H. E. MOOMAW.

SHEET METAL BIN AND CORN CRIB.

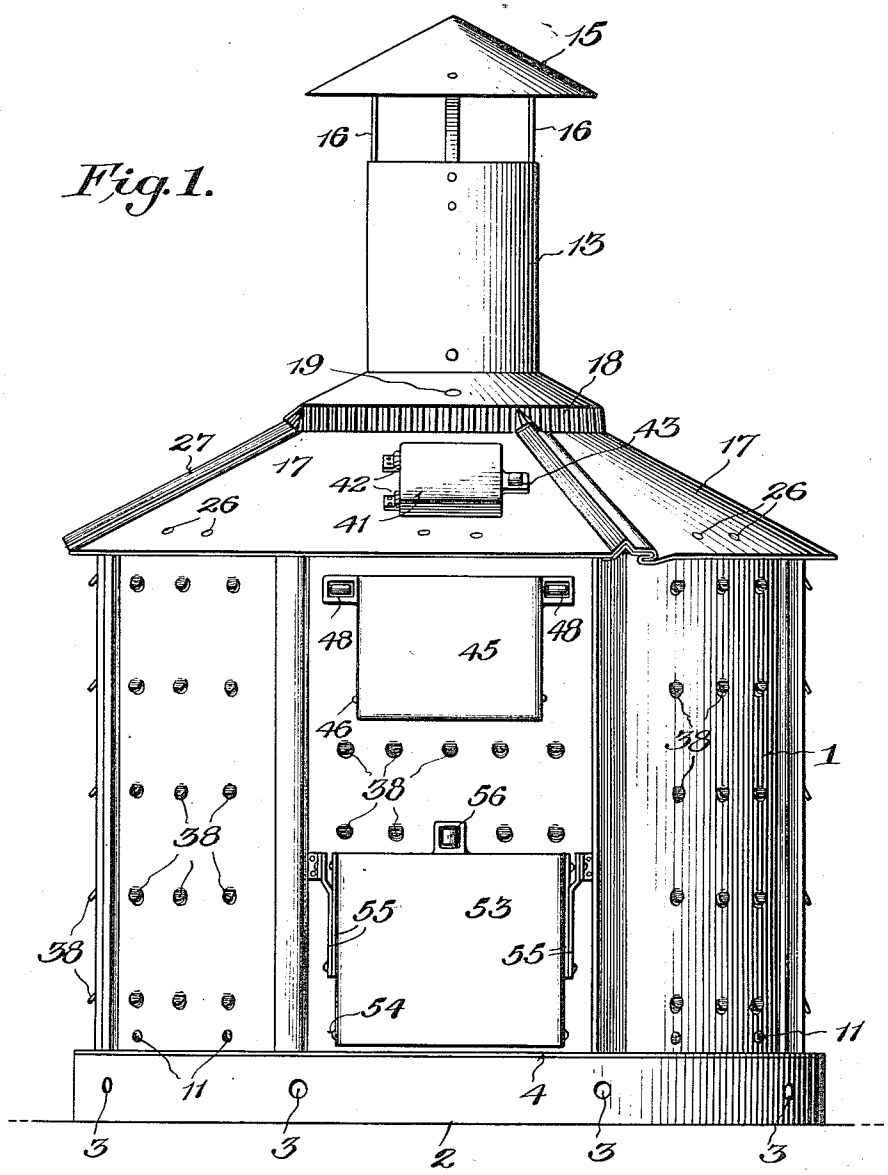
APPLICATION FILED OCT. 22, 1917.

1,267,684.

Patented May 28, 1918.

5 SHEETS—SHEET 1.

Fig. 1.



Witness

Chas. L. Griesbauer

Inventor

Henry E. Moomaw

By Davis & Davis

Attorneys

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5 SHEETS—SHEET 2.

Fig. 2.

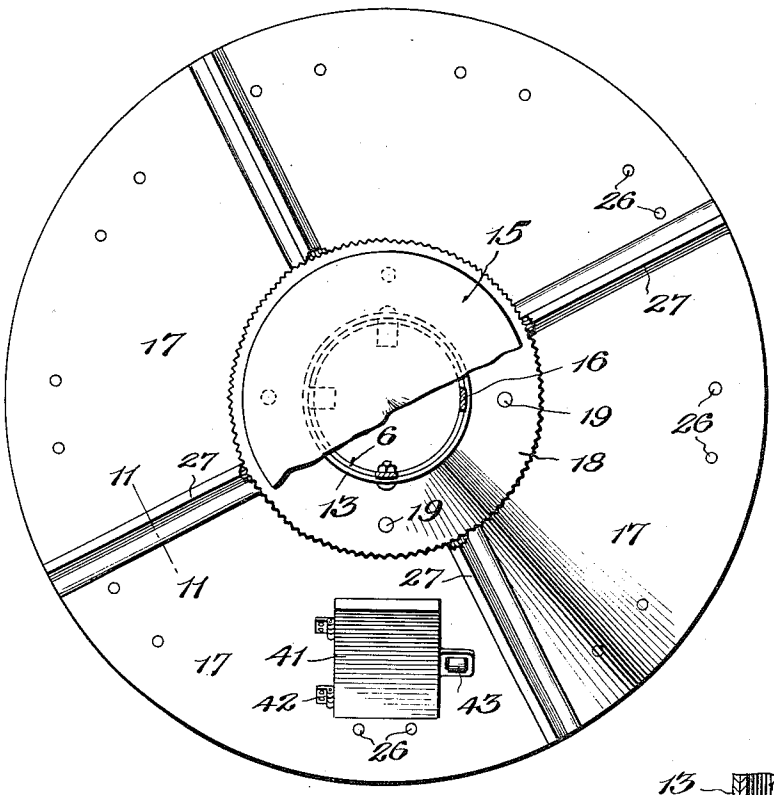


Fig. 11.

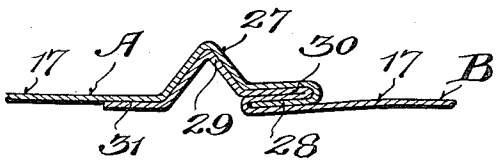
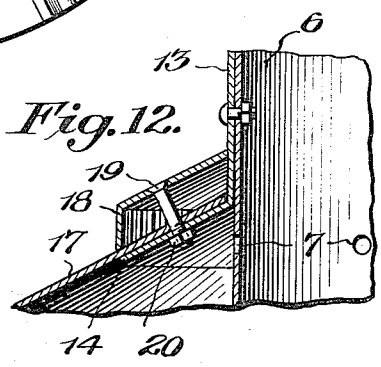


Fig. 12.



Witness

Chas. L. Griesbauer

Inventor

Henry E. Moomaw

By Davis & Davis

Attorneys

H. E. MOOMAW.

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5 SHEETS—SHEET 3.

Fig. 3.

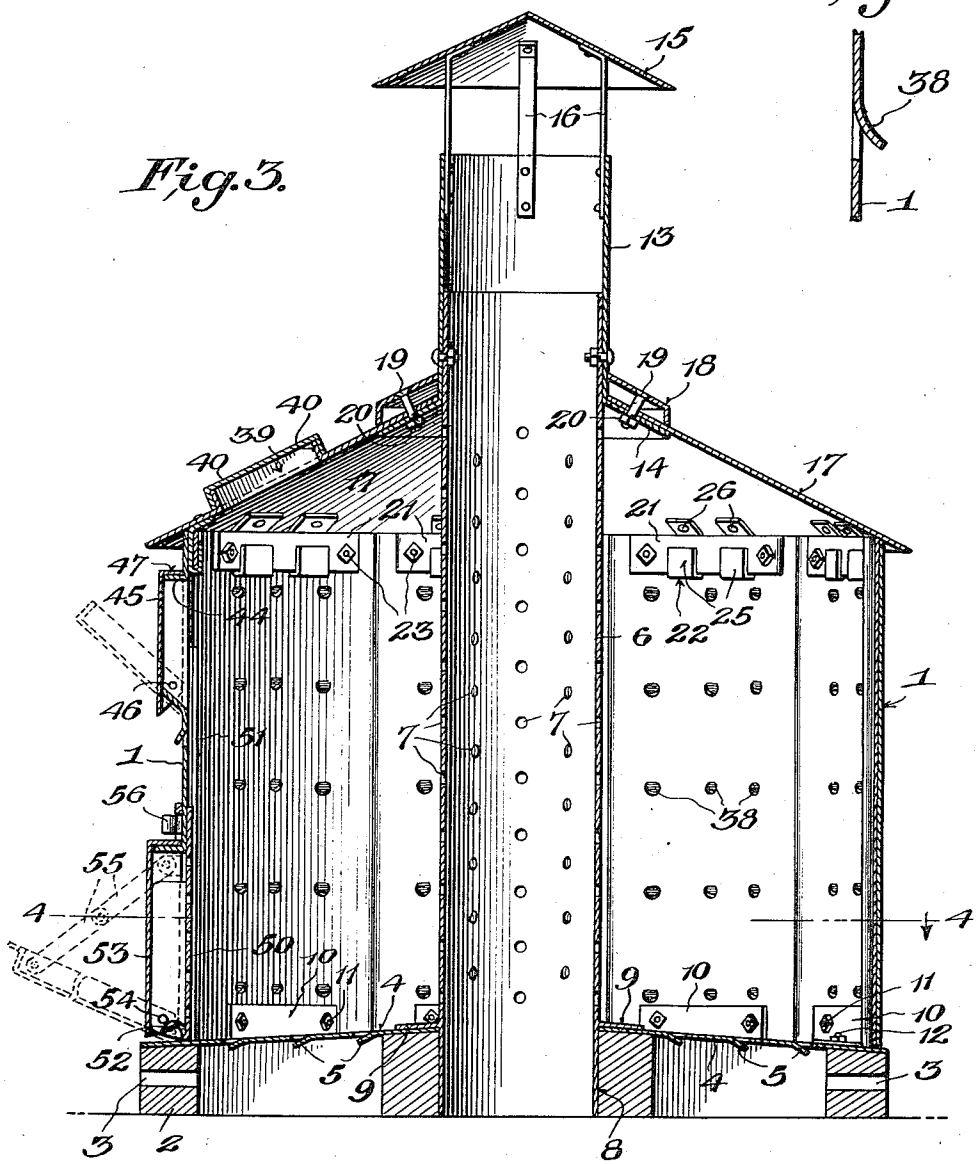


Fig. 13.

Witness

Chas. L. Griesbauer.

Inventor

Henry E. Moomaw

By Davis & Davis

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5 SHEETS—SHEET 4.

Fig. 4.

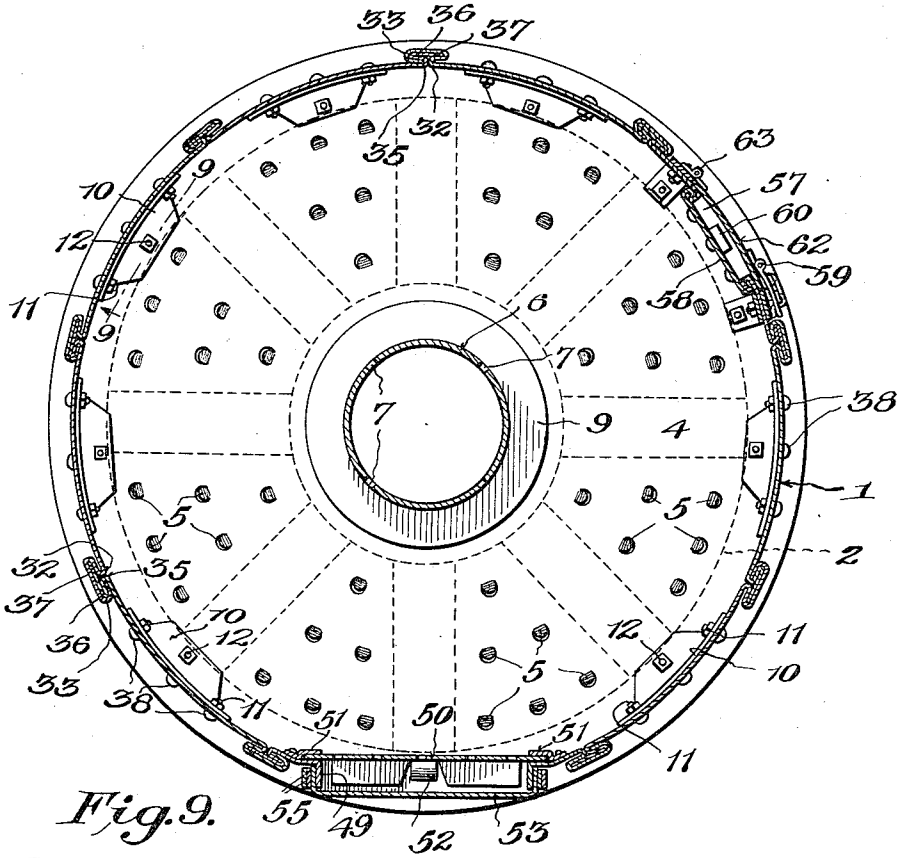


Fig. 9.

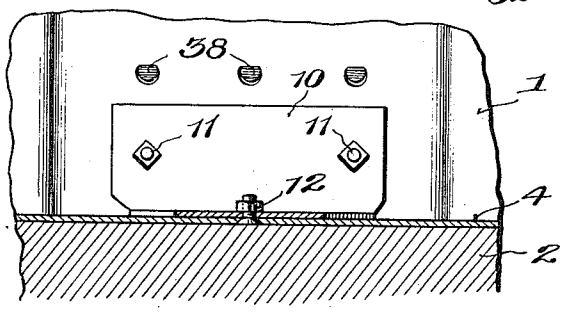
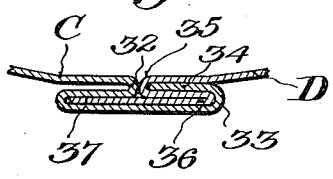


Fig. 10.



Witness

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Inventor

Henry E. Moomaw

By Davis & Davis

Attorneys

H. E. MOOMAW.

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5 SHEETS—SHEET 5.

Fig. 5.

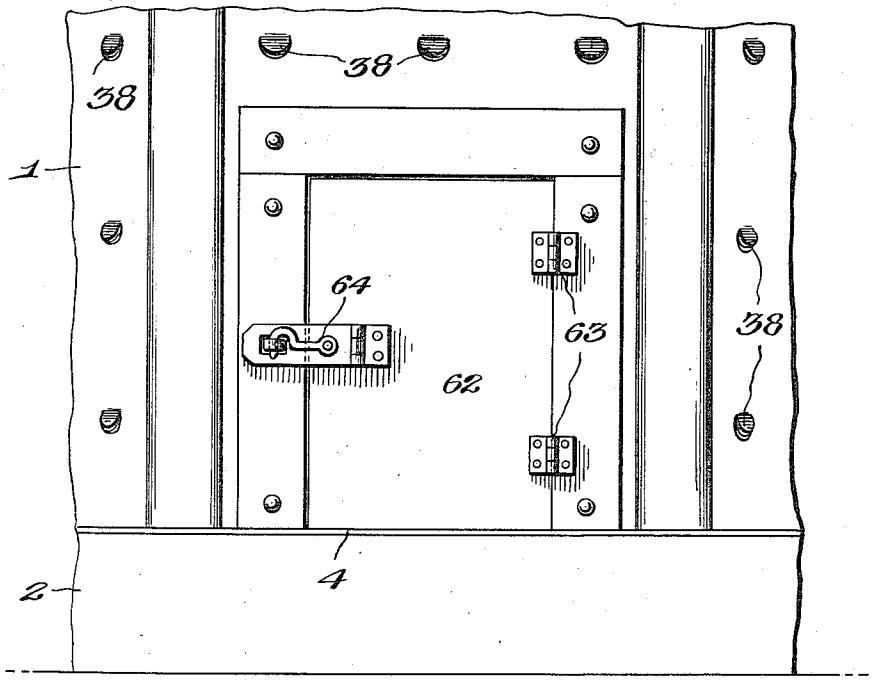


Fig. 6

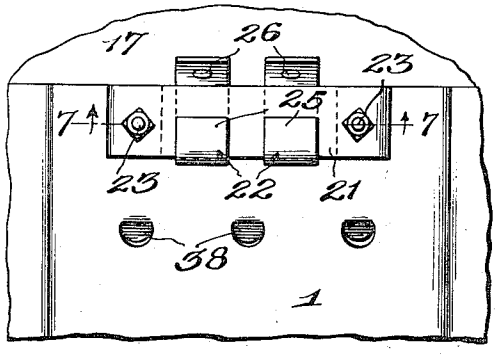


Fig. 7.

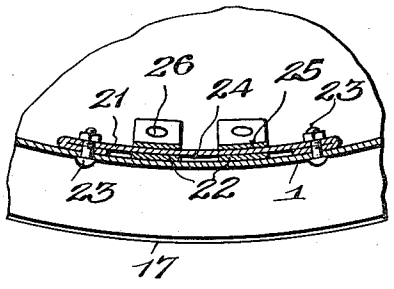
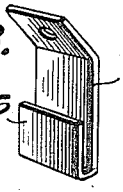


Fig. 8.



Witness

Chas. L. Griesbauer

Inventor

Henry E. Moomaw

By Davis & Davis

Attorneys

UNITED STATES PATENT OFFICE.

HENRY E. MOOMAW, OF SALEM, VIRGINIA, ASSIGNOR TO JOHN E. ANNIS, OF CHATTANOOGA, TENNESSEE.

SHEET-METAL BIN AND CORN-CRIB.

1,267,684. Specification of Letters Patent. **Patented May 28, 1918.**

Application filed October 22, 1917. Serial No. 197,932.

To all whom it may concern:

Be it known that I, HENRY E. MOOMAW, a citizen of the United States of America, and a resident of Salem, county of Roanoke, State of Virginia, have invented certain new and useful Improvements in Sheet-Metal Bins and Corn-Cribs, of which the following is a full and clear specification.

My invention relates to granaries and bins and more particularly to metal corn cribs.

One of the objects of my invention is to produce a corn crib of the kind about to be described in such a manner that free circulation of air may be had throughout the crib, to prevent the contents therein from molding and deteriorating.

Another object is to provide a corn crib that may be easily disassembled for shipping and also equally easily assembled again.

Various other objects will appear hereinafter in the specification and in the drawings, in which—

Figure 1 is a side elevation of my improved corn crib;

Fig. 2 is a top plan view of the same;

Fig. 3 is a central vertical section;

Fig. 4 is a horizontal section taken on line 4—4 of Fig. 3;

Fig. 5 is a detail view of a side portion of the crib showing the entrance door;

Fig. 6 is a detail view of the roof-attaching means;

Fig. 7 is a detail horizontal section taken on line 7—7 of Fig. 6;

Fig. 8 is a perspective view of one of the roof anchor cleats;

Fig. 9 is a detail view of the floor-attaching means;

Fig. 10 is a detail section showing the interlocking means for the wall sections;

Fig. 11 is a similar detail section showing the interlocking means for the roof sections;

Fig. 12 is a fragmentary sectional view of a portion of the roof and central ventilating pipe; and

Fig. 13 is a detail sectional view of a part of the wall.

In the drawings, the numeral 1 represents my improved crib and 2 the base thereof. The base may be made of any suitable material, such as framing timbers providing space for the air to circulate under and through the floor as for a purpose to be hereinafter described. The base may be provided with openings 3 to allow further ventilation.

Suitably secured to the base and inclined downwardly from its center is the floor 4. As stated, the floor is inclined downwardly from its center to its periphery and is provided with perforations or openings 5 arranged so that any moisture in the crib may drain out through these openings.

For securing the walls and floor together, I provide floor-attaching means, shown more clearly in Fig. 9, which consists of an L-shaped anchor or member 10 having one of its sides lying against the wall of the crib and its other side resting upon the floor. Securing means such as bolts 11 and 12, respectively, are provided. From this it will be seen that a stable but simple means is provided for detachably securing the floor to the sides of the crib.

Located centrally of and extending a slight distance above the body of the crib is a cylindrical ventilating tube or member 6 provided with perforations 7 and extending into the base, as shown at 8. The floor is secured to this central member by any suitable means, such, for instance, as an annular collar 9.

Circumferentially secured to the upper end of the central ventilating tube is a second tube or sleeve 13, extending a short distance above the said central tube and being provided at its lower end with a collar 14. A protecting cap or hood 15 is supported above the upper edge of the sleeve 13 by supports 16.

Resting upon and secured to the collar 14 is the roof 17, preferably made in sections. A raised annular protecting collar 18 surrounds the joint between the roof and the sleeve 13 and provides a water-tight connection therefor. The collar 18 is secured to the collar 14 by bolts 19 passing through itself, the roof and the collar 14, respectively, and is provided with a nut 20.

The roof sections are secured to the wall sections by roof-attaching means, shown more clearly in Figs. 6, 7 and 8, which consists of a member or anchor 21 and cleats 22. The anchor member comprises a strip of metal having its ends bent back upon itself and secured to the wall sections by bolts 23. By this construction, a space 24 is provided between the anchor member and the wall

section adapted to receive the body portion of the cleat 22, as clearly illustrated in Figs. 6, 7 and 8. The cleat 22 has a bent-up tongue 25 which is adapted to prevent upward movement of the roof. The other end of the cleat member is fastened to the roof section by means of a rivet 26.

The roof is made in sections to facilitate the handling thereof and in the drawings is shown as being in four sections, but it is obvious that a greater or less number of sections may be used to meet the requirements of various sizes of cribs. The several sections of the roof are interlocked together, as shown clearly in Fig. 11. Each section has provided upon its interlocking edge a male and female joint, respectively, adapted to interlock with the joint of the section next adjacent it; for instance, in Fig. 11 the section A carries the female member of the joint and B the male member of the joint. The section A has near its edge a raised inverted-V-shaped ridge 27 and a bent-under lip portion 28. Upon the section B is a corresponding inverted-V-shaped ridge 29 near the edge thereof and adapted to fit up in the ridge 27 of section A. A fold in the section B provides a tongue 30 adapted to fit in the space formed by the lip 28 of section A, as shown. As will be seen, the ridge 29 is a short distance from the edge of the section, thereby providing a lip 31 adapted to rest under the flat portion of the roof section A.

The wall of the crib is also made in separate sections so as to facilitate transportation, handling and erection. Each sheet metal section, besides being provided with one of the anchoring members 10 at its lower end and also with one of the roof-holding bars or plates 21 at its upper end, has its vertical edges folded longitudinally at 32 to form a vertical channel 33 and its opposite longitudinal edge folded or bent back on itself at 35 to form a vertical longitudinal T-shaped flange 37 which, along one edge 36, is of double thickness. It will be seen that when these sections are interlocked, the tongue-like flange 37 may be slid endwisely into the channel on the adjacent edge of the adjacent sheet, whereby the sections of the wall may be slid downwardly into place and then anchored to the base. In this way, the wall may be progressively constructed, one section being positioned at a time, and, in case a section needs to be removed for repairing or for renewal, it will be a simple matter to remove that section by sliding it out of place vertically after a section or two of the roof have been removed and the proper anchoring devices disconnected from the base.

It will be seen that the channels 33 and the interfitting T-shaped flange 37 fit tightly together and extend the full height of the wall and on the exterior thereof, whereby these interfitting parts serve as stiffening members for the wall and also prevent storm water entering the crib along the joints. It will be seen that no bolts or other fastening devices are necessary to make these joints rigid and practically water-tight. The joints are rendered water-tight because of the circuitous path the water would be required to take in order to pass to the interior of the crib, it being observed that the free edge 34 of the channel 33 will lie between the two-ply part 36 of the flange and the adjacent face of the wall.

The wall sections are also provided with perforations 38, shown in detail in Fig. 13, for the purpose of allowing free ventilation of the interior of the crib. As shown, these perforations are provided by cutting a lip and bending the same outwardly. By this construction, air is admitted to the interior of the crib, but the rain and snow kept out.

At any convenient place on the roof, but preferably near its outer edge, I provide a receiving opening 39 for the contents of the crib. A flange 40 is provided around the edge of the opening and a suitable cover 41 fitting over the flange 40 provides a water-tight joint. The cover is hinged at 42 and is provided at 43 with a keeper adapted to receive a lock (not shown).

At one side of the crib and adjacent the top edge thereof is a second receiving opening 44 for the contents of the crib, closed by a door or cover 45 hinged at 46. This cover is provided with a flange 47 and, when opened as shown in dotted lines in Fig. 3, provides a receiving chute for the contents of the crib. Any suitable locking means may be inserted in the keepers 48.

Directly under the receiving chute door 45 is another opening 49 closed by a sliding door 50 which slides vertically in guides 51 secured to the vertical sides of the opening 49. A handle 52 is provided to facilitate the raising and lowering of the door. A second cover or door 53 is provided, said door being hinged at 54 and being secured at its upper edge by folding links 55 to the wall of the crib. As shown in Fig. 3, when the door 53 is lowered to the extent allowed by the links 55, it provides a shoveling floor, so that when the inner door 50 is raised the contents of the crib will fill the hopper or scoop formed by the door 53 and may be shoveled up and taken away. A keeper 56 is shown to receive a lock (not shown).

At the lower edge of the wall at a place nearly diametrically opposite the opening 49 is still another opening 57 adapted to be used as an entrance to the crib. This entrance is closed by a vertically sliding door 58 sliding in suitable guides 59 formed in the wall of the crib. A handle 60 is provided to raise and lower the door. A second door 62 swung on vertical hinges 63 is provided and

adapted to be fastened shut in any suitable manner, here shown as keeper and hook 64.

From the foregoing, it will be seen that I have provided a crib or bin which is easily assembled and disassembled, capable of thorough ventilation and which at the same time protects the contents from the weather, rats, mice, etc., and which is so constructed as to facilitate economical handling of the contents.

The nature and scope of the invention having been thus indicated and its preferred embodiment having been specifically described, what is claimed as new is:

1. In a structure of the class set forth, a base, a sectional wall, a peaked roof-plate supported on the wall, a ventilating flue extending from the base up through a hole in the roof-plate, a flue extension inclosing the upper end of the flue and provided with an annular apron-like flange 14 at its lower end which lies under the roof-plate, an annular collar 18 bearing upon the roof and also against the exterior of said flue extension, and fastening bolts extending through said collar and said apron-like flange and the intermediate roof-plate.

2. In a structure of the class set forth, a base, a sectional wall supported thereon, a sectional roof supported on the wall, and means for detachably anchoring the roof to the upper edge of the wall, said means embodying a plate 21 fastened to the upper edge of each section and set away from the inner face thereof, and anchoring straps fastened to the roof and extending down between the plate and the adjacent face of the wall and bent upwardly around the under edge of said plate.

3. In a metallic building, a wall consisting of a series of vertical sections connected together by slidable vertical joints at their edges and anchored to the base of the building to hold the sections against relative sliding action, said vertical joints consisting of vertical interlocking flanges and channels, said flanges and channels being formed by folding one end of each section back upon itself to form a double-edge vertical flange having one of its edges of double thickness, and the other edge of the section being folded upon itself to form a vertical double channel in which said double-edged flange has a sliding fit, the free edge of said double channel lying between the wall part of the adjacent seciton and the double-thickness part of said flange.

In testimony whereof I hereunto affix my signature.

HENRY E. MOOMAW.