P. O. SWEDBERG.

BARN CONSTRUCTION.

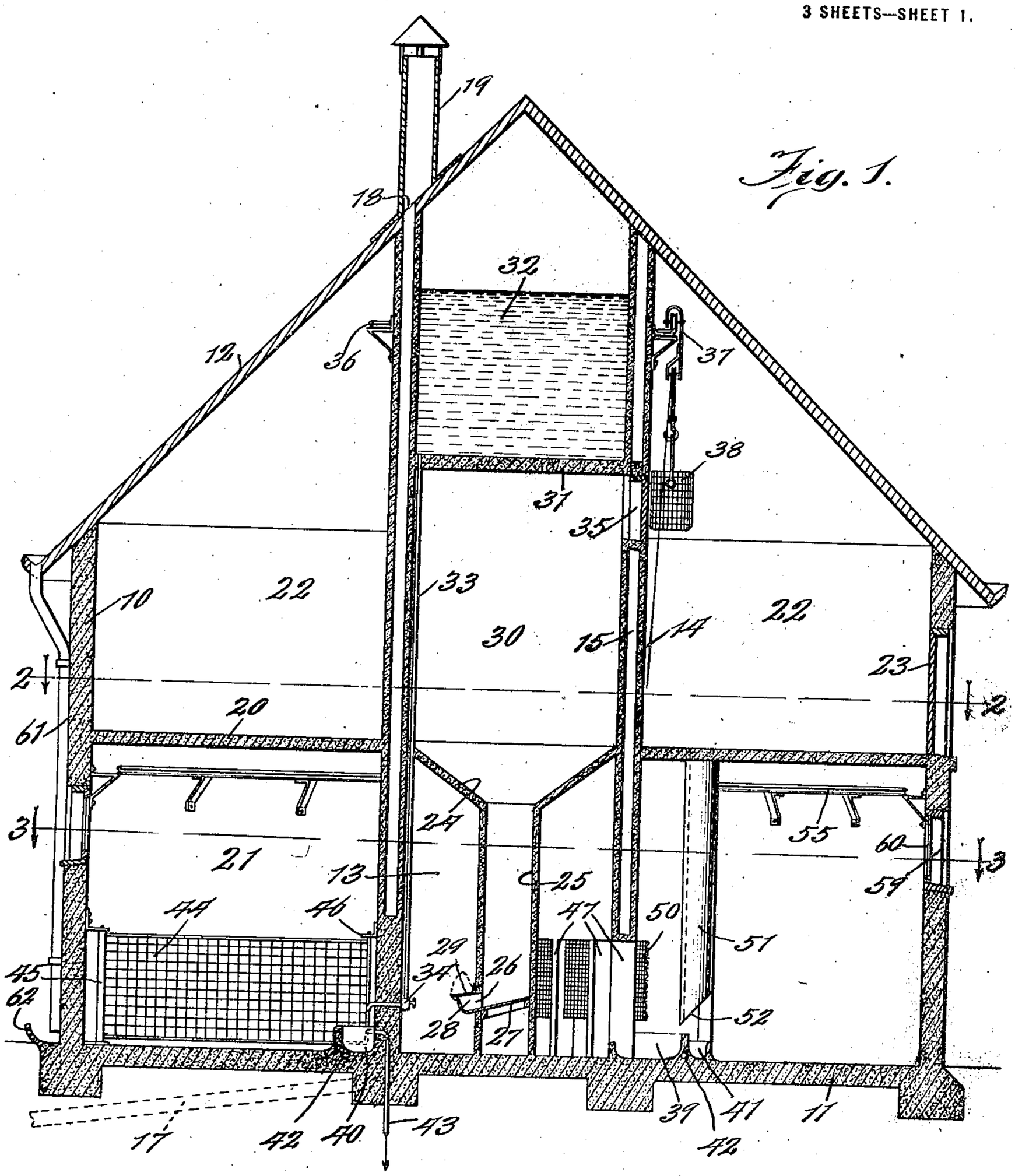
APPLICATION FILED MAY 13, 1915.

1,167,129.

Patented Jan. 4, 1916.

3 SHEETS—SHEET 1.

Fig. 1.



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3 SHEETS—SHEET 2.

Fig. 2.

