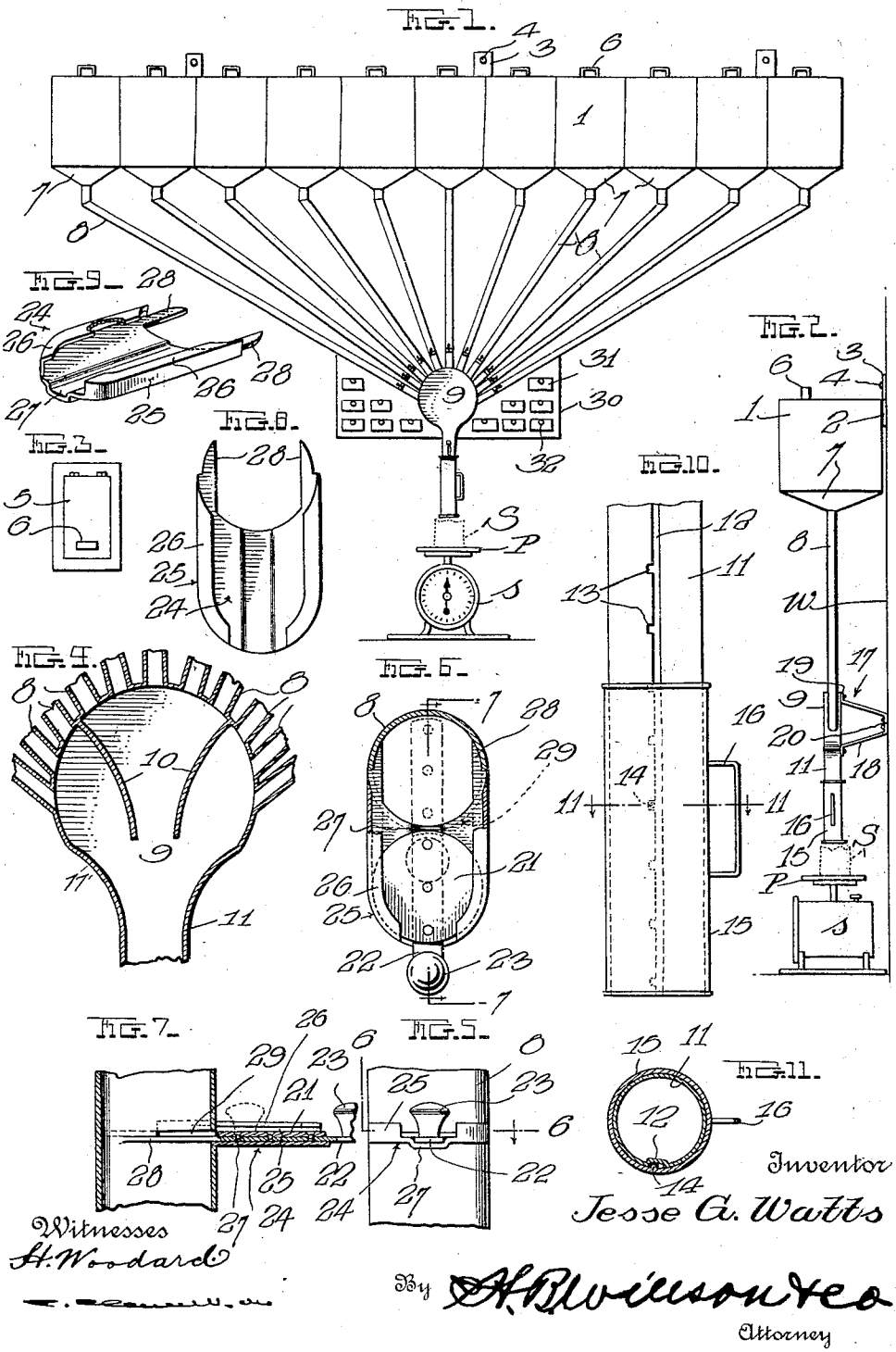
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STORE CABINET.

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1,205,494. Patented Nov. 21, 1916.



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STORE-CABINET.

1,205,494. Specification of Letters Patent. Patented Nov. 21, 1916.

