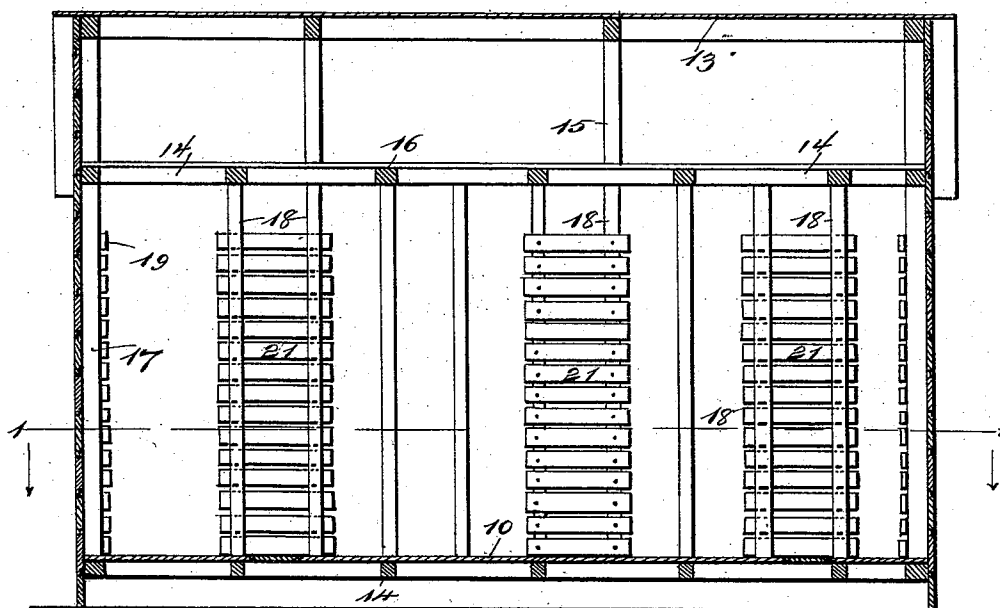


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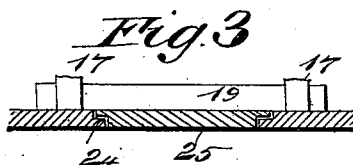
No. 532,736.

Patented Jan. 15, 1895.



WITNESSES:

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INVENTOR

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(No Model.)

2 Sheets—Sheet 2.

S. E. KURTZ.
GRAIN BIN.

No. 532,736.

Patented Jan. 15, 1895.

Fig. 4

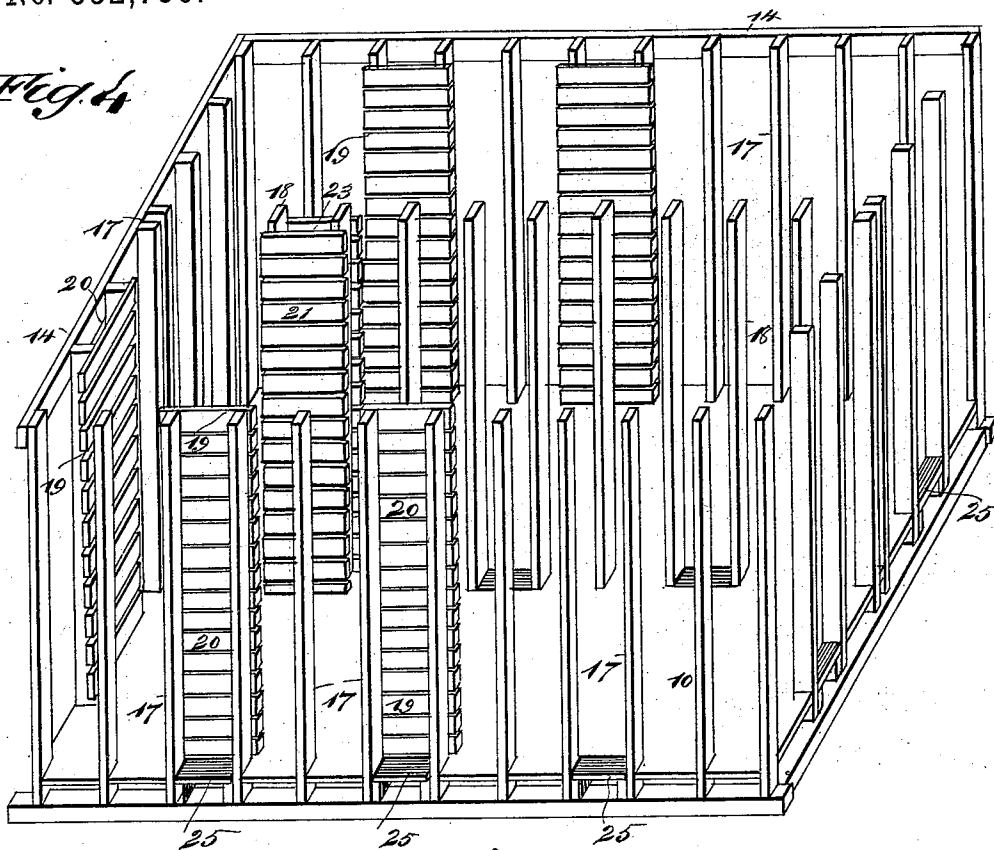
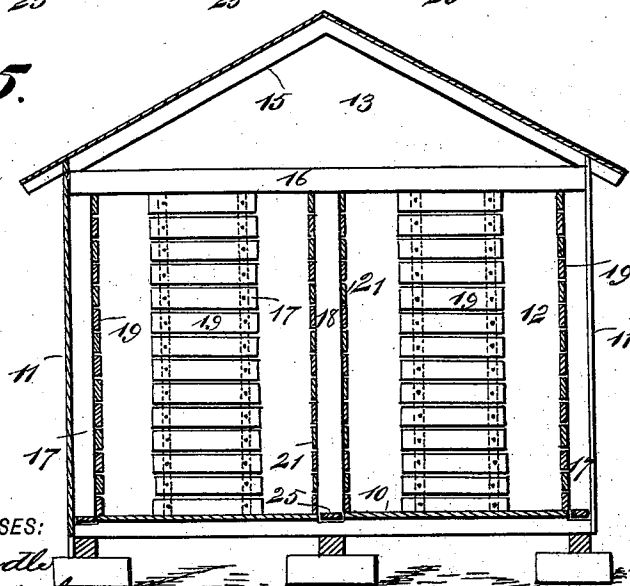