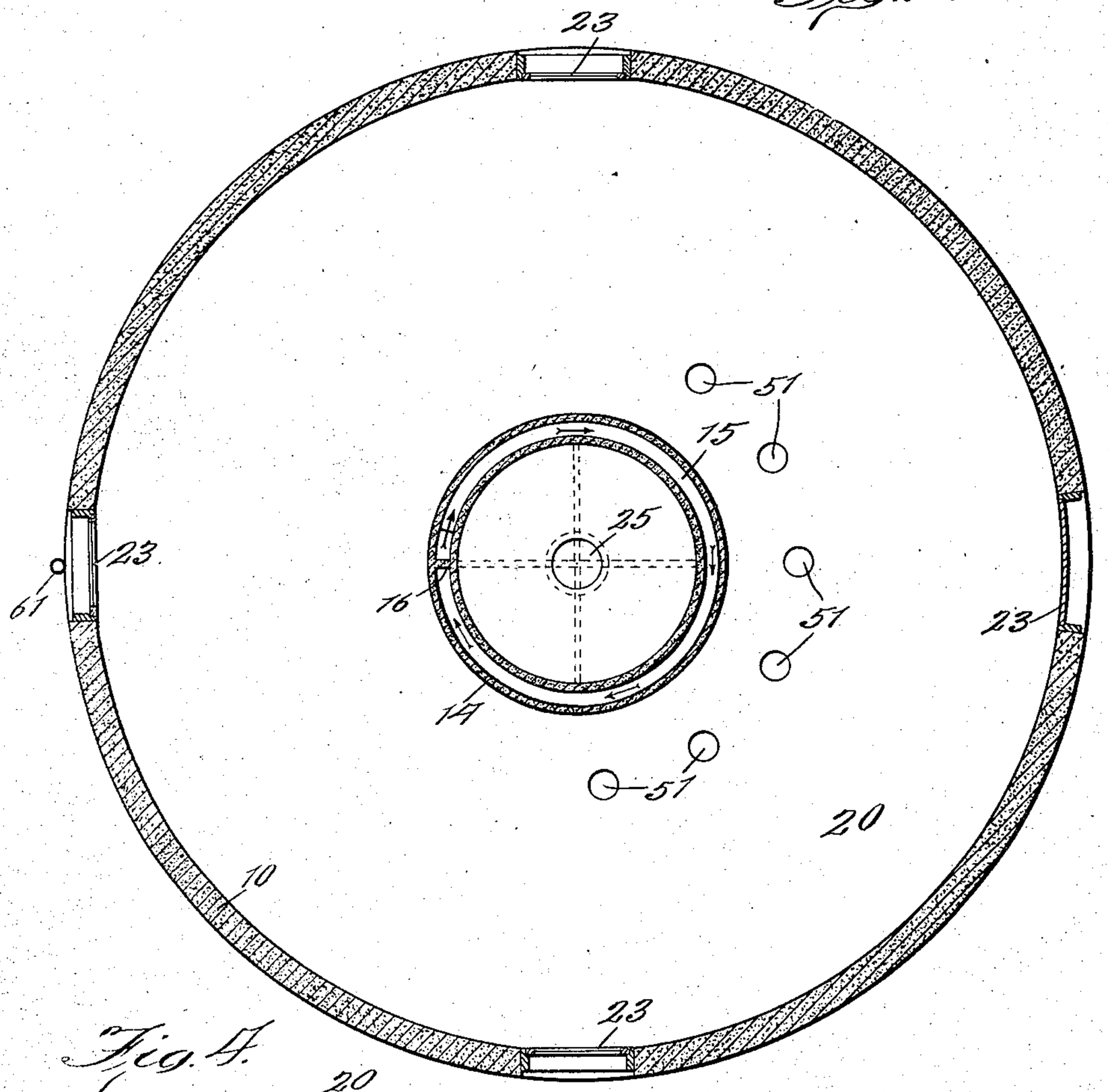
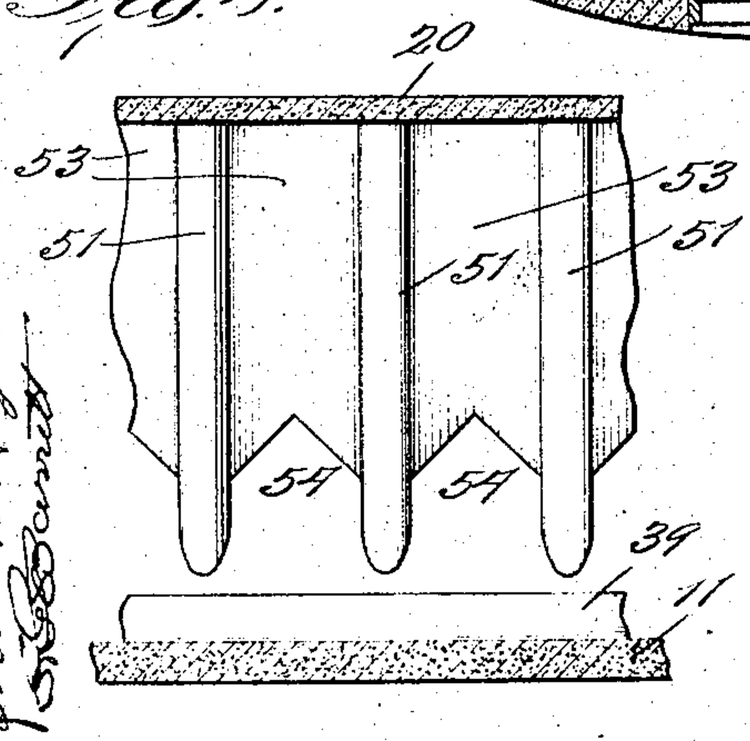


