

No. 755,134.

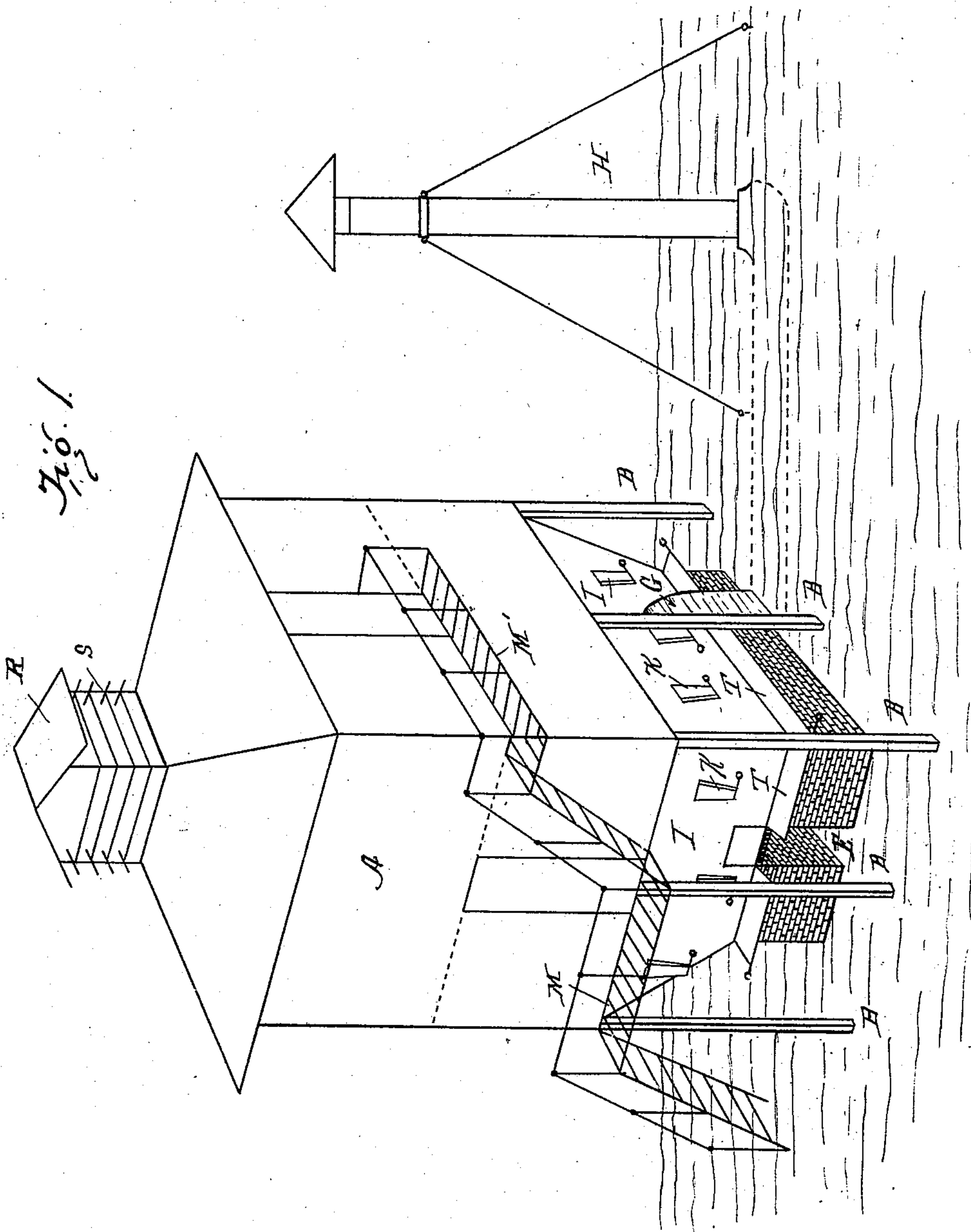
PATENTED MAR. 22, 1904.

