J. M. BEAN.

Case for Can.

No. 213,275. Patented Mar. 18, 1879.

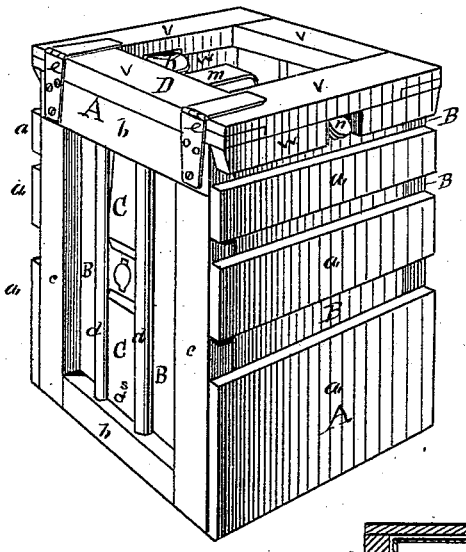

Fig. 1.

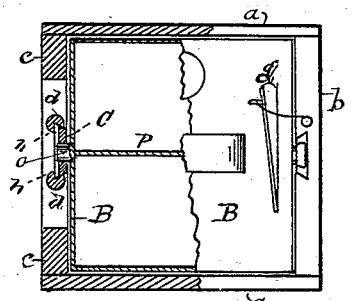

Fig. 4.

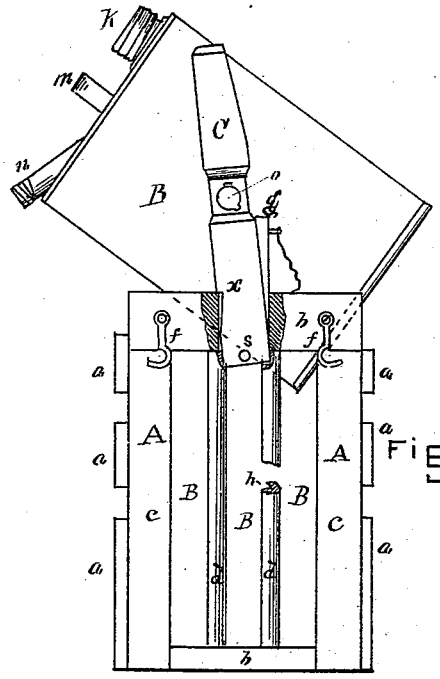

Fig 2

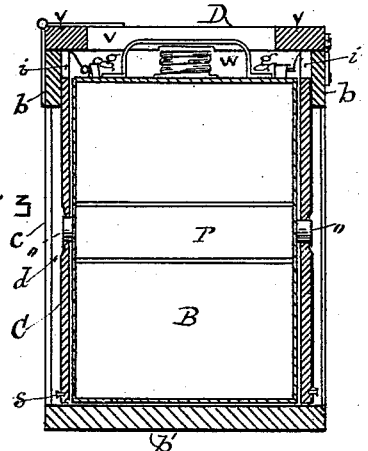

Fig 3

WITNESSES

J. A. Richmond

L. C. Littlefield

INVENTOR

James M. Bean.

J. L. Newton

attorney

UNITED STATES PATENT OFFICE.

JAMES M. BEAN, OF WATERTOWN, MASSACHUSETTS.

IMPROVEMENT IN CASES FOR CANS.

Specification forming part of Letters Patent No. **213,275**, dated March 18, 1879; application filed January 4, 1879.

To all whom it may concern:

Be it known that I, JAMES M. BEAN, of Watertown, in the county of Middlesex and State of Massachusetts, have invented an Improved Case for Cans and other Vessels and an Improved Can, of which the following is a specification:

The invention is a case or box for cans and other vessels which need protection while being transported, and rests or supports for the vessels while being discharged of their contents, and improvements in the can connected therewith. Said case is made open, like a crate, at its top and sides, and has a hinged cover, which, when closed, rests upon a part of the can, and thereby keeps it from being moved. The can is of ordinary form, with trunnions upon two of its sides, upon each of which is fastened a sliding support, which moves with the can when raised or lowered within the case; and that others may more clearly understand its structure and use, I will proceed to explain the same in connection with the accompanying drawings, which are made a part of this specification.

Figure 1 is a perspective view of the case and can when the case is closed for transportation, or is not in use. Fig. 2 is a perspective view of the same when the can is raised upon the case and tilted slightly, as when being discharged of its contents, showing the sliding trunnion-supports with a square shoulder cut on the front side of said support, and cut out at an angle, so that by inclining forward these shoulders rest upon the cross-strips through which these supports run, and, with the wedge inserted, hold the can or vessel in position for discharging its contents. Fig. 3 is a vertical section of the case, showing the cap of the inletting-tube, the handle, the trunnions, the sliding supports or bearings fastened to the trunnions, and, particularly, a brace within the can between the trunnions. Fig. 4 is partly a top view of the case open and partly a horizontal section of the case and can, showing the trunnion sliding supports or bearings and grooves for said supports, and grooved upright posts for said sliding supports, and a wedge to be inserted into one side of the groove in which the trunnion supports or bearings run. This wedge holds firmly the supports when the can or vessel is tilted to discharge its contents.