Fig. 4.



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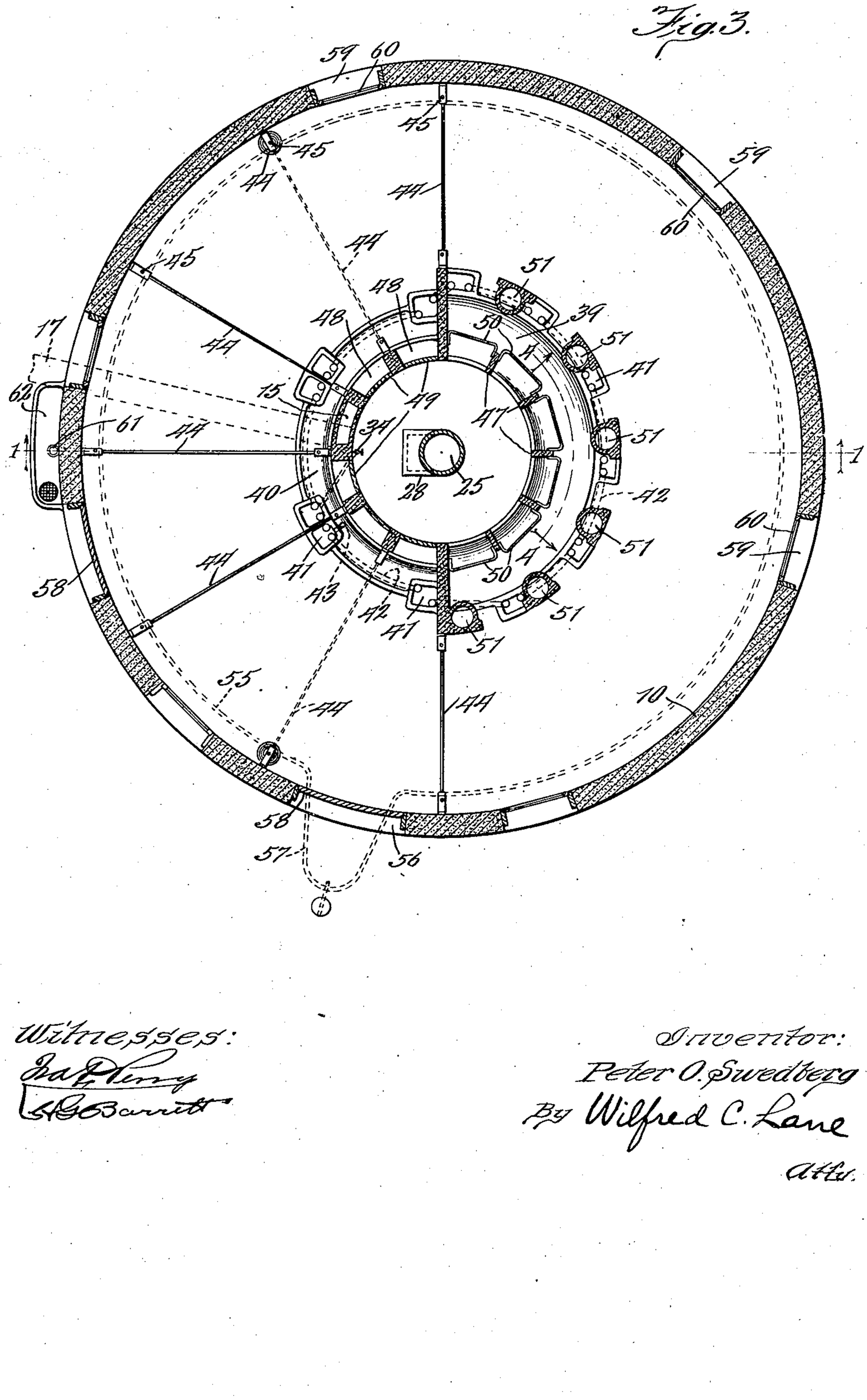
3 SHEETS—SHEET 3.