O. HEYNSOHN.
DRY HOUSE.

APPLICATION FILED AUG. 22, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES

M. E. Brown

Chas. S. Mason

INVENTOR

O. Heynsohn
By *W. A. Bartlett*
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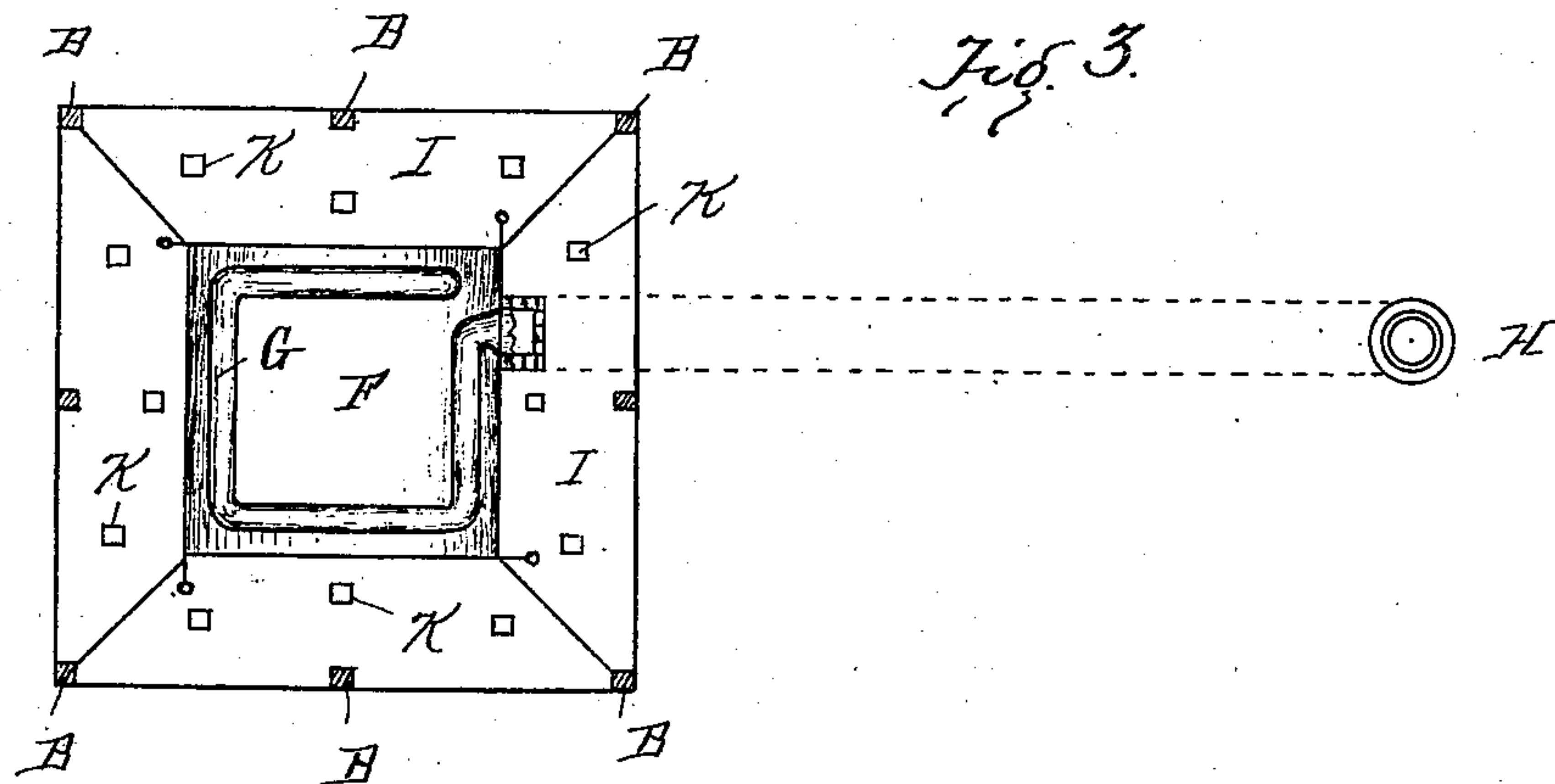
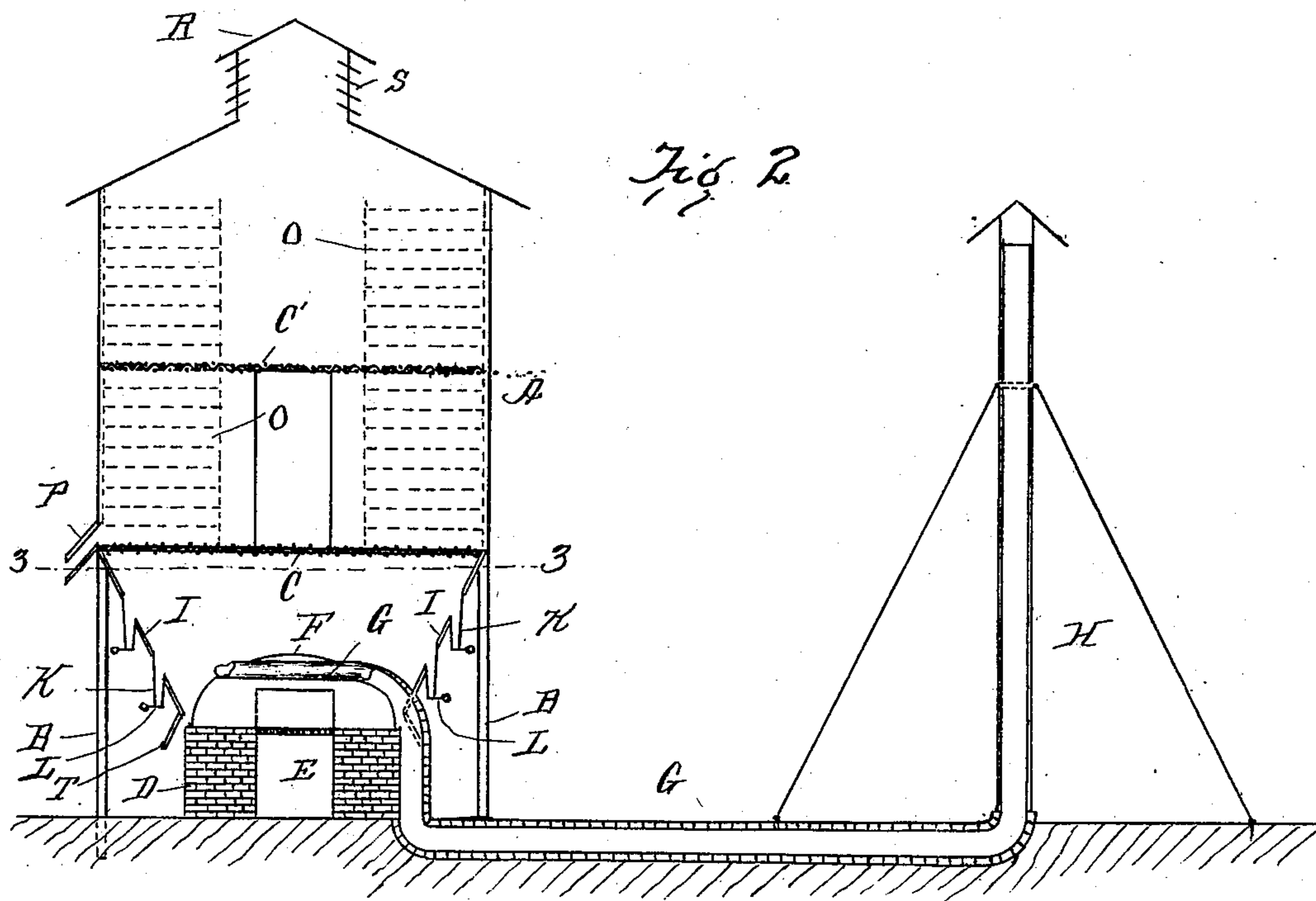
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UNITED STATES PATENT OFFICE.

