

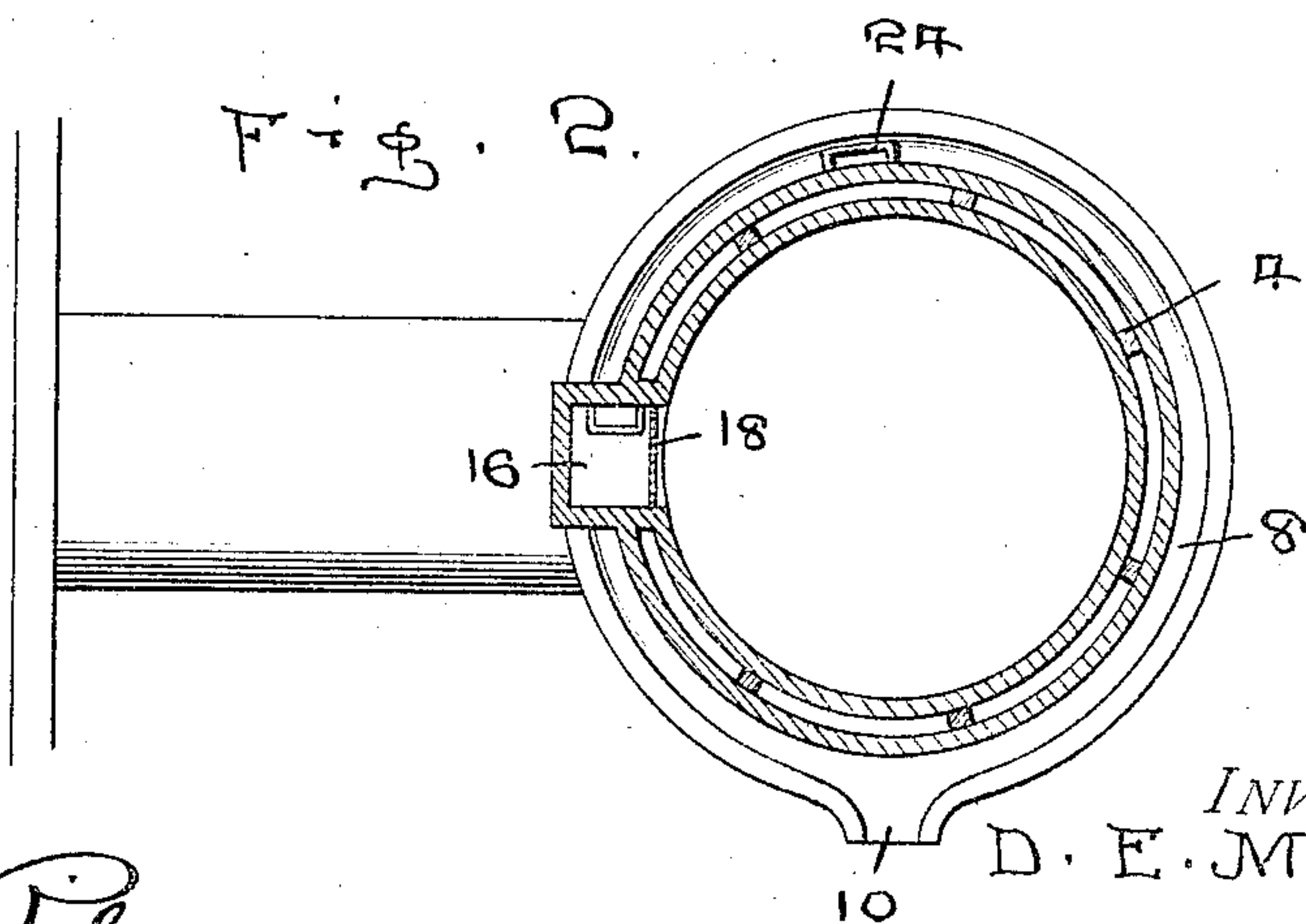
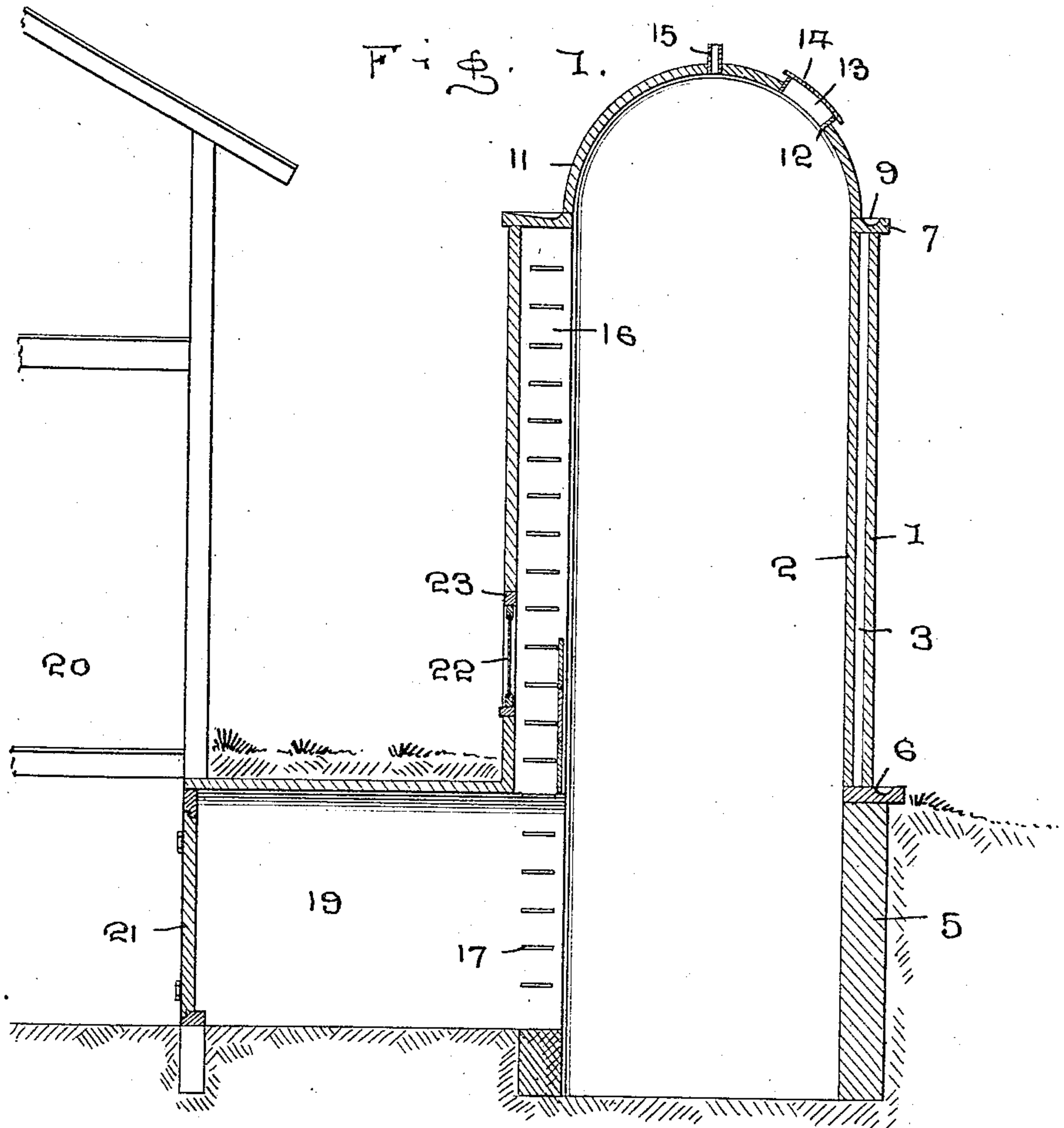
D. E. MONTA.

