

(No Model.)

H. D. STREATOR.
STORE BIN FOR SUGAR.

No. 458,643.

Patented Sept. 1, 1891.

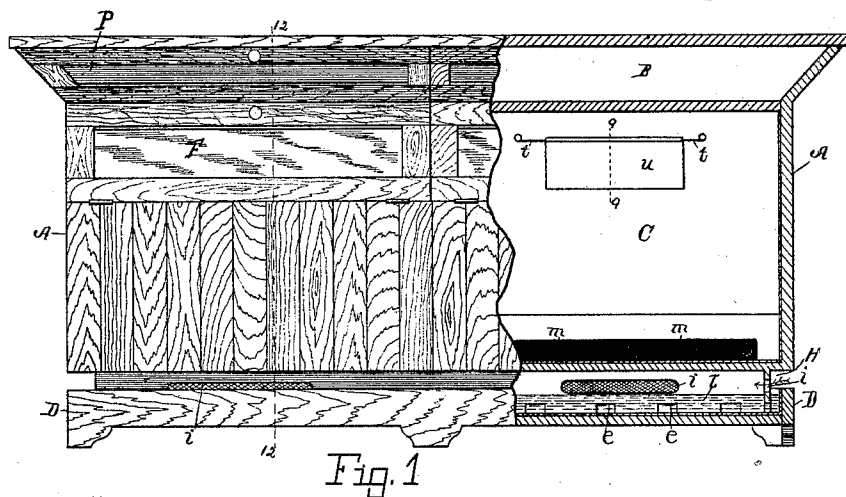


Fig. 1

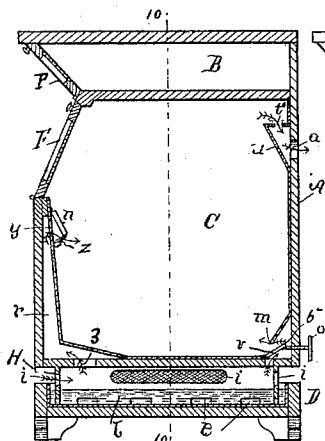


Fig. 2

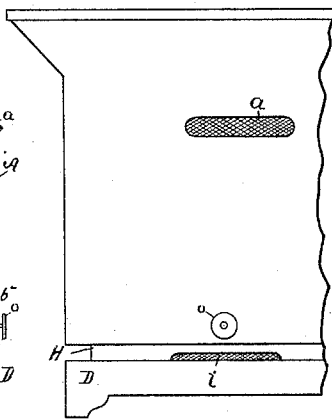


Fig. 3

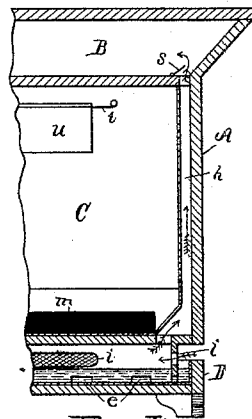


Fig. 4

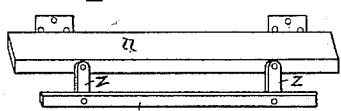


Fig. 5

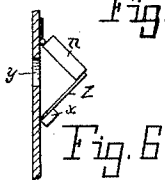


Fig. 6

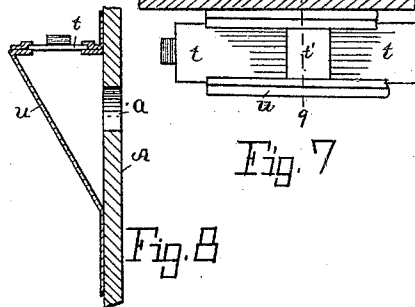


Fig. 7

Fig. 8

Witnesses:

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UNITED STATES PATENT OFFICE

HENRY D. STREATOR, OF GALESBURG, MICHIGAN.

STORE-BIN FOR SUGAR.