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To all whom it may concern:

Be it known that I, JESSE G. WATTS, a citizen of the United States, residing at Mayfield, in the county of Graves and State of Kentucky, have invented certain new and useful Improvements in Store-Cabinets; 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 store furniture and more particularly to cabinets from which various commodities may be dispensed in an expeditious and satisfactory manner.

The object of the invention is to provide a cabinet of this character so constructed that any desired quantity of any desired commodity may be readily discharged into a sack or other receptacle.

Another object of the invention is to provide an improved cut off or valve for use in connection with the distributing or dispensing pipes of a cabinet.

With the above and other objects in view, the invention resides in certain novel features of construction, and the combination and arragement of parts which will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 represents a front elevation of a store cabinet constructed in accordance with this invention; Fig. 2 is an end view thereof with the surplus containing drawers or trays omitted; Fig. 3 is a top plan view of one of the bins employed in this improved cabinet; Fig. 4 is an enlarged vertical section through the drum and the adjacent ends of the distributing pipes, the pipes being shown broken off; Fig. 5 is an enlarged front view of a portion of one of the distributing pipes in which the cut off or valve is mounted; Fig. 6 is a horizontal section taken substantially on the line 6—6 of Fig. 5; Fig. 7 is a detail vertical section taken on the line 7—7 of Fig. 6; Fig. 8 is a plan view of the valve supporting member; Fig. 9 is a perspective view thereof with parts broken out; Fig. 10 is an enlarged front elevation of the discharge pipe connected with the drum; Fig. 11 is a transverse section taken on the line 11—11 of Fig. 10.

In the embodiment illustrated, a store dispensing or distributing cabinet is shown comprising a plurality of article containing bins 1, any desired number of which may be employed, eleven being here shown and which may be mounted in any suitable or desired manner. These bins 1 are here shown arranged side by side in longitudinal alinement, and secured to a cross bar 2 at the rear thereof, said bar being provided with upwardly extending attaching brackets 3 having apertures 4 for engaging nails or other supporting elements on a wall or other support. These bins 1 are shown closed at their upper ends by hinged closures 5, each of which has a handle 6 to facilitate the opening and closing thereof. These bins also have hopper-like bottoms 7 with a discharge tube or pipe 8 leading from the apex of each of said bottoms, said pipes converging toward a common center and being connected at their lower ends to a dispensing drum 9 which is to be understood as defining a hollow cylinder having closed ends constituting heads. This drum 9 is about three inches from end to end according to the diameter of the pipes to be connected therewith, said pipes being preferably about two inches in diameter and their lower discharge ends are arranged as close together as possible around the periphery of the drum 9, said drum being disposed edgewise with its periphery toward the bins and with one of its ends extending toward the front. As shown, this drum is provided on its interior inwardly with two depending baffle or deflecting plates 10, said plates being secured at one edge to the inner concave face of the periphery of the drum and curved in opposite directions with the convexed portions thereof disposed toward each other as is shown clearly in Fig. 4, and with their lower ends or edges converging and disposed over the drum outlet to be described. These plates 10 extend the full length of the drum 9 and are designed to prevent the material or articles discharged into the drum through the respective pipes 8 from being whirled around within the drum, and they direct said material toward the discharge spout of the drum which is here shown in the form of a pipe 11 opening through the lower portion of the periphery of the drum. The walls of the drum at the junction of the discharge spout therewith are curved inwardly as shown at 11′ in Fig. 4 to facilitate the discharge of the contents of the

drum through said spout and prevent clogging thereof. This pipe 11 may be of any suitable or desired length and is here shown provided with a longitudinally extending groove 12 in its outer face, said groove being here shown extending substantially throughout the length of said pipe and is provided in one of its side walls with a plurality of longitudinally spaced recesses or notches 13. These notches 13 are designed to form retaining seats for a stud or pin 14 which extends radially inward from the inner face of a pipe section 15 which is telescopically engaged with the pipe 11, said pipe 11 fitting in the section 15. This pipe section 15 is open at both ends and the pin 14 thereof is designed to enter the groove 12 of the pipe 11 and thereby guide the section 15 when moved up or down on the pipe 11, and when said section 15 has been adjusted at the proper height the pin 14 is seated in one of the recesses 13 and said section is thereby held in adjusted position. This pipe section 15 has a laterally extending handle 16 at one side thereof to facilitate its adjustment, said handle being here shown in the form of a bail-shaped loop, but obviously it may be of any suitable or desired construction.

