

(No Model.)

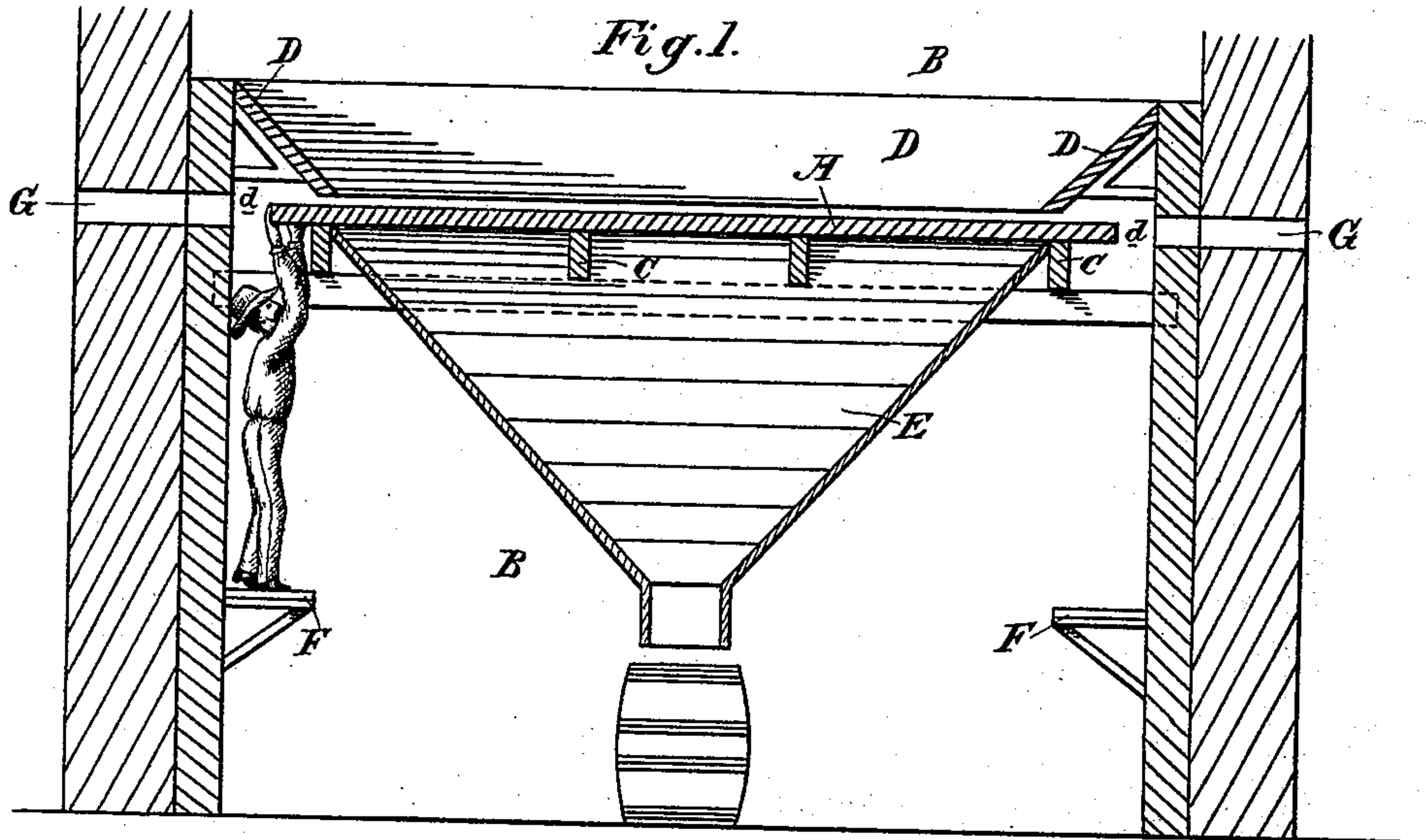
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W. JONES.