SPECIFICATION forming part of Letters Patent No. 458,643, dated September 1, 1891.

Application filed August 18, 1890. Serial No. 362,359. (No model.)

To all whom it may concern:

Be it known that I, HENRY D. STREATOR, a citizen of the United States, residing at Galesburg, county of Kalamazoo, State of Michigan, have invented a new and useful Store-Bin for Sugar, &c., of which the following is a specification.

One of the objects of this invention is to construct a combined sugar-bin and counter for use by grocers.

Another object consists in the peculiar construction and arrangement of parts, whereby the sugar is kept in a moist condition, thereby preventing its drying up and caking, as it does in the ordinary barrels in which it is kept.

Another object consists in a peculiar feature of construction in my combined sugar-bin and counter, whereby the wrapping-paper is kept moist.

Other objects will appear in the following description and claims, one of which pertains to the peculiar construction of a valve which permits the moist air when properly adjusted to enter the sugar-bin.

In the drawings forming a part of this specification, Figure 1 is a front elevation, with parts broken away, looking against Fig. 2 from a point at the left. Fig. 2 is a section on line 12 12 in Fig. 1, looking from a point at the right. Fig. 3 is a broken rear elevation looking from a point at the right of Fig. 2. Fig. 4 is a broken elevation of the same at the right-hand end of Fig. 1 with certain modifications added, below described, and taken on the sectional line 10 10 in Fig. 2, looking from a point at the left. Fig. 5 is an enlarged perspective view of lettered details from Fig. 2. Fig. 6 shows enlarged lettered details from Fig. 2. Fig. 7 is an enlarged plan view of lettered details in Figs. 1 and 2 and a plan view also of Fig. 8, and Fig. 8 is a sectional elevation on line 9 9 in Figs. 1 and 7.

Referring to the lettered parts of the drawings, A is the sugar-bin, having as many compartments C as desirable for containing the different grades of sugar, said compartments being provided with a door F, conveniently arranged in the upper front inclosure of the compartments C. The sugar-bin A has a contracted base H, sitting in a water-tray D, leaving a space between the walls of the con-

tracted base and above the upper edge of the walls of said water-tray, as shown in Figs. 1, 2, 3, and 4. The walls of the contracted base H of the bin A have a series of openings *e* at the lower side, so that the water in the tray D will pass through the openings *e* and thus be beneath the sugar-bin. Through the walls of the contracted base are openings *i*, for the purpose of admitting air over the water and beneath the bin, as shown in Figs. 1, 2, and 4. These openings are preferably closed by wire or cloth screens, as illustrated in the drawings, so as to admit the air and exclude insects and foreign substances.

Referring to Fig. 2, it will be noticed that there is a passage *r* between the exterior and interior walls of the bin leading from the water-tray upward and through opening *y* into sugar-compartments C. These passages may be in separated series, or there may be a continuous passage from one end of the bin to the other with openings *y* leading into the different compartments C. The object of this is to allow the air which passes through the opening *i*, as indicated by the arrow, (more especially referring to Fig. 2,) over the water, where it of course allows moisture, to pass up through openings 3 through the bottom of the bin in the passage *r* and on up through the openings *y*.

The shaded part J in the tray D in Figs. 1 and 2 is designed to indicate the water which the tray contains.

At *a* is shown a ventilating-opening in the back wall of the bin A, and this opening is preferably closed by a wire or cloth screening, as indicated in Fig. 3.

By the means thus far described, whereby air containing moisture is admitted into the compartments C, which contain the sugar, and allowed to pass out through the ventilating-apertures *a*, the sugar is kept in a moist and desirable condition, thus preventing its drying up and caking, and very nearly, if not quite, assures to the merchant that the amount in weight which he purchases will correspond to the amount in weight which he retails to the consumer.

It is desirable to control the degree of moist air which enters the sugar-compartments C through the openings *y*. Any suitable means may be employed for this purpose. In Figs.