Fig. 3.



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UNITED STATES PATENT OFFICE.

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BARN CONSTRUCTION.

1,167,129. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed May 13, 1915. Serial No. 27,807.

To all whom it may concern:

Be it known that I, PETER O. SWEDBERG, a citizen of the United States, residing at Marshalltown, in the county of Marshall and State of Iowa, have invented certain new and useful Improvements in Barn Construction, of which the following is a specification.

This invention relates to improvements in barn construction for housing, feeding and caring for live stock, and one of the objects of the invention is to provide an improved structure of this character, whereby a number of animals may be conveniently arranged, housed and expeditiously handled and cared for.

Other and further objects will appear from the following specification and claims in connection with the accompanying drawings, in which—

Figure 1 is a vertical longitudinal sectional view of an improved structure of this character, constructed in accordance with the principles of this invention, and as taken on line 1—1, Fig. 3. Fig. 2 is a detail horizontal sectional view taken on line 2—2, Fig. 1. Fig. 3 is a horizontal sectional view taken on line 3—3, Fig. 1. Fig. 4 is a detail sectional view taken on line 4—4, Fig. 3.

Referring more particularly to the drawings, the construction comprises the outer wall 10, a floor 11 and a roof 12, all of any desired size and configuration and constructed of any suitable material.

Within the structure is arranged a central chamber 13, which latter is formed by a wall 14 and this wall is of a hollow construction to form a space 15, within which space is arranged an upright partition 16 extending from the top of the structure to the bottom thereof, and an inlet 17, is provided which leads into the bottom of the space in this wall through which pipe a heating medium may be supplied to the space 15. The partition 16 causes the heating medium to circulate within the space 15 and finally pass out of an opening 18 in the roof over which opening is arranged a chimney 19. With this construction it will be manifest that the interior of the building will be heated.

Arranged above the floor 11 is a horizontal partition 20 which is spaced any desired distance from the floor to form a ceiling of a chamber 21. The chamber 22 is provided for storing food such as hay or the like, which may be placed into this chamber through one or more doors or windows 23 in the outer wall of the building.

Within the central chamber 13 is arranged a hopper or chute 24, which is spaced above the floor 11 of the building and leading from this chamber 24 is a spout 25 which has an opening 26 adjacent the bottom 27 and a receptacle 28 is connected with the spout adjacent the opening 26 and this receptacle 28 is provided with a closure 29. The hopper 24 forms the bottom of a chamber 30 within which fine food or grain may be stored so as to be directed down the spout 25 into the receptacle 28, from which latter it may be conveniently removed when desired. The spout 25 is of a size considerably smaller than the chamber 13 so as to permit free passage in the chamber. A horizontal partition 31 is also arranged across the chamber 30, some distance above the hopper 24 and this partition 31 coöperates with the surrounding wall 14 to form a water trough 32, leading from which is a pipe 33, which extends toward and terminates short of the bottom 11 of the building, and is provided with a valve or cutoff 34.

The grain or food is supplied to the chamber 30 through one or more door or window openings 35, in any suitable manner, and an elevated track or runway 36 is connected with the outside of the wall 14 to extend around the chamber 22, upon which track is mounted a carriage 37, which supports a receptacle 38 for transporting material from one side of the building to the other.

