

W. HEYSER.
FEED REGULATOR.

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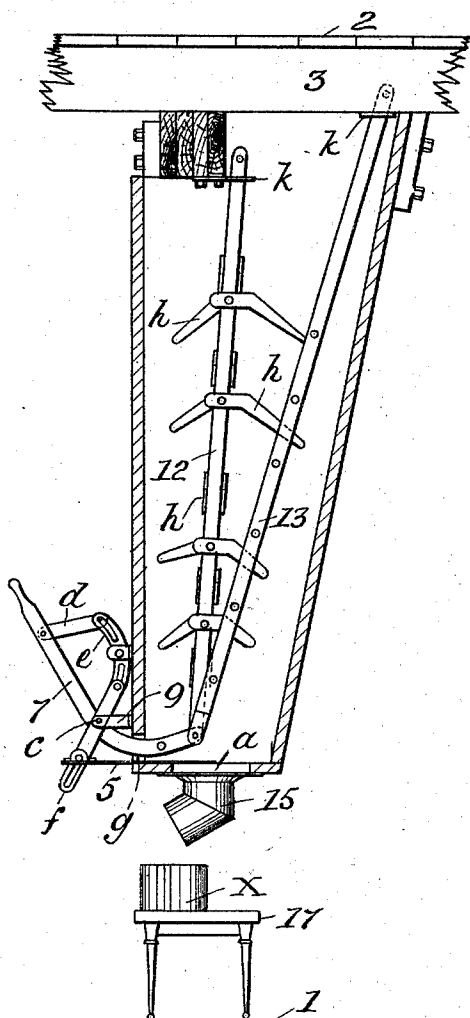


Fig. 1.

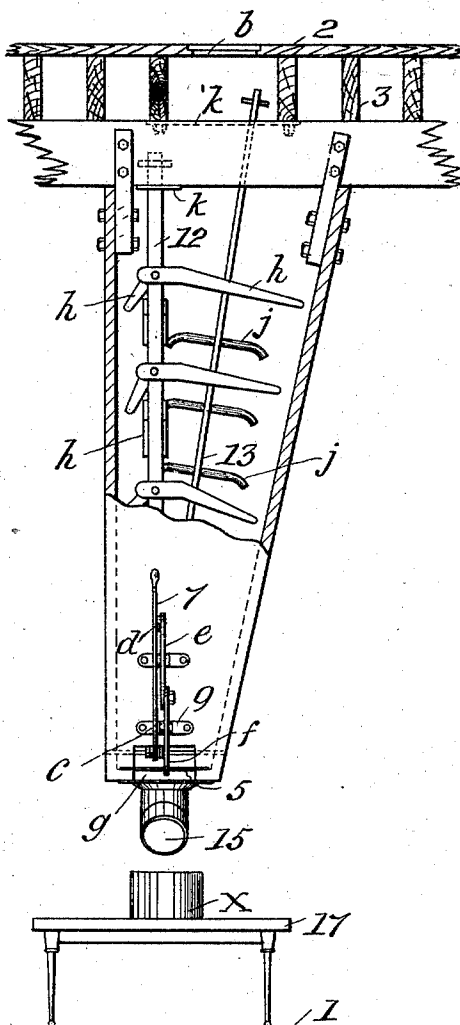


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM HEYSER, OF BALTIMORE, MARYLAND.

FEED-REGULATOR.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM HEYSER, of the city of Baltimore and State of Maryland, have invented certain Improvements in
5 Feed-Regulators, of which the following is a specification.

This invention is for the purpose of effecting the rapid and regular feeding of crushed ice into receptacles, and particularly the
10 spaces between vessels containing perishable articles such for instance as oysters and fish, and the outer packing cases, as will hereinafter fully appear.

In the further description of the said invention which follows, reference is made to the accompanying drawing forming a part
15 hereof and in which,—

Figure 1 is a partly sectional side elevation of the improved apparatus, and Fig. 2
20 a partly sectional front view of the same.

Referring now to the drawing, 1 is the lower floor of a building upon which the packing of the ice receptacles takes place, and 2 an upper floor upon which crushed ice
25 in bulk is dumped in order that it can be shoveled into a bin the construction of which will now be described. The said bin consists of a box of preferably rectangular cross-section and of downwardly tapered form in
30 order that the crushed ice will be guided to the discharge opening *a* at the bottom of the box. The bin 4 is pendent from the upper floor 2 and secured in any suitable manner to the joists 3 thereof.

35 The crushed ice is introduced into the bin through a hatch *b* which is shown as uncovered in Fig. 2, and is discharged by withdrawing a gate 5 from over the opening *a* before referred to, by means of the hand lever 7 which is pivoted at *c* to a bracket 9 extending from the side of the bin, and connected by the links *d*, *e* and *f* to the said
40 gate.

Crushed ice when tightly packed in a receptacle such as the bin above described, does not readily fall therein by gravity, and in opening the gate a discharge may or may not take place, and should it take place there is no certainty that it will be uniform or
50 constant while the gate is open. It is therefore necessary that the contained ice should be vertically shaken, and according to the present invention the shaking of the ice takes place simultaneously with the opening
55 and closing of the discharge gate.

12 and 13 are bars the lower ends of

which are brought together and pivoted to the arm of the hand lever 7 which is curved and extends through a slot *g* in the wall of the box to a point about the center of the
60 discharge opening *a*.

The bar 12 which is nearly vertical and directly over the discharge opening *a*, is provided with radially extending and downwardly inclined branches *h*, and when
65 it is moved up or down, in the closing and opening of the gate, has the effect of raking down the crushed ice and facilitating its intermittent delivery to a vessel underneath the bin. The other bar 13 is provided with
70 rakers *j* which penetrate the mass of crushed ice where not fully acted upon by the bar 12 and its branches, and as it has a motion in common with the bar 12, the entire body of ice is stirred by the movement of the
75 hand lever. Both of the bars 12 and 13 are suitably guided at their upper ends by means of slotted plates *k* through which they pass.

15 is a delivery spout to conduct the discharged ice to the receptacle X beneath and which is shown as standing on a bench 17.

A receptacle being in a proper position on the bench and ready to receive a charge of crushed ice, the attendant rapidly vibrates
85 the hand lever which alternately opens and closes the discharge gate, and at the same time so agitates the body of ice in the box that it is discharged freely each time the gate is opened.

I claim as my invention:—

In a feed regulator, a bin having a discharge opening, a hand lever pivoted to the bin with one of its ends extending into the same, a system of bars which are pivoted to the inner end of the hand lever and extend
95 upwardly within the bin, and raking devices carried by the said bars, combined with a gate to open and close the discharge opening in the bin, and suitable links which
100 unite the hand lever with the gate, the whole being arranged so that in the opening and closing of the gate through the medium of the hand lever and its connecting links, the said bars carrying the raking devices
105 are given an up-and-down movement, substantially as, and for the purpose specified.

WILLIAM HEYSER.

Witnesses:

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