OTTO HEYNSOHN, OF SAN CARLOS, COSTA RICA, ASSIGNOR OF ONE-HALF
TO FRANCIS ALSDORFF, OF PUNTA ARENAS, COSTA RICA.

DRY-HOUSE.

SPECIFICATION forming part of Letters Patent No. 755,134, dated March 22, 1904.

Application filed August 22, 1903. Serial No. 170,478. (No model.)

To all whom it may concern:

Be it known that I, OTTO HEYNSOHN, a citizen of the United States, residing at San Carlos, Republic of Costa Rica, have invented
5 certain new and useful Improvements in Dry-Houses, of which the following is a specification.

This invention relates to dry-houses or buildings adapted for the drying of fruit,
10 grain, and other material which are best dried at a moderate temperature.

The object of the invention is to produce a dry-house in which the temperature can be regulated with exactness and in which the
15 fires are accessible from outside the building or dry-rooms.

The invention consists in certain constructions and combinations of elements, substantially as hereinafter claimed.

20 Figure 1 is a perspective view of a dry-house, illustrating the principles of my invention. Fig. 2 is a vertical central section through the house and smoke-stack. Fig. 3 is a cross-section on line 3 3, Fig. 2.

25 Let A indicate the dry-house proper. This is supported mainly on tall posts or pillars B B, so that the floor C of the house is some distance from the ground. The floor C is of open, latticed, or reticulated material to permit the passage of hot air. Under this floor
30 there is a furnace D, preferably of fire-brick. The furnace is fed through the opening E, and the arch or dome F is some distance below the floor C. A smoke-flue G rises from one
35 side of arch F and preferably has a coil or coils above the arch, then descends to or below the ground-level, and leads to a smoke-stack or chimney H at some little distance from the base of the dry-house proper. It is very desirable in drying fruit that no taint of smoke
40 should reach the fruit. The placing of the stack at a distance prevents difficulty from this source, while the coil in the smoke-flue under floor C gives opportunity for the utilization of much of the furnace heat which
45 might otherwise escape from the flue by way of the chimney.

From the sides of the furnace about on a level with the spring of the arch or dome a

hopper-formed chamber extends to the floor 50 C. The walls I of this chamber have downwardly-extending air-ducts K, each provided with a valve or cover L. These air-ducts can be opened to permit comparatively cool air to enter the chamber above the furnace or can
55 be closed, as found desirable. The ducts extend downward, so as to avoid the stratum of air which flows along the outside of inclined walls I, and thus the entrance of dust is prevented to a considerable extent. 60

At the sides of the furnace and bottom of walls I large air-gates T are hinged. These air-gates T can be opened for the rapid cooling of the dry-house or can be closed as
65 needed. 65

The drying-rooms proper are above floor C, and the house may be divided into as many stories as desirable, two being shown.

The floor C is reached by ascending to a platform M outside the building in the form 70 illustrated, a suitable door permitting access to the story above floor C. The floor C' is reached from platform M'.

The fruit or other material to be dried is preferably placed in trays or drawers O in
75 such manner as to be readily accessible from the space left open at the central part of the building.

Preferably a chute P permits the emptying of trays into a wagon or receptacle outside
80 the house proper.

A ventilating-tower R over the central portion of the building is provided with shutters S, by which the egress of hot air from the
85 dry-house can be controlled. 85

The side walls of the building can be of boards or light metal or other building material, and any usual means may be employed to prevent heat radiation from the body of the dry-house. 90

The fruit, grain, or other material to be operated on is placed on trays O and a fire started in furnace D. Hot air from the furnace rises through the open-work floors and acts on the material in the trays O. The
95 temperature and quality of air can be largely controlled by means of the ducts, air-gates, and shutters described. If the furnace be

properly constructed, (preferably of brick or fire-brick,) the temperature can be maintained at almost any drying heat desired.

5 The furnace being open to the air can be readily inspected and the firemen are not subjected to intense heat, as would be the case were the furnace inclosed when the dry-house is built in tropical regions, for which it is peculiarly adapted.

10 The cost of construction of a house of this character is very moderate.

What I claim is—

1. A dry-house consisting essentially of a furnace, supporting-legs removed from said
15 furnace so that the sides of the furnace are open to the air, a smoke-flue leading from the top of the furnace and thence downward under ground, a chimney removed from the furnace to which the smoke-flue leads, in-
20 clined walls leading upward and outward from

the furnace, an open-work floor above said walls, and a dry-room above said floor.

2. The combination of a furnace, a chamber above said furnace having inclined side walls provided with downwardly - projecting air- 25 ducts, and valves controlling said ducts.

3. The combination of a furnace, inclined walls extending upward and outward from said furnace, air-ducts extending downward from said walls and valves at the lower ends 30 thereof, air-gates hinged to the walls at the sides of the furnace, and a drying-room above said chamber.

In testimony whereof I affix my signature in presence of two witnesses.

OTTO HEYNSOHN.

Witnesses:

W. A. BARTLETT,
M. E. BROWN.