W. G. BURNS.

BAGGING PIPE.

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1,205,431.

Patented Nov. 21, 1916

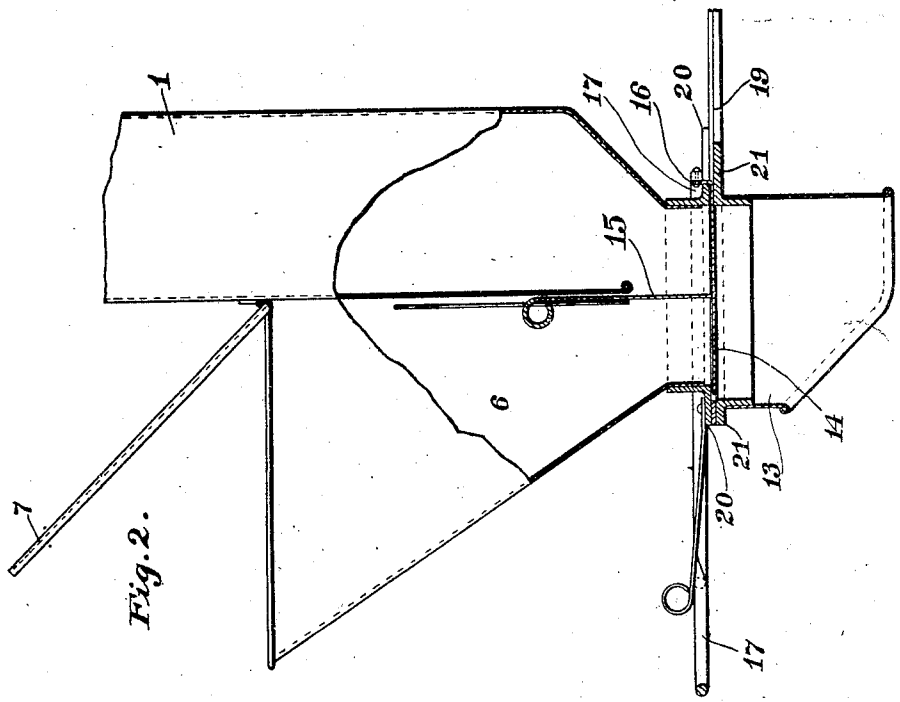


Fig. 2.

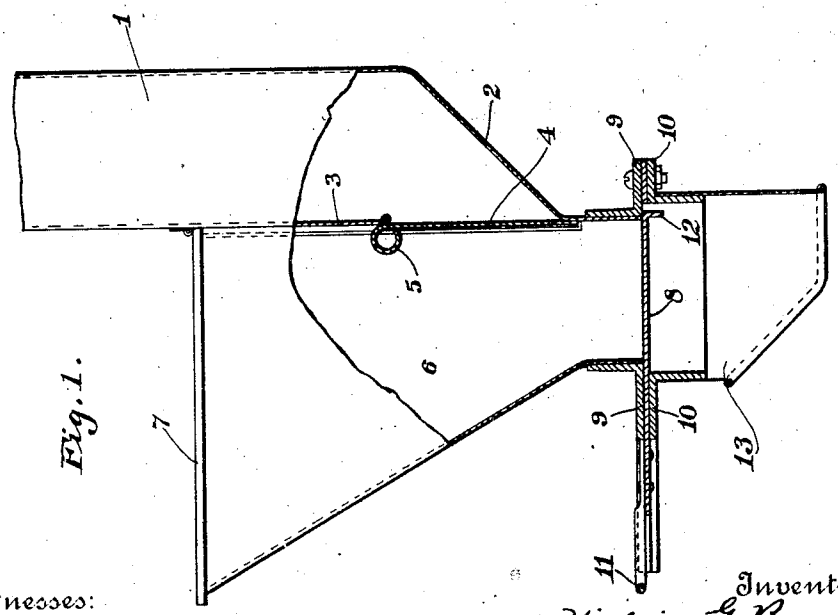


Fig. 1.

Witnesses:
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Inventor
William G. Burns,
By his Attorneys
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UNITED STATES PATENT OFFICE.

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BAGGING-PIPE.

1,205,431. Specification of Letters Patent. Patented Nov. 21, 1916.

Application filed May 6, 1915. Serial No. 26,439.

To all whom it may concern:

Be it known that I, WILLIAM G. BURNS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Bagging-Pipes, of which the following is a full, clear, and exact specification.

This invention relates to bagging pipes, which are used for filling bags by gravity from a large supply.

The invention has particular reference to an apparatus in which the rate of flow from the main supply can be varied according to the nature of the material, such as coffee, cereals, sugar, and the like, in combination with a return pocket into which any excess from the bags may be returned and discharged into the next bag.

Apparatus of this character is used, for example, in large grocery houses, where the bags are first filled and then weighed, and it is found more convenient to allow a slight excess to flow into the bag and then remove this by a scoop until the exact weight remains, the bag then being removed and closed up.

