specification of Letters Patent.

Patented Apr. 8, 1913.

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To all whom it may concern:

Be it known that I, JOHN W. SPURLOCK, a citizen of the United States, residing at Waycross, in the county of Ware and State of Georgia, have invented certain new and useful Improvements in Self-Measuring Bins; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in self measuring bins.

One object of the invention is to provide a bin having an improved construction and arrangement of discharging mechanism, whereby, the contents of the bin may be automatically measured when discharged or delivered therefrom.

Another object of the invention is to provide a bin having an automatic measuring mechanism which may be adjusted to vary the size or capacity thereof, whereby, more or less of the contents of the bin will be delivered at each operation of the discharging mechanism.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings; Figure 1 is a perspective view of a portion of a table or counter showing one of my improved bins applied thereto; Fig. 2 is a vertical longitudinal section of the same showing the parts of the measuring mechanism closed or in inoperative position; Fig. 3 is a similar view showing the measuring mechanism in operative position for delivering a measured quantity of goods from the bin; Fig. 4 is a vertical cross section taken on the line 4—4 of Fig. 3.

Referring more particularly to the drawings 1 denotes one of my improved bins, the walls of which incline from the top toward the bottom of the bin. The bin is supported and arranged at a suitable position on a drawer casing 2 with which the lower end or bottom of the bin connects. The drawer casing 2 is secured in any suitable manner to the top of a table, counter, or other suitable support 3 and the top 4 of said table or counter forms the bottom of the casing. The inner end of the casing 2 is open and in the top 4 of the table or counter below

the inner end of the drawer casing 2 is a discharge opening 5 in which is secured the upper end of a chute 6, the lower end of which is tapered or reduced to form a funnel 7 with which the bag or receptacle for receiving the contents of the bin is engaged.

Slidably mounted in the drawer casing 2 is a drawer 8 comprising side members 9, a front end piece 10 and a back piece 11, said back piece being spaced from the front piece a sufficient distance for forming a measuring compartment of the desired size. The side members 9 of the drawer extend back for a suitable distance beyond the back piece of the drawer and on the outer sides of the side members are longitudinally disposed guide ribs 9' which slidably engage guide grooves 12 in the inner surfaces of the sides of the drawer casing 2, whereby, the drawer is guided and prevented from binding in the casing. Secured to the upper edges of the side members 9 between the back piece 11 and the inner ends of said side members is a top piece 13 which braces and holds the side members in position. The compartment of the drawer between the front and rear end pieces is closed by a bottom 14 which is hinged at its inner edge to the lower edge of the back piece 11, whereby, said bottom is permitted to drop for the purpose of discharging the contents of the compartment as will be hereinafter more fully described.

In order to regulate the size of the measuring compartment between the front and rear plates 10 and 11, I provide a transversely disposed partition 15 which is slidably mounted between and has its ends closely engaged with the inner surfaces of the side members 9. To the upper edge of the partition 15 is secured the outer end of a follower or closing plate 16 which slides between the upper edge of the end piece 11 and the lower side of the top piece 13 of the drawer. The partition 15 and follower plate 16 are adjusted to regulate the size of the measuring compartment by means of an adjusting screw 17 having its inner end revolubly mounted or swiveled in the end piece 11 to which said screw is secured against longitudinal movement by stop nuts 18 arranged on the screw and engaging the opposite side of the end piece 11 as shown. Secured to one side of the partition 15 is an adjusting nut or plate 19 having therein a threaded passage with which the screw

17 is operatively engaged, and whereby, when the screw is turned in one direction or the other, the partition 15 will be shifted forwardly or rearwardly to vary the size of the drawer compartment. The outer end of the screw 17 projects through and has a loose revoluble engagement with the front end plate 10 and on the outer end of the screw is arranged a suitable handle 20, whereby, the screw may be readily operated to adjust the partition. The handle 20 of the screw also serves as a handle or pull for the drawer, whereby, the latter may be operated for discharging the contents of the bin.