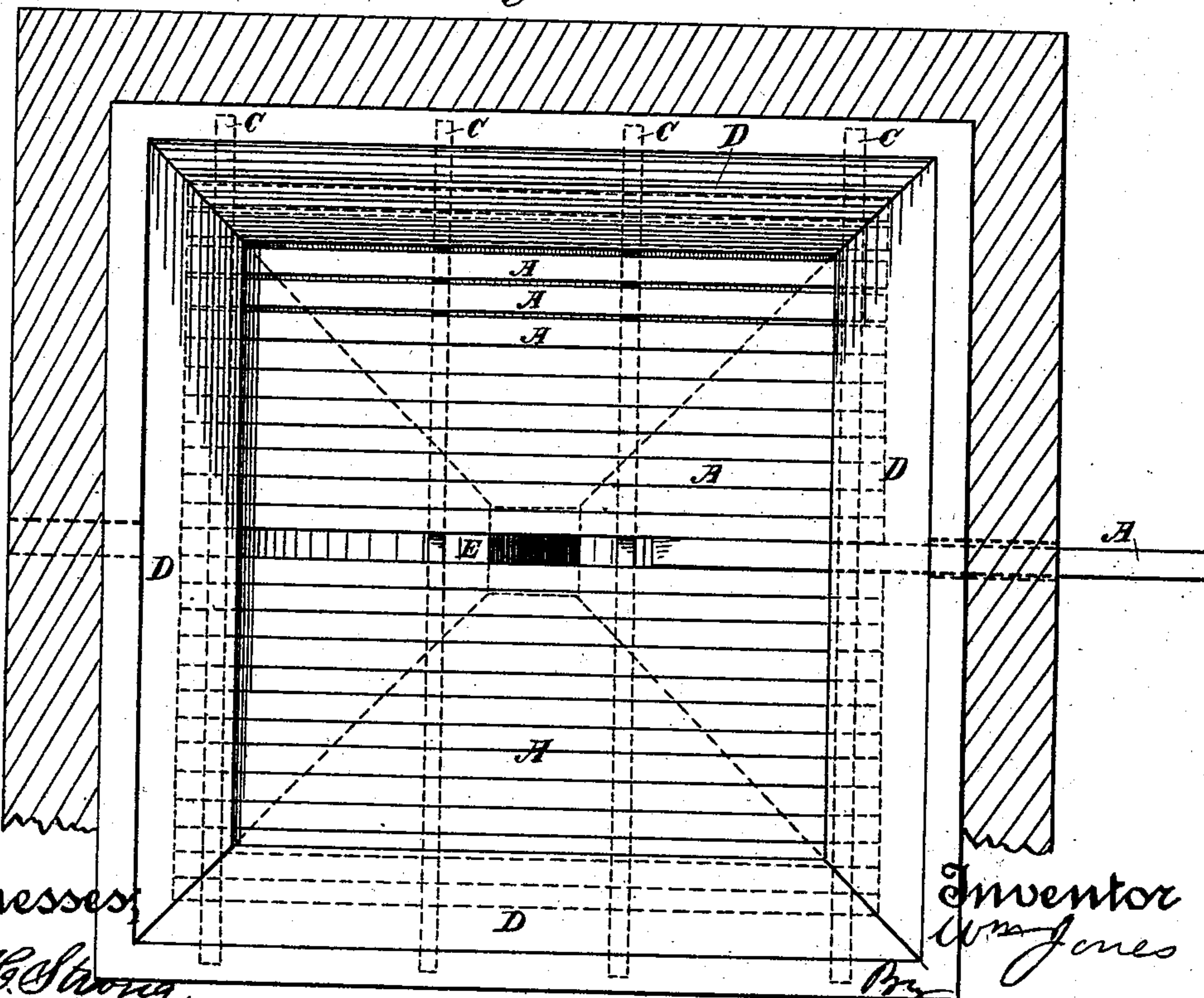
STORAGE FLOOR.

No. 359,159.

Patented Mar. 8, 1887.



*Fig. 2.*



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(No Model.)