Surrounding the chamber 13 and adjacent the floor 11 of the building and on one side of the building is a trough 39, while a smaller trough 40 is arranged on the other side of the building, and these troughs are adapted to receive the food for the animals. A series of water troughs 41 are arranged adjacent the troughs 39, 40 and spaced from each other and these water troughs have communication with each other by means of the passage ways 42 formed in the wall of the structure, or they may be formed by pipes if desired.

The passage ways 42 form communication between all of the water troughs and the water troughs are supplied from the tank 32 through the pipe 33 when the cutoff or faucet 34 is open and being all connected the troughs will be successively filled. An overflow pipe 43 is also provided leading

from one of the water troughs to prevent the troughs from overflowing. The chamber 21 is divided into a number of stalls or compartments in any suitable manner, such as by means of collapsible or adjustable partitions 44, which are preferably constructed of wire gauze and each partition is adapted to be wound upon a roller 45 suitably mounted, when it is desired to enlarge any one of the stalls and when the partitions are not in use. The free end of the partition is held in any desired manner such as by means of a catch or holding device 46.

The partitions 44 are preferably arranged on one side of the building or on that side adjacent the small troughs 40 , so as to divide that portion of the building into stalls for the small animals, while the other side of the building is free from such partitions, but obviously if desired, they may be arranged on both sides of the building.

On the side of the building adjacent the larger stalls 39, the wall 14 terminates some distance short of the floor 11 of the building, and the space between the lower edge of this wall and the floor of the building is divided by means of a plurality of spaced piers 47, which form openings through which food may be placed into the troughs 39 from the chamber 13. The wall 14 on the other side of the building adjacent the smaller troughs 40 is provided with a series of door openings 48 through which food may be placed in the troughs 40 and these door openings 48 are closed by suitable closures 49.

A screen or grating 50 is arranged between each pair of piers 47 and this screen or grating projects over the troughs 39 but terminates some distance short of the top of the troughs so as not to interfere with the placing of food in the troughs.

On the same side of the building as the larger troughs 39, are arranged a series of chutes 51 which lead from the chamber 22 and terminate short of the trough 39 and are each provided with an opening 52 adjacent their bottom through which opening food may be drawn, if hay is supplied to the chute, or if dry or fine food is supplied to the chute, it will be discharged in the trough 39. These chutes 51 are spaced from each other, and the spaces therebetween are closed by a partition 53 which is cut away as at 54 adjacent its bottom to permit the animal to pass its head between the adjacent chutes 51, so as to have access to the trough.

A track or runway 55 may be provided in the chamber 21 to extend therearound and a portion of this track extends through an opening 56 in the outer wall of the building as at 57 to form an extension and upon which extension a carrier may be mounted to carry material from the outside to the inside of the building and around the chamber 21. A plurality of doors 58 may be supplied in the outer wall of the building and any number of window openings 59, closed by windows 60 may also be provided.

A down spout 61 leads from the roof 12 and discharges into a trough 62 on the outside of the building.

With this improved construction, it will be manifest that the animals may be readily and conveniently handled and when it is desired to move or transfer the smaller animals from one stall to another, when the partitions 44 are in position, all that is necessary is to open the doors or closures 49 and drive the animals into the chamber 13 and from there into the desired stall.

Considerable space is provided between the wall 14 and the chutes 41, forming an extended passage way.

What is claimed as new is:

1. A building provided with a wall arranged therein to form two chambers one of which is encompassed by the other, the innermost chamber being considerably smaller than the outer chamber, a partition extending across the inner chamber above the floor of the building to form a food compartment, a chute leading from said compartment and having an opening adjacent the floor of the building, said chute being of a size considerably smaller than the chamber to form a passage therearound, and one or more troughs arranged in the outer chamber adjacent the said wall, there being openings through the wall adjacent the trough to form communicating passages between the two chambers.

2. A building provided with a wall arranged therein to form two chambers one of which is encompassed by the other, the innermost chamber being considerably smaller than the outer chamber, a partition extending across the inner chamber above the floor of the building to form a food compartment, a chute leading from said compartment and having an opening adjacent the floor of the building, said chute being of a size considerably smaller than the chamber to form a passage therearound, one or more troughs arranged in the outer chamber adjacent the said wall, there being openings through the wall adjacent the trough to form communicating passages between the two chambers, and guards for said openings.