The letter A represents the whole case; B, the can; C C, the trunnion supports or bearings; D, the cover; *a a* and *b b*, horizontal strips; *c c*, &c., upright strips, and *b'* the bottom of the case; *d d*, upright posts between the cross-strips *b b* and the bottom *b'*; *e e*, hinges; *f f*, hooks; *g g*, wedges; *h h*, grooves in the upright posts; *i i*, grooves for the trunnion supports or bearings C C; *k*, cap covering the inletting-tube; *m*, handle of can; *n*, the nozzle or outlet of can; *o o*, trunnions; P, a brace within the can; *s*, a screw in bottom of trunnion-supports, and *x* a square shoulder near the bottom of trunnion-supports. Said cover D is composed of four strips of wood, *v v*, and two side strips, *w w*, fastened thereto, and so formed on either side as to shut down over the nozzle and the inletting-orifice and cap, and it may be onto the head of the can, thereby keeping the can from being moved.

This case is not necessarily made open like a crate, but may be made box shape and closed; but an open case made with cross-strips of wood, part of the strips perpendicular and part horizontal, is much stronger and lighter than a case made closed, and is less likely to warp; besides, such case discloses the can or other vessel within the case, and when so disclosed the open case will be handled with more care when being transported than a closed box, the contents of which are unknown. But the chief improvement in this case over all now in use is in the manner in which the can is raised and held in position and by which the contents of the can or vessel are discharged.

All cans of this class heretofore have trunnions resting upon stationary bearings, which are parts of the case; and, in order to raise the can so that its trunnions may rest upon the bearings, the can must be lifted free above the case and turned half-way around, and the case so opened on two of its sides, which may be designated the "front" and the "back" sides, that the can may tilt forward free of the case in discharging its contents; but it will be observed that in my invention I have a sliding support or bearing (see Fig. 2) fastened on over the trunnion *a*, so that when the can is raised the sliding support or bearing goes up

with it, inclining slightly forward, so that, the two supports or bearings being thus raised, the shoulders *x x* in the front of the bearings C C rest upon the cross-strips *b b*, and by the wedges *g g*, inserted into the grooves *i i*, in which said bearings run, are firmly held in position, so that the can may be easily tilted forward to discharge its contents.

It will be observed, too, that these trunnion supports or bearings C C run in grooves formed in the inner side of the strips or cross-pieces *b b* and grooves *h h* in the upright posts *d d* on either side of the case, (see said Fig. 2 and Fig. 4,) and that there is a pin or screw, *s*, one on each sliding support or bearing. This pin *s* prevents the can from being raised free of its case. It is, however, not a necessary part of the invention that these parts *d d* should be grooved; but the sliding supports may run free of the posts *d d*.

When the can is to be raised for discharging its contents, it is lifted till the pins or screws *s s* come underneath the cross-pieces *b b* and the supports are inclined slightly forward, so that the shoulders *x x* rest upon the cross-pieces *b b*, and the wedges are adjusted in the grooves *i i*. It may then be tilted to discharge its contents.

It may be observed, too, that the trunnions are slightly above the center of the sides of the can, and should be a trifle forward from side to side. They should be so placed for the reason that when the can is raised in position to discharge, the gravity of the can will settle backward and raise the can upright, and so be less likely to drip or spill said contents from the can. I have also improved the can by introducing a brace, P, within, extending from side to side, abutting the trunnions. (See Figs. 3 and 4.) The value of this brace will be readily recognized. Without such brace, especially in large cans, the material of which the can is made, unless very stiff and strong, will yield, bend, or warp, and thus by constant use the can will, in consequence, soon become unserviceable. The brace is broad and thin, and placed with its broad side parallel with the perpendicular sides of the can, between the two trunnions.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. An open case or box, A, for cans or other vessels, composed of the open cover D, two or more horizontal strips, *a a*, on opposite sides, and the opposite horizontal strips *b b*, the upright strips *c c c c*, the posts *d d d d*, and the bottom *b'*, all arranged and combined substantially as shown, and for the purpose described.

2. The combination of a case, A, having a cover, D, the movable trunnion-bearings C C, moving in grooves *i i* in the strips *b b*, the wedges *g g*, and the can B, provided with trunnions *o o*, substantially as shown and described.

3. The combination of a case, A, having a cover, D, the movable trunnion-bearings C C, moving in grooves *i i* in the strips *b b*, the wedges *g g*, the can B, provided with trunnions *o o*, and provided with a brace, P, within the can and between the trunnions *o o*, for the purpose shown and described.

JAMES M. BEAN.

Witnesses:
J. L. NEWTON,
E. W. NEWTON.