In the operation of the device, the partition 15 is first adjusted by means of the screw 17 to form a compartment of the desired capacity, said capacity being determined by weighing up the desired quantity of goods to be measured and placing this weighed quantity into the compartment, after which, the partition 15 is adjusted by the screw 17 toward the front end of the drawer thus crowding the goods in the compartment together until the goods entirely fill the compartment, whereupon, it will be known that a compartment of this size will hold exactly a certain amount or weight of goods. In thus adjusting the partition it will be understood that the follower or cover plate 16 is also adjusted to close the portion of the drawer or compartment between the partition and the rear piece 11 of the drawer. After the partition and plate 16 have thus been adjusted, the drawer is pulled out to its greatest extent or until the front piece 10 thereof is brought into engagement with a stop 21 arranged on the counter at the inner end of the drawer casing. When the drawer is thus drawn out, the top piece 13 which connects the rear portions of the side members 9 will be drawn across the lower end of the bin, thereby, closing the latter. After the bin has thus been closed, the goods to be measured are placed in the bin. In order to discharge the goods from the bin when the parts are in this position, it is first necessary to push the drawer back to its extreme rearward movement in the casing 2 which operation will bring the exposed part of the measuring compartment of the drawer beneath the bin. In this rearward movement of the drawer, the hinged bottom 14 is swung upward and held in closed position by the engagement thereof with the rear edge of the opening 5 in the top 4 of the table, said bottom being held in closed position by the top of the table or counter with which the bottom of the drawer is now engaged. When the exposed part of the measuring compartment has thus been brought beneath the bin, said compartment will be immediately filled from the bin. The drawer is now pulled forward to the

outer end of the drawer casing which operation will bring the plate 16 and the top piece 13 of the drawer across the open lower end of the bin, thereby, closing the latter and preventing a further discharge of the contents thereof. As soon as the drawer has been pulled forwardly to a sufficient extent to bring the hinged bottom 14 of the measuring compartment over the opening 5 in the top of the table or counter and over the upper end of the chute 6 the weight of the goods in the measuring compartment will immediately swing the bottom 14 downwardly thereby discharging the contents of the measuring compartment into the chute which will conduct the same to the bag or receptacle engaged with the funnel shaped lower end of the chute. It will thus be seen that after the partition 15 has been adjusted to regulate the size of the measuring compartment for holding the predetermined quantity or weight of goods that in order to obtain any subsequent measurements of this quantity, it is simply necessary to reciprocate the drawer in the manner described so that for instance should the partition be adjusted to form a measuring compartment holding five cents worth of the goods contained in the bin, one operation of the drawer will deliver five cents' worth of the goods and should it be desired to obtain ten cents' worth it will simply be necessary to operate the drawer twice.

It is obvious that the parts below the bin may be duplicated and each drawer provided with a measuring compartment of different capacity, whereby various quantities of goods can be readily obtained by simply operating one or more drawers. In this instance each drawer would be provided with a measuring mechanism as shown and described.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined and claimed.

Having thus described my invention, what I claim is:

In a measuring device of the character described, a table having therein a discharge opening, a chute connected therewith, a drawer casing arranged on said table over the opening therein, said casing having therein a discharge opening, a bin arranged over said opening, a drawer slidably mounted in said casing and having in one end thereof a measuring compartment adapted to be brought into and out of engagement

with the discharge opening in said drawer casing and the opening in said table, a hinged bottom to close said compartment when connected with said bin, whereby, the
5 contents discharged from the bin are caught in said compartment and, whereby, when the drawer is reciprocated to bring said compartment over the opening in the table, said bottom will drop and permit the contents
10 of the compartment to drop into said chute, a partition slidably mounted in said measuring compartment, a screw arranged in said compartment and having an operative engagement with said partition, whereby, the

latter is shifted to regulate the size of the 15 compartment and the latter thus adapted to receive the desired quantity of goods from the bin, and a follower plate movable with said partition to close the space between the same and the inner end of the compartment. 20

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN W. SPURLOCK.

Witnesses:

TOM LEWIS,

R. T. KENNEDY.

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