

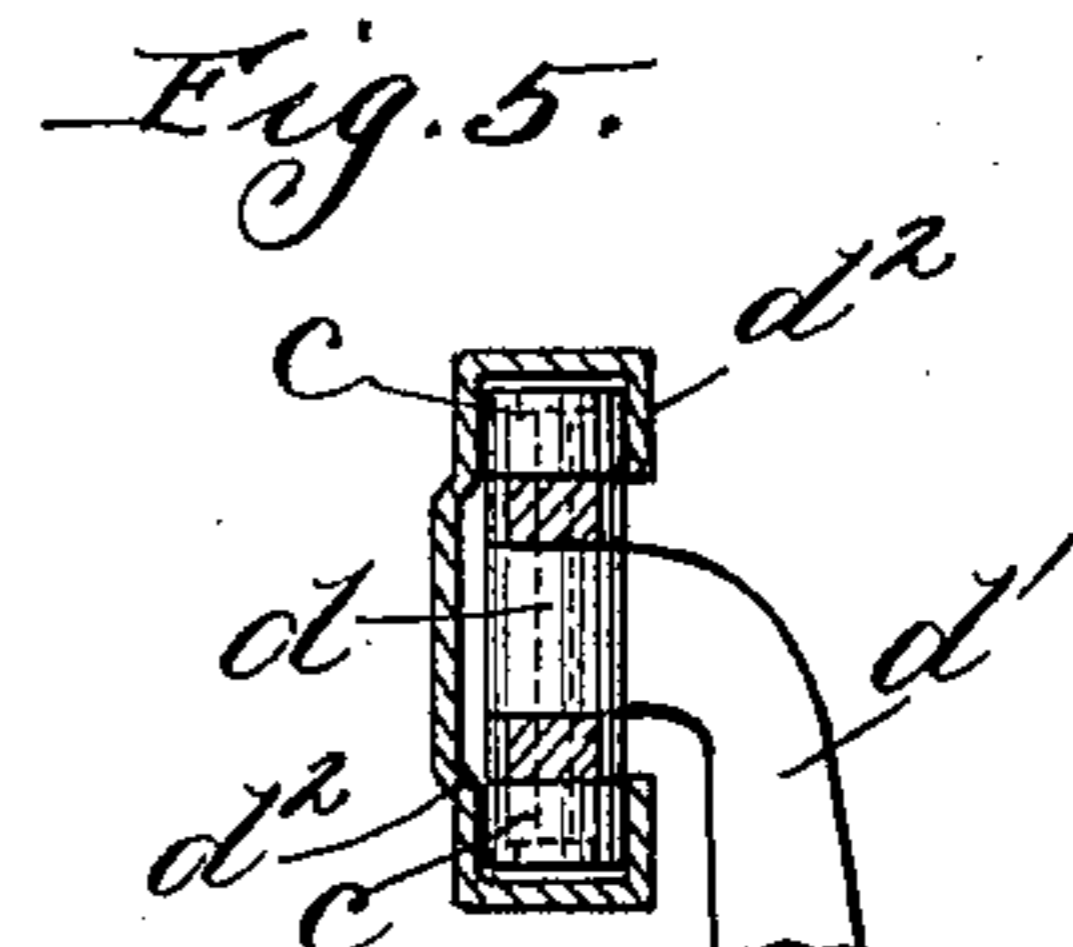
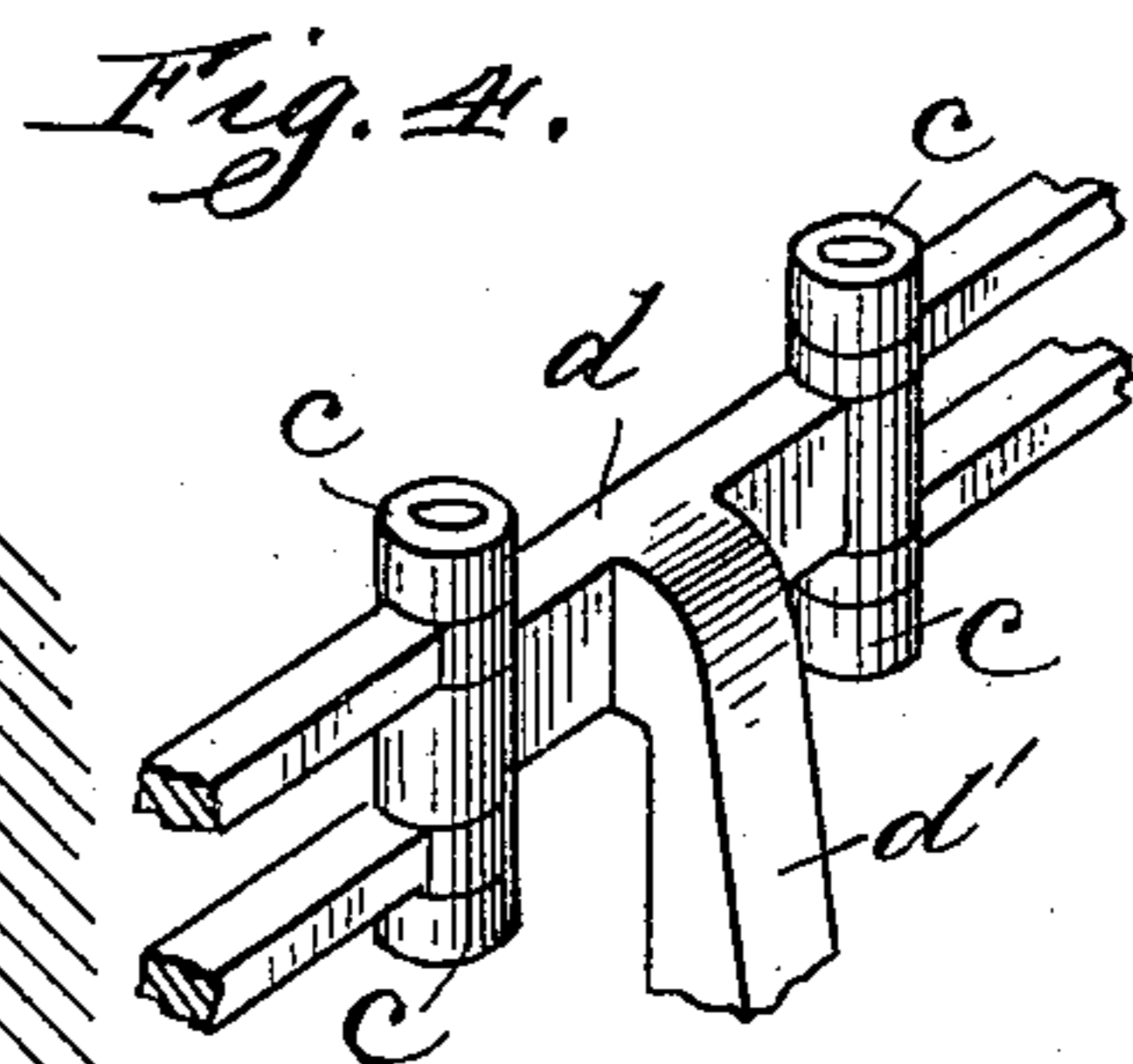