Fig. 5



WITNESSES:

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UNITED STATES PATENT OFFICE.

SAMUEL E. KURTZ, OF GREENFIELD, IOWA, ASSIGNOR OF ONE-HALF TO
HENRY KURTZ, OF FOOSLAND, ILLINOIS.

GRAIN-BIN.

SPECIFICATION forming part of Letters Patent No. 532,736, dated January 15, 1895.

Application filed May 31, 1894. Serial No. 513,043. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL E. KURTZ, of Greenfield, in the county of Adair and State of Iowa, have invented a new and Improved Grain-Bin, of which the following is a full, clear, and exact description.

My invention relates to an improvement in grain bins, and it has for its object to provide a bin capable of being conveniently and inexpensively changed from a ventilated bin for ear corn to an inclosed bin for shelled corn, wheat and other grain.

A further object of the invention is to provide a bin which will protect ear corn from the weather, and to so construct the bin that the ear corn stored therein will be thoroughly dried by currents of air passing through it, and whereby in an expeditious manner the bin may be changed so as to form a thoroughly close structure, for the storage and protection of shelled corn, or other loose grain, thus enabling one structure to be adapted for two uses, each adaptation providing for an efficient storage of the material desired to be stored.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a horizontal section through the improved bin, taken practically on the line 1—1 of Fig. 2. Fig. 2 is a central vertical section taken essentially on the line 2—2 of Fig. 1. Fig. 3 is a sectional view, taken through the floor section of one of the ventilators of the bin. Fig. 4 is a perspective view of the body portion of the improved bin, the roof being removed, and illustrating the arrangement of the studding and formation of the ventilators; and Fig. 5 is a cross section through the complete bin.

In carrying out the invention the bin consists of a flooring 10, supported in any approved or suitable manner a predetermined distance from the ground, and side and end sections 11 and 12, which are carried upward

to meet a roof 13, preferably a pitched roof, but the form of roof is immaterial. The roof is made to rest upon suitable beams 14, and the rafters 15 of the roof are supported by the ordinary roof plates 16. The sides and end portions of the buildings may be of any substantial weather proof material, such as, for example, weather boarding, but drop siding is preferred, the weather boarding or drop siding being secured in any approved manner to studding 17. Studding 18 is also located at or near the central portion of the structure when such central support is required, in which event the central studding extends upward to meet an upper beam, parallel with the side plates or beams of the roof, or practically so. Sundry of the side and end studdings are connected through the medium of slats 19, the slats being preferably horizontally laid at predetermined intervals apart, sufficient space being allowed between the slats to admit of a circulation of air, whereby a series of flues 20 is obtained, located at predetermined distances apart along the sides and ends of the structure.

With reference to the central studdings 18, sundry of them are connected in pairs through the medium of slats 21, attached to both sides of the studdings, forming thereby central air flues 23. In the floor at the bottom of each flue an opening 24, is produced, through which the air may enter and circulate throughout the structure. When these openings are unclosed the bins are especially adapted to receive ears of corn, and the currents of air passing through the flues and out therefrom through the length of the flues, will circulate from the flues between the slats and through the corn, and will thoroughly dry and preserve the latter; while the bin being closed upon all sides and at the top will effectually preserve the corn against the action of the weather.

In the event the bin is to be used for storing shelled corn or threshed grain, the only change necessary in its construction is to cover the bottom openings 24 in the flues by a door 25, or its equivalent, as illustrated in Fig. 3.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. A grain bin, the same consisting of a closed structure, vertical studding to which
5 the walls of said structure are secured, slats connecting sundry of said studding in pairs, the said slats being spaced apart and forming with said studding a series of flues communicating with the interior of the structure
10 through the spaces between the slats, and an opening in the floor of the structure at the bottom of each flue communicating with the outside atmosphere, as and for the purpose set forth.
- 15 2. A grain bin, the same consisting of an inclosed structure provided with side studding to which the walls of the structure are

secured, and central studding for supporting the upper part of the structure, sundry of which studding are connected in pairs by
20 slats forming with said studding a series of flues, the floor of each flue being provided with an opening communicating with the outside atmosphere, one side of the side and end
25 flues and two sides of the central flue being open at points throughout their length, and covers capable of closing the bottom openings in the flues, as and for the purpose set forth.

SAMUEL E. KURTZ.

Witnesses:

JNO. J. HETHERINGTON,
A. P. LITTLETON.