SILLO.

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935,269.

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WITNESSES:

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DAVID E. MONTA, OF GENESEE DEPOT, WISCONSIN.

SILO.

935,269.

Specification of Letters Patent. Patented Sept. 28, 1909.

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To all whom it may concern:

Be it known that I, DAVID E. MONTA, a citizen of the United States, residing at Genesee Depot, in the county of Waukesha and State of Wisconsin, have invented certain new and useful Improvements in Silos; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in silos and my object is to construct a device of this class which will be air tight when properly closed.

A further object is to provide a double wall to form an air space.

A further object is to provide a passageway in connection with the silo, whereby the contents of the silo may be removed and deposited direct from the passage into a building.

A further object is to provide a chamber in one wall of the silo and place a ladder therein whereby access may be had to the silo at any point in its height.

A further object is to provide windows in parts of the silo to admit light thereto and a still further object is to provide suitable drainage for the silo.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings forming part of this application, Figure 1 is a central vertical sectional view through the silo and passage therefor, and, Fig. 2 is a transverse sectional view through the silo at a point above the passage.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 and 2 indicate the outer and inner walls, respectively, of the silo, which walls are constructed of any suitable material, such as stone, brick, cement or the like, and are spaced apart to form an air space 3, the two walls being interlocked with each other by means of bars 4 as shown in Fig. 2, the ends of the bars being seated in the walls. The walls 1 and 2 are placed upon a foundation 5, which may be constructed of any suitable material, a base plate 6 being introduced between the wall and foundation, while a similar plate 7 is placed on the upper ends of the walls, said plates being preferably

formed of cement and provided with gutters 8 and 9, respectively, which gutters terminate in spouts 10 and are adapted to carry water away from the outer wall of the silo to protect the same from dampness.