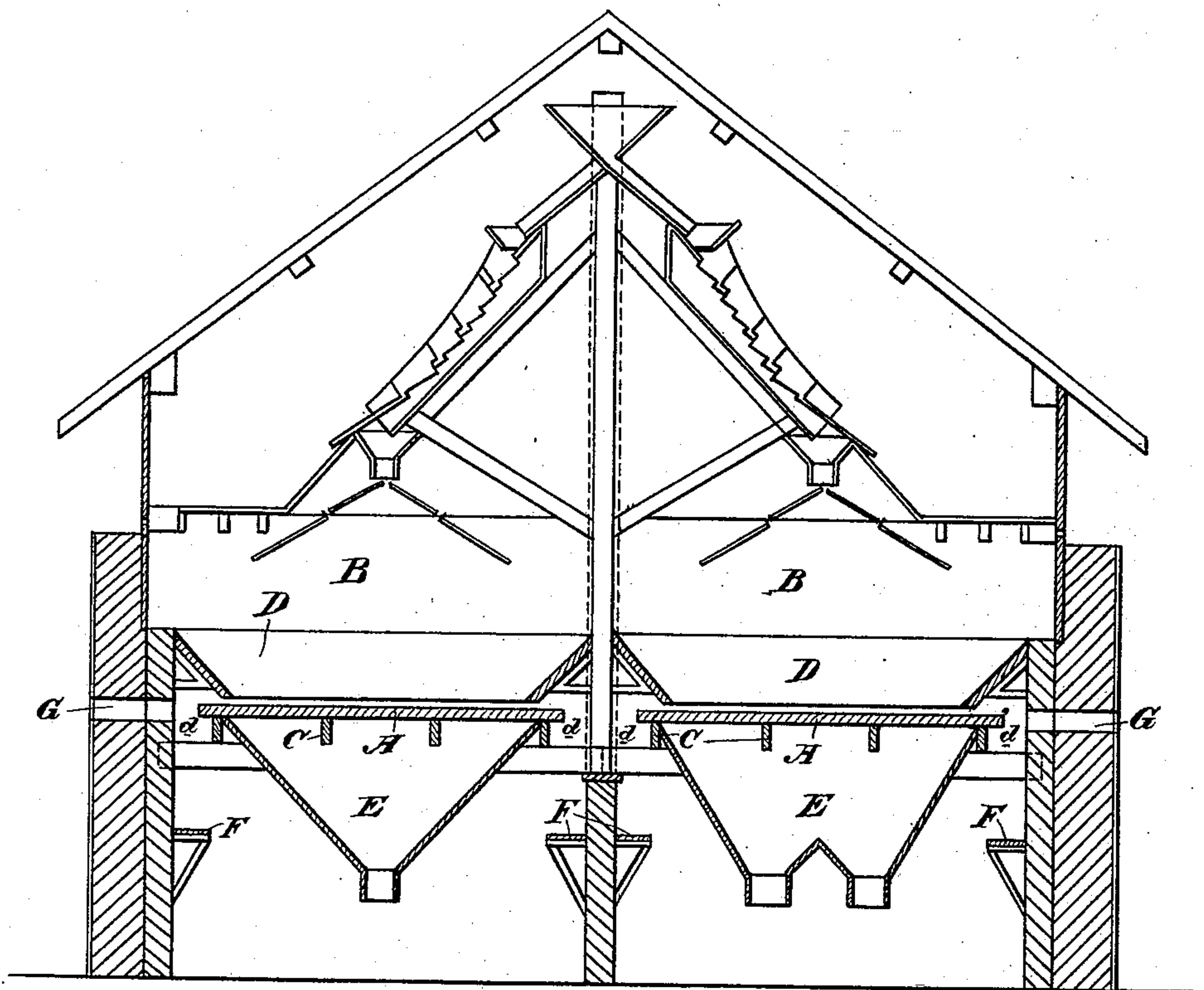
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*Fig. 3.*



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# UNITED STATES PATENT OFFICE.

WILLIAM JONES, OF SAN FRANCISCO, CALIFORNIA.

## STORAGE-FLOOR.

SPECIFICATION forming part of Letters Patent No. 359,159, dated March 8, 1887.

Application filed May 27, 1886. Serial No. 203,425. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM JONES, of the city and county of San Francisco, State of California, have invented an Improvement in Storage-Floors; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a new and useful floor for storing quantities of materials, such as grain, cement, crushed ore, rock, or other substances; and my invention consists in a floor which is composed of a number of independent movable pieces or strips laid close together upon suitable supports and adapted to support the materials and by their movement to discharge them; in inclined plates within the compartment or room and overlapping the ends of the movable strips of the floor, whereby a space is formed from which the materials stored upon the floor are excluded, thus affording opportunity for handling the strips of the floor, and in a mixing-chute located below the floor, all of which I shall hereinafter fully describe.