This invention provides an apparatus in which the excess removed from the bags can be returned to the main supply in the bin through a small return pocket, and the apparatus is so arranged that the material returned to the bin is discharged into the next bag along with additional material from the main supply. Thereby, accumulation of returned material in the pocket is prevented, and the entire supply is protected from the air, dust, etc., and maintained of uniform quality.

The invention is shown in two forms in the accompanying drawing, in which—

Figure 1 is an elevation partly in section of one form, and Fig. 2 is a similar view of the preferred form.

1 represents the lower end of a bin connected by a pipe to the main supply, which may be on an upper floor. The bottom of the bin is inclined at 2 opposite the lower interior wall 3, the opening 4 being controlled by a slide 5. This slide is adjusted through the return pocket 6 to furnish the desired opening to permit sufficient flow of the material without overflowing the bin. The return pocket 6 is provided with a cover 7, and the lower end is provided with a gate 8 consisting of a slide mounted in suitable guides 9, 10, and having an operating handle 11 and stop shoulder 12. The gate is so arranged that the material in the bottom of the return pocket may be discharged before additional material from the bin 1 can be discharged. This is accomplished in Fig. 1 by reason of having the bin 1 discharge into the pocket 6 above the gate 8, so that the material on the gate 8 will fall through into the bag discharge pipe 13 faster than additional material passes through the opening 4 from the main supply.

In Fig. 2, the bottom of the bin 1 and the bottom of the return pocket 6 are both controlled by the gate 14, and are separated by the slide 15, which corresponds to the slide 5. In this form, the gate 14 opens by moving to the right, so that any material in the pocket will discharge into the bag through pipe 13 before the main body of material in the bin 1 can be discharged. In this form, the gate 14 is provided with the stop projection 16 to which are attached on opposite sides the U-shaped handle 17, 18 being a spring to engage the handle 17 and hold it in position. The gate 14 slides on guides 19 between plates 20, 21, in a manner similar to the gate 8.

In both forms of the invention it will be observed that the main supply can be cut off at any time by closing the slides 5 or 15, thus providing a simple gate controlled bin. Also, different materials may be mixed as they are filled into bags by feeding one material through the pocket 6 and the other through the bin 1 and controlling their proportions by adjustment of the slides 5 or 15. This apparatus is also advantageous for obtaining samples, which, after examination can be thrown back into the return pocket. Also, the return pocket, with bottom gate can be applied to existing bins or pipes, thus doing away with small receptacles for receiving excess material or returned samples. Such receptacles are objectionable because unsanitary and because they have to be carried up to the main supply on the floor above to be emptied.

Various modifications and changes may be made in the details and arrangements of the various parts without departing from the scope of the appended claims.

Having thus described my invention, I

declare that what I claim as new and desire to secure by Letters Patent, is:—

1. The combination with a bin, of a return pocket therefor comprising a receptacle with surrounding walls and a downwardly opening outlet common to said bin and said pocket, and a gate controlling said pocket and said bin and positively controlling the discharge of material from both said pocket and said bin during a single movement.

2. The combination with a bin, of a return pocket opening from the bottom thereof and comprising a receptacle with surrounding walls extending above the opening from said bin, a gate opening the bottom of said pocket and discharging material from said pocket while material is in said bin, and means controlling the flow from said bin to said gate.

3. The combination with a bin, of a return pocket therefor comprising a receptacle with surrounding and upwardly extending walls adapted to receive and retain material from above, a common outlet for said pocket and said bin, a gate for controlling the flow from said bin to said outlet, and a second gate independent of said first gate for positively controlling both said pocket and said bin through said outlet during a single movement.

4. The combination with a bin, of a return pocket therefor, of a downwardly extending bagging pipe communicating directly with both said pocket and said bin, and a gate movable across said pipe and discharging material from said pocket in advance of the material from said bin.

5. The combination with a bin, of a return pocket therefor, a common downwardly opening bagging pipe discharging material from both said pocket and said bin, a gate sliding across the bottoms of both said pocket and said bin and opening to discharge material from said pocket and said bin in predetermined succession.

6. The combination with a chute, of a bin at the lower end thereof, a return pocket adjacent the bin, a bagging pipe forming an outlet from both said pocket and said bin, a vertically movable gate for controlling the flow from said chute to said pipe, and a horizontally movable gate for controlling the flow to said pipe from both the pocket and the bin.

7. In a bagging pipe, the combination with a bin having an outlet, of a return pocket having an outlet alongside of the outlet of said bin, and a gate sliding across both of said outlets to control the discharge from said bin and said pocket.

8. In a bagging pipe, the combination with a bin having an outlet, of a return pocket having an outlet alongside of the outlet of said bin, an adjustable partition between said bin and said pocket, and a gate sliding across both of said outlets to control the discharge from said bin and said pocket.

9. The combination with a bin and a return pocket opening therefrom, of a main outlet gate for discharging both the bin and the return pocket at one movement, and an auxiliary adjustable partition controlling the rate discharge of the bin.

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

WILLIAM G. BURNS.

Witnesses:
CLAUDEA PALLISTER,
WILLIAM J. DOYLE.