Resting upon the plate 7 is a dome 11, which is preferably constructed of brick and covered with any suitable coating such as coal tar, or the like, a coating of sand being then placed over the dome while the tar is in a soft state and in view of the arch of the dome, it will be self supporting. The dome is provided with an opening 12 in which is seated a frame 13, said opening forming a space for filling the silo and in order to seal the silo, the frame 13 is to be covered with glass 14 or like transparent substance, thereby admitting light to the interior of the silo and in addition to the opening in the dome, it is provided with a vent 15, in its apex.

Extending vertically of the walls 1 and 2 is a chamber 16, which is of sufficient width to admit the body of a person and extends the full height of said walls and by providing steps 17 on one wall of the chamber, access may be readily had to the interior of the silo at any point in its height. The inner face of the chamber 16 communicates with the interior of the silo and in order to close communication between the chamber and silo, boards, or the like 18, are introduced into the opening between the chamber and silo, said boards being placed one upon the other and introduced into position as the silo is filled or if preferred, all of the boards may be placed in position before filling the silo.

Communicating with the lower portion of the silo is a passage 19, which is of sufficient height to admit a person therein and is preferably located below the ground, the end farthest from the silo communicating with the interior of a building 20 and in order to securely close the passage, the opening therein is provided with an air tight door 21, which when closed will prevent the entrance of air into the silo at this point.

One wall of the chamber 16 is provided with a window 22, the object of which is to provide light for the exterior of the chamber and by making the frame 23 containing the window, air tight, the air will be excluded from the silo at this point.

In order to gain access to the interior of the dome 11, the bars 24 are secured to the

outer face of the wall 1 so that the wall of the silo can be readily scaled to remove the cover from the opening 12 or place the same in position thereover or for other purposes desired.

In filling the silo, the glass is removed from the frame 13 and the contents to be placed in the silo, entered through the opening and as the silo fills with the ensilage, the boards are to be placed one above the other until the top of the chamber 16 has been reached, any suitable means for retaining the boards in position, being employed. After the silo has been filled, the glass is again placed over the frame 13 and if it is desired to make the silo air tight, the vent 15 is also closed and the silo can be maintained in this condition as long as the openings in the dome and the door 21 are kept closed.

This form of silo may be readily and cheaply constructed and is practically indestructible and by providing the air space between the walls, said walls will be practically frost proof and it will likewise be seen that by providing the passage underground and connecting the same with a building, the silo can be emptied without leaving the building, other than the entering of the silo through the passage. It will further be noted that the lower end of the chamber 16 communicates with the passage so that ready access may be had to the chamber at all times.

What I claim is:

1. The herein described silo construction, comprising walls having an air space therebetween, a foundation for said walls, plates arranged above and below said walls, said plates having drainage channels therein, the channels in each plate discharging at a common point, laterally of said walls, a dome arranged upon the upper one of said plates, with its base located adjacent to the drainage channel of said plate, the base of the outer one of said walls also being arranged adja-

cent to the drainage channel of the lower base plate.

2. A device of the character described, comprising walls having an intermediate air space, a foundation for said walls, plates arranged above and below said walls, having drainage channels therein, a dome superposed with relation to the upper one of said plates, a lateral supplemental chamber arranged exteriorly of said walls and communicating with a chamber formed by said walls, a subterranean passage communicating with the first referred to chamber and having an entrance beyond said first referred to chamber.

3. A device of the character described, comprising walls having an air space therebetween, a foundation for said walls, plates arranged above and below said walls, having drainage channels therein, a dome arranged upon the upper plate, with its base contiguous to the drainage channel of said plate, the outer one of said walls having its base arranged adjacent to the drainage channel of the lower one of said plates, an underground passageway communicating with the chamber formed by said walls, said passageway having a closure at its end distant from said chamber, and an additional chamber extending vertically with relation to said walls and opening into the chamber formed thereby, said supplemental chamber being arranged exteriorly of said walls and communicating at its lower end with said underground passageway, said supplemental chamber being provided with means for ascending the same, and means for forming a temporary closure between said wall-formed chamber and said supplemental chamber.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID E. MONTA.

Witnesses:

T. DAVID EDWARDS,
JOHN EDMUNDS.