2, 5, and 6 I have shown a very convenient valve for the purpose. It consists of a lid *n*, hinged to the inner wall of the sugar-compartment over the openings *y*, so that when it rests against the wall of the compartment C it will close said openings.

At X is shown a bar which is pivotally attached to the lower edge of the lid *n* by straps Z Z, as shown in Figs. 2, 5, and 6. I term this the "valve-rest," and when in the position shown in said figures it holds the valve raised, as in Figs. 2 and 6, so as to leave the openings *y* unclosed. By swinging the bar X endwise in one direction or the other until said bar registers with the lower edge of the lid *n* of course it will no longer constitute a rest and the valve will drop down and close the openings *y*. A valve of this kind shields the openings *y*, whether closed or open, and prevents the sugar from entering the same. It is desirable that the ventilating-openings *a* shall be also shielded, and this is effected by the inwardly-extending offset *u* of the rear wall or lining of the compartments C, as in Figs. 2 and 8. It is also desirable that the degree of ventilation shall be controlled, and this is effected by making an opening *t'* through the upper inclosure of said offset and closing the same with sliding doors *t*, as shown in Figs. 7 and 8. By this means the opening *t'* can be made smaller or larger, according to the degree of ventilation desired. In some instances it may be an advantage to admit moist air up through the base of the sugar-compartments, and thus not depend wholly for the desired effect upon the moist air which passes through the openings *y*. In Fig. 2 I have shown an opening *v m* through the lower wall of the compartment C at the rear side, which communicates with the water-tray and the sugar-compartment, as indicated by the arrows in said figure. By this means the moist air will pass up through the sugar from below.

At 5 is a hinged valve, and at O is a thumb-screw, upon the inner end of which the edge of the valve rests. By screwing this thumb-screw in the air-passage can be partially or entirely closed, according to the effect desired. Beneath the upper surface of the counter is a space B, which may be left open at the front or closed by doors P. The design is to keep the paper which is used for wrapping up the sugar in this space.

It is desirable that the wrapping-paper shall not become dry and brittle, as it will do if kept in a dry place. To obviate this difficulty, I have provided a passage communicating with the water-tray and the paper-space, which the modification in Fig. 4 will serve to illustrate at *h*. By this means moist air passes

from the water-tray into the paper-space and keeps the paper in a moist condition, which has been found very desirable by grocers. The passage *h* may be provided with a valve, as at S, so as to close said passage in case the paper should become too moist. There may be as many air-passages employed as desirable, and they may be located in any desired place.

I do not confine myself in this invention to a tray provided with a counter, nor with the paper-space, nor with the air-passage *h*, leading to said space, for while these features are useful it will appear obvious that the main feature of the invention consists in the construction by which I am enabled to keep the sugar in a moist condition, as specified.

While I have described the sugar-bin as sitting in a water-tray, it may form an integral part of the water-tray or be attached thereto; but ordinarily I deem it the most desirable that it shall detachably sit therein.

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

1. The combination of the water-tray, a bin having a contracted base smaller than the interior of said tray and deeper than the depth thereof, and having air-openings leading through the side walls of said contracted base, said bin having openings through the bottom into the interior of said contracted base, and air-passages leading from said openings into the upper part of the bin, substantially as set forth.

2. The combination of a water-tray and a bin or compartment sitting in said tray, said bin being provided with a passage or passages communicating with said tray and its upper portion through an opening or openings, a valve consisting of a hinged lid, and the valve-rest consisting of the bar pivotally attached to said lid by the bars, substantially as set forth.

3. The combination of a water-tray, a bin having a contracted base sitting in said tray, provided with air-passages through said contracted base, said tray having openings communicating with the interior of the bin from said tray, and said bin being provided with a ventilating opening or openings provided with adjustable doors to regulate the size thereof, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in presence of two witnesses.

HENRY D. STREATOR.

Witnesses:

CHARLES C. JENNINGS,
ANTHONY G. TAYLOR.