An attaching bracket 17 is here shown projecting laterally from the rear end of the drum 9. This bracket, as shown, is substantially truncated V-shaped in form with the free ends of the arms 18 thereof bent laterally outward and apertured to form attaching fingers 19 which are secured to the rear end of the drum 9 by screws or other fastening elements. The truncated end 20 of the bracket 17 is also apertured to receive fastening elements for connecting it to the wall W or other support.

Each of the pipes 8 has a cut-off valve in its lower end adjacent the drum which is mounted to slide transversely across the pipe for discharging the desired commodity through the drum 9 and its outlet pipe 11 into the sack S or other receptacle disposed below the lower end of the pipe section 15. Each of these cut-off valves is shown in the form of a disk 21 of a size corresponding to the interior of the pipe end in which it is to be mounted, so that when moved inward to its full limit said pipe will be closed. This disk 21 has a reinforcing strip 22 extending transversely across its lower face and secured thereto by riveting or otherwise, one end of said strip projecting beyond the front edge of the disk and provided with an upstanding knob 23 which constitutes a handle for operating the disk. A support and guide for the disk 21 is shown in the form of a plate 24 which has its front end curved to conform to the shape of the disk to be mounted thereon, and is provided along its side edges with upstanding flanges 25 having inturned lips 26 which form a guide for the disk in its opening and closing movements, and hold it in operative engagement with the plate, preventing it from becoming accidentally detached and lost. The front ends of the lip carrying flanges 25 are spaced apart at the rounded front end of the plate a sufficient distance to permit the strip 22 carried by the disk 21 to project therethrough to position the knob 23 convenient to the user. This plate 24 is also provided with a longitudinally extending centrally disposed depression 27 to receive and guide the strip 22 carried by the disk 21, as is shown clearly in Figs. 5 and 9. The rear end of the plate 24 is provided with longitudinally extending arms 28 at its opposite sides, said arms being arranged flush with the body portion of the plate and adapted to extend transversely into the tube 8 with which the plate is to be connected through a peripherally formed slit 29 in said tube, said slit being here shown extending around about one-half of the periphery of the tube to permit the disk 21 to readily enter and leave the tube, as will be hereinafter more fully described. The flanges 25 and lips 26 are curved at their rear ends to conform to the curvature of the outer face of the tube to which the device is to be applied and are adapted to snugly engage the opposite sides of said tube adjacent the opposite ends of the slit-like opening therein and to be soldered or otherwise connected with the tube to assist in supporting the plate thereon. The arms 28 which extend into the tube are also designed to be soldered along the edges which engage the tube to hold the plate securely in position relative to the tube and these arms, when so inserted, form supports for the disk 21 when in closed cut-off position, thereby preventing the weight of the material in the pipe 8 which rests on said disk from forcing the disk downwardly into the tube. The width of the plate 24 at the widest portion thereof is of substantially the same width as the diameter of the disk 21 so that the disk is held by the flanges 25 of said plate against lateral movement, thereby insuring proper positioning thereof relative to the slit-like opening 29 in the tube through which said disk is designed to travel in its inward and outward movements. The opening 29 is of a width equal to the combined thickness of the disk 21 and the plate 24 except at the front portion thereof through which the strip 22 enters, and at this point said opening is made wider or deeper to permit the strip 22 carried by the disk to enter therethrough.

The arms 28 carried by the plate 24 which extend into the tube 8, form a support for the disk 21 when in closed position, termi-

nating at their inner or rear ends at points spaced from the rear wall of the tube as is shown clearly in Fig. 6, so that when the disk 21 is moved inward into closed position, any material which may be held on these arms will be pushed off by the edge of the incoming disk and caused to drop down into the tube and thereby prevent binding of the disk and interference with the closing thereof.