3. A building provided with a wall arranged therein to form two chambers one of which is encompassed by the other, the innermost chamber being considerably smaller than the outer chamber, a partition extending across the inner chamber above the floor of the building to form a food compartment, a chute leading from said

compartment and having an opening adjacent the floor of the building, said chute being of a size considerably smaller than the chamber to form a passage therearound, one or more troughs arranged in the outer chamber adjacent the said wall, there being openings through the wall adjacent the trough to form communicating passages between the two chambers, said wall being hollow, and means for directing a heating medium into the spaces in said wall to circulate therearound, there being an outlet from said space to the outside of the building.

4. A building provided with a wall arranged therein to form two chambers one of which is encompassed by the other, the innermost chamber being considerably smaller than the outer chamber, a partition extending across the inner chamber above the floor of the building to form a food compartment, a chute leading from said compartment and having an opening adjacent the floor of the building, said chute being of a size considerably smaller than the chamber to form a passage therearound, one or more troughs arranged in the outer chamber adjacent the said wall, there being openings through the wall adjacent the trough to form communicating passages between the two chambers, and adjustable partitions dividing the outer chamber into a plurality of stalls.

5. A building provided with a wall arranged therein to form two chambers one of which is encompassed by the other, the innermost chamber being considerably smaller than the outer chamber, a partition extending across the inner chamber above the floor of the building to form a food compartment, a chute leading from said compartment and having an opening adjacent the floor of the building, said chute being of a size considerably smaller than the chamber to form a passage therearound, one or more troughs arranged in the outer chamber adjacent the said wall, there being openings through the wall adjacent the trough to form communicating passages between the two chambers, and collapsible flexible partitions dividing the outer chamber into a plurality of stalls.

6. A building provided with a hollow wall arranged therein to form two chambers, one of which is encompassed by the other, the inner chamber being considerably smaller than the outer chamber, means for circulating a heating medium through the hollow wall, troughs arranged in the outer chamber adjacent the said wall, there being openings through the wall adjacent the troughs, closures for the openings, a food chute in the inner chamber, said chute provided with an opening adjacent the floor of the chamber, and adjustable partitions dividing the outer chamber into stalls.

7. A building provided with a hollow wall arranged therein to form two chambers, one of which is encompassed by the other, the inner chamber being considerably smaller than the outer chamber, means for circulating a heating medium through the hollow wall, troughs arranged in the outer chamber adjacent the said wall, there being openings through the wall adjacent the troughs, closures for the openings, a food chute in the inner chamber, said chute provided with an opening adjacent the floor of the chamber, and flexible partitions dividing the outer chamber into stalls.

8. A building provided with a hollow wall arranged therein to form two chambers, one of which is encompassed by the other, the inner chamber being considerably smaller than the outer chamber, means for circulating a heating medium through the hollow wall, troughs arranged in the outer chamber adjacent the said wall, there being openings through the wall adjacent the troughs, closures for the openings, a food chute in the inner chamber, said chute provided with an opening adjacent the floor of the chamber, flexible partitions for dividing the outer chamber into stalls, and means for rolling the partitions.

9. A building provided with a hollow wall disposed therein dividing the same into two chambers, one of which encompasses the other, food troughs in the outside chamber adjacent the wall, water receptacles also adjacent the wall, a water tank disposed within the inner chamber, means for conveying the water from the tank to the receptacles, and means for circulating a heating medium within the hollow wall.

10. A building provided with a hollow wall disposed therein dividing the same into two chambers, one of which encompasses the other, food troughs in the outside chamber adjacent the wall, water receptacles also adjacent the wall, a water tank disposed within the inner chamber, means for conveying the water from the tank to the receptacles, means for circulating a heating medium within the hollow wall, a food compartment in the inner chamber below the tank, and a chute leading from the compartment, there being openings through the said wall adjacent the troughs.

11. A building provided with a hollow wall disposed therein dividing the same into two chambers, one of which encompasses the other, food troughs in the outside chamber adjacent the wall, water receptacles also adjacent the wall, a water tank disposed within the inner chamber, means for conveying the water from the tank to the receptacles, means for circulating a heating medium within the hollow wall, a food compartment in the inner chamber below the tank, an upright chute leading from the compartment

and of a size somewhat smaller than the inner chamber and having a discharge opening adjacent the floor of the chamber, and a receptacle adjacent said opening, there being openings through the said wall adjacent the troughs.

In witness whereof, I hereunto subscribe my name to this specification in the presence of two witnesses.

PETER O. SWEDBERG.

Witnesses:
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