The object of my invention is to provide a floor for the handling of the material, which shall be so constructed that when loaded the contents may be readily, either wholly or in part, discharged from different parts of the floor simultaneously, and in discharging will mix the materials.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a sectional elevation of my storage-floor. Fig. 2 is a plan of the same. Fig. 3 is a sectional view of a storage-house having chutes and screens to deliver material to two bins or receptacles.

The storage-floor is constructed by placing together upon proper supports, C, loose slats, rails, or strips A, or other pieces, which can, when the floor is loaded, be readily moved for the purpose of discharging the material thereon by allowing it to fall therefrom. In order to provide for the easy movement of the floor sections or strips, the storage-room B is constructed, as shown, with inclined plates D, extending from the wall of the compartment out onto the floor. These plates do not come down to the floor, but finish at a sufficient height to allow the easy raising or turning of the floor-strips, the ends of which pass underneath the

inclined plates a sufficient distance to allow them to be easily handled or moved by the ends or the center or other strips to be withdrawn. It will be observed that these inclined plates form a space, *d*, into which the ends of the floor-strips extend, and from which the material on the floor is excluded. The provision of this space thus enables the ready handling of the floor-strips, as described. The material on the floor can thus be delivered the full width of the floor and the full depth or thickness of the material stored from across center, both ends, and from other points at the one time, and all the discharges run together and are mixed in the large receiving-chute E, which is located under the floor, and which leads to a conveyer or mill or to the trucks or packages, as may be desired.

The operation of the floor is as follows: The material to be stored is delivered upon it in any suitable manner—such, for example, as is shown in Fig. 3. When it is desired to discharge the floor, the operator mounts upon the brackets F, which places him within reach of the ends of the floor-strips. If he desires to discharge from one side, he moves the strips at that side away from one another successively, so that by being separated they leave a space between them, through which the material falls, and he is enabled to readily move these strips of the floor by reason of the space *d*, formed behind the inclined plates D, which permits him not only to reach the ends of the strips, but also provides space enough for the side movement of said strips. If he desires to discharge from the center without discharging from the sides, it is obvious that he must entirely remove some of the center sections or strips in order to gain space enough for the movement of the others. For this purpose I provide openings G through the walls of the structure or apartment in which the floor is contained, and the operator can, by grasping the free ends of the strips, withdraw them completely by passing them outwardly through said openings. It will thus be seen that the entire contents of the floor, or any portion of it, from any part, may be discharged at once into the chute E, and in this chute a thorough mixing takes place in the passage of the material to the contracted discharge-opening of said chute.



There may be of course any number of such floors within the structure. Portland cement having a tensile strength on the cubic inch of over seven hundred pounds at twenty-eight 5 days from gaging is now placed on the market by several manufacturers. This excellence is only obtained by care in the mixture of the raw materials, in burning, and in other details of the manufacture.

10 The cement should always be stored for cooling and mixing before packing. The movable storage-floor which I have described allows the admission of air through the cement from below, thus more quickly cooling it, while the 15 cost of its removal from the storage-floor to the packages is simply the labor required in pushing back the floor-sections, which the men packing and removing casks can do as required. The value of the mixing operation which the 20 discharge from the floor enables me to carry out is seen particularly in handling Portland cement.

Having thus described my invention, what I claim as new, and desire to secure by Letters 25 Patent, is—

1. A storage-receptacle comprising independent slats, strips, or sections laid loosely on suitable supports, and when in position sustaining the load, and plates extending from 30 the walls of the apartment in which the floor is contained, said plates forming a space, within

which the ends of the floor-sections project and from which the material on the floor is excluded, substantially as and for the purpose herein described. 35

2. A storage-receptacle comprising the independent movable slats, strips, or sections A, placed loosely on suitable supports, and adapted when in position to sustain a load, the inclined plates D, forming behind them spaces, 40 from which the material on the floor is excluded and into which the ends of the sections of said floor extend, and the chute E under said floor, into which the materials are discharged from the floor by the movement of 45 its sections, substantially as herein described.

3. A storage-receptacle comprising the apartment B, having openings G, the storage-floor, composed of movable and removable independent slats, strips, or sections placed 50 loosely on suitable supports, and adapted when in position to sustain a load, the inclined plates D, secured to the walls of the apartment, and having the ends of the floor-sections passing under them, and the mixing-chute E below, 55 substantially as herein described.

In witness whereof I have hereunto set my hand.

WILLIAM JONES.

Witnesses:

C. D. COLE,  
J. H. BLOOD.