As shown, a casing 30 is mounted on the cabinet at any suitable or desired position, preferably adjacent the drum 9, and is provided with a plurality of what may be termed overflow trays, here shown in the form of drawers 31 mounted to slide in the casing 30 which houses them and protects the contents thereof, each of said drawers being provided with a handle 32 to facilitate its opening and closing. These drawers 31, any desired number of which may be employed, but which preferably correspond in number to the number of bins contained in the cabinet, are designed to receive any overflow which may be discharged from the respective pipes during the discharging of the contents thereof. For instance, should a greater quantity of coffee or other material be fed through one of the pipes than it is desired to distribute to a customer or other person, the excess is placed in the drawer which corresponds to the coffee bin, it being understood that these drawers and bins are provided with similar marks to indicate the drawers and bins which are designed for coöperation.

A scale *s* is preferably disposed below the discharge end of the pipe section 15 and has a platform P to receive the sack S which is designed to receive the article or commodity to be distributed, but obviously this scale is not necessarily used and forms no part of the invention, as the sack S may be first filled with the material to be dispensed and then weighed on a scale at some other point, it being only used here for convenience.

In the use of this improved storage and distributing cabinet, the respective bins 1 are first filled with the commodities designed to be contained therein, such as coffee, tea, peas, beans, and the like, and the covers 5 thereof are then closed to protect the contents of the bins, it being of course understood that the valves or cut-offs 21 of the respective pipes 8 which lead from the bins have all been closed before the bins are filled. When the supplies are placed in the bins they will flow down into the pipes 8 and rest on the valve disks 21 ready to be discharged on the withdrawal of said valves. When it is desired to remove a portion of the contents of one of the bins, a bag S of any suitable or desired size according to the quantity to be dispensed, is placed on the platform P of the scale *s*, and the pipe section 15 is adjusted to position the lower end or mouth thereof in the top of the bag and is held in adjusted position by the engagement of its pin 14 with one of the notches of the pipe 15, in the manner above described. The valve 21 in the pipe containing the material to be dispensed is then opened by grasping the knob 23 and exerting an outward pull thereon, thereby causing the disk 21 to move out through the opening 29 in the tube onto the supporting plate 24 arranged outside said opening, it of course being understood that the valve may be wholly or only partially withdrawn, according to the rapidity with which it is desired to fill the sack, and when the desired amount has been discharged into the sack it will be indicated on the dial of the scale *s*, and the valve 21 is then moved quickly inward for cutting off the supply. Should a greater quantity have been discharged than it is desired to dispense, the surplus amount may be placed in the drawer 31 corresponding to the bin containing the article being dispensed, and when the next dispensing of said article occurs, the contents of this overflow tray or drawer 31 are first deposited in the sack S before the valve of the pipe is opened to distribute more.

I claim:—

1. A dispensing chamber for a distributing apparatus comprising a substantially cylindrical drum disposed on one side and having a plurality of inlets arranged around the upper portion of its periphery and a discharge spout opening through the side of the drum opposite to that into which the inlets open, the side walls of the drum being curved inwardly at the junction with the discharge spout to present convexed inner faces at this point to facilitate the discharge of the contents of the drum, and peripherally spaced baffle plates depending from the inner face of the inlet side of the drum and curved inwardly from their fixed toward their free edges, the convexed faces of said plates being arranged opposite each other and their free ends disposed over the discharge spout.

2. A discharge tube for a dispensing apparatus having a peripheral slot extending transversely around one-half thereof, a laterally extending guiding and supporting plate mounted on said tube around the lower wall of said slot, said plate having upstanding side flanges provided with inturned lips, said flanges converging toward their front ends with their terminals spaced apart, said plate also having rearwardly extending side arms projecting into said tube through said slot adjacent the opposite ends of the slot and forming oppositely disposed supports within said tube, the free ends of said arms extending rearwardly beyond the ends of the slot and engaging the opposed

side walls of the tube at the rear of the ends of the slot and leaving a closed rear wall unobstructed on its inner face, a cut-off valve slidable transversely in said tube through said slot and traveling and guided therein on said arms with its perimeter closely engaging the wall of said tube beyond said arms when in closed position, the inward closing movement of said valve serving to eject the material from said arms and discharge it into the tube and insure the tight closing of the valve against the rear wall of the tube.

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

JESSE G. WATTS.

Witnesses:
C. A. BYRN,
R. E. JOHNSTON.

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