March 25, 1924.

1,488,264

R. E. MARTIN

CRIB OR THE LIKE

Filed Nov. 10, 1921

Fig. 1

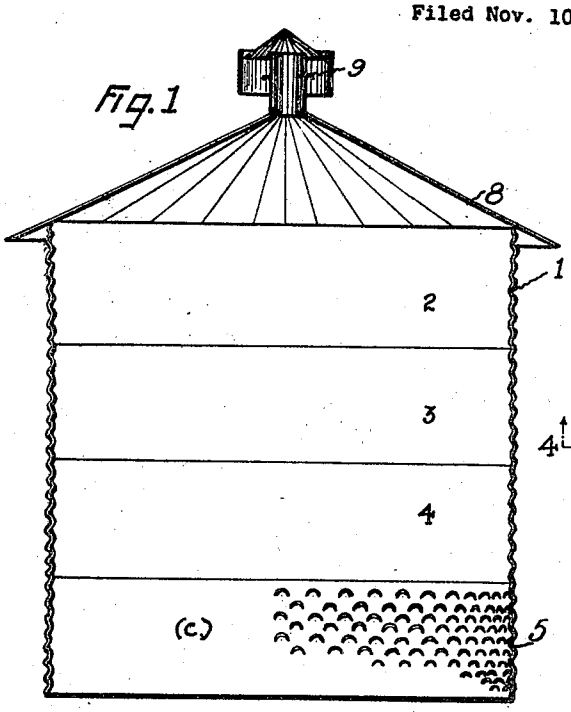


Fig. 2

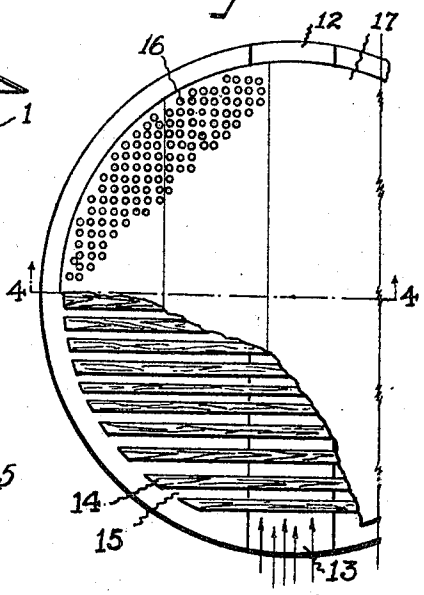


Fig. 3

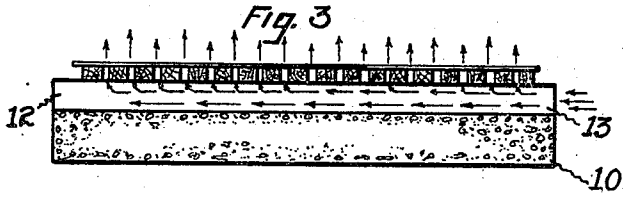


Fig. 4

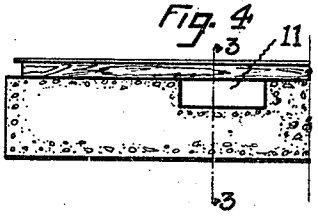


Fig. 5A

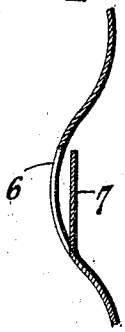


Fig. 5

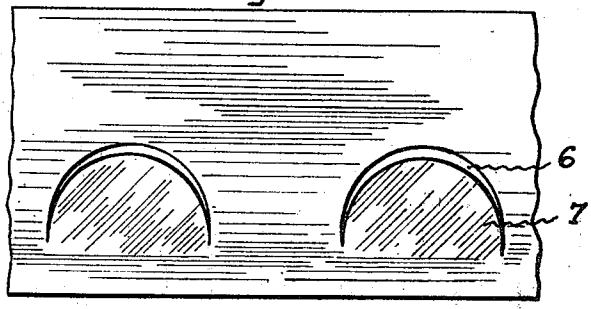


Fig. 6a

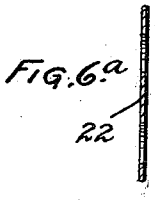
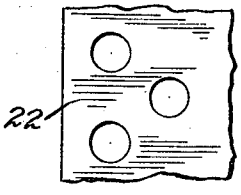


Fig. 6.



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by

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By

Patented Mar. 25, 1924. 1,488,264

UNITED STATES PATENT OFFICE.

ROYAL E. MARTIN, OF MANSFIELD, OHIO.

CRIB OR THE LIKE.

Application filed November 10, 1921. Serial No. 514,270.

To all whom it may concern:

Be it known that I, ROYAL E. MARTIN, citizen of the United States of America, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Cribs or the like, of which the following is a specification.

This invention relates to a crib or the like.

The primary object of the invention consists in providing a crib for the storage of products whereby means are provided for complete and thorough ventilation of the produce stored in the crib.

To carry out the objects of this invention the crib is constructed to induce a draft in and to provide a thorough circulation of air throughout the contents of the crib.

To attain the objects means are provided to permit the air to enter underneath the crib from the outside and also through apertures formed in the lower section of the crib.

The air is conducted to the crib in such a manner as to induce it to constantly flow through the product, permeating the entire contents of the crib from the bottom to the top of the product. The air finally passing out through a ventilator or the like located in center of the roof.

Another object is to afford means for allowing the condensed or heated air to escape from the top of the product and out through the ventilator or the like.

These and other objects are attained by the construction of a crib or the like as shown in the accompanying drawing in which:—

Fig. 1, shows the preferred form of crib with the upper wall portion formed of imperforate corrugated sheet metal and having the lower section of the wall provided with openings for ventilation and lips to cover same.

Fig. 2, is a plan view of Fig. 1 with roof removed, showing the concrete foundation, spacing members and perforated bottom of the crib.

Fig. 3, is a section on the lines 3—3 of Fig. 4.

Fig. 4, is a section on the lines 4—4 of Fig. 2.

Fig. 5, is an enlarged fragmentary section of a corrugated sheet used in construction of the preferred form of crib.

Fig. 5A is a side view in section of Fig. 5.

Fig. 6, is an enlarged view of a fragment of a modified form of sheet metal used in buiding a crib.

Fig. 6A is a side sectional view of Fig. 6.

In the drawings two structures or constructions of cribs designed to carry out the invention are shown.

The preferred form of crib is shown in Figs. 1 to 5A inclusive. In these figures reference numeral 1 represents a crib the wall or body of which is formed of corrugated sheet metal.

The upper sections of the body of the crib are indicated by reference numerals 2—3— and 4 and are imperforate. The lower section 5 of the body of the crib is perforated as shown at 6 and is provided with lips 7 which allows the air to permeate through the contents of the crib and at the same time protects the contents against inclement weather, preventing rain, sleet or snow or the like from entering the crib.

In making the body of the crib of corrugated sheet more strength and rigidity is added to the crib without increasing the gauge of the steel used to build the body of the crib. The usual top 8 is mounted upon the top of the body portion. A syphon or conventional type of ventilator 9 is mounted on the roof and is held in place by any conventional type of fastening means.

The crib is mounted upon a concrete foundation 10. The concrete foundation 10 is provided with an air passageway 11 which extends across the foundation and is preferably open to the air at both ends as shown in Fig. 3 at 12 and 13.

A series of members 14 are arranged in spaced apart relation to each other upon the concrete foundation, so as to, preferably, intersect and cross the passage way 11 at right angles as shown in Fig. 2, to provide air passageways to conduct the air from the passageway 11 into the crib through apertures 16 formed in the bottom 17 of the crib.

The bottom 17 is supported upon the members 14 as shown. The air enters from the ends 12 and 13 of the passageway 11 passing underneath the members 14 and through the spaces 15 between the members 14, thence into the crib through the apertures 16 thereby permitting the air to permeate the entire contents of the crib, the air being induced to flow by natural draft to penetrate through and out at the

top of the contents, thence out to the atmosphere through the ventilator 9. The air also enters the crib through the apertures 6 formed in the lower section 5 of the crib. These apertures extend around the crib in the lower section 5, and assist in constantly permitting air to flow through the contents of the crib to the ventilator thereby maintaining fresh currents of air through the contents of the crib through natural draft continuously.

In Fig. 6 reference numeral 22 indicates an enlarged fragment of the lower section of flat sheet metal used in constructing a modified form of crib.

The air in both cribs is induced to pass through the contents of the crib in a similar manner, for the same purpose.

Attention is called to the fact that in constructing cribs such as shown in the drawings fresh air currents enter the passageway 11 at the ends 12 and 13 and through the spaces between the members 14 to the apertures in the bottom of the crib and through the openings in the lower sections similar to a draft of a stove or the like, the air thereby being forced to constantly and continuously permeate and circulate through the contents of the crib, escaping out through the ventilator at the top of the crib, carrying the heated and condensed air with it from the crib.

It will be observed that by constructing the body of the crib imperforate at its upper portion and perforated at its lower portion that the air will be conducted by natural draft from the lower portion which construction induces constant fresh drafts of air to penetrate through the contents of the crib, thereby preventing the contents of the crib from decaying or spoiling on account of the lack of the constant and continuous flow of fresh air over the contents thereof.

It will be further observed that the air permeates and penetrates the bottom portion of the contents of the crib thoroughly, leaving no unventilated portions of the contents.

The gist of the invention consists in constructing a crib or the like for the storage of grain or the like in which the upper portion of the structure is closed, excluding air and having no openings or apertures in the upper portion except a ventilator, said structure being provided with means of conducting air underneath the crib, thence into the crib, or from apertures provided adjacent to the bottom of the crib or from both sources combined. It is not the intention to confine the present invention to either of the types of crib shown as changes and alterations may be made in the structure without departing or deviating from the spirit of the present invention.

I claim:

In a crib, a base formed with a channel open to the atmosphere, a slatted support arranged on the base, a crib bottom arranged on the support and formed with perforations, a crib wall rising from the bottom and formed at sections, the lower section being perforated and the remaining sections being imperforted, a top arranged on the upper end of the wall and a ventilator opening through the top directly into the crib at the top, whereby air may be drawn through the crib bottom and lower wall section and caused to circulate through the material in the crib and through the ventilator through natural draft.

In testimony whereof I affix my signature.

ROYAL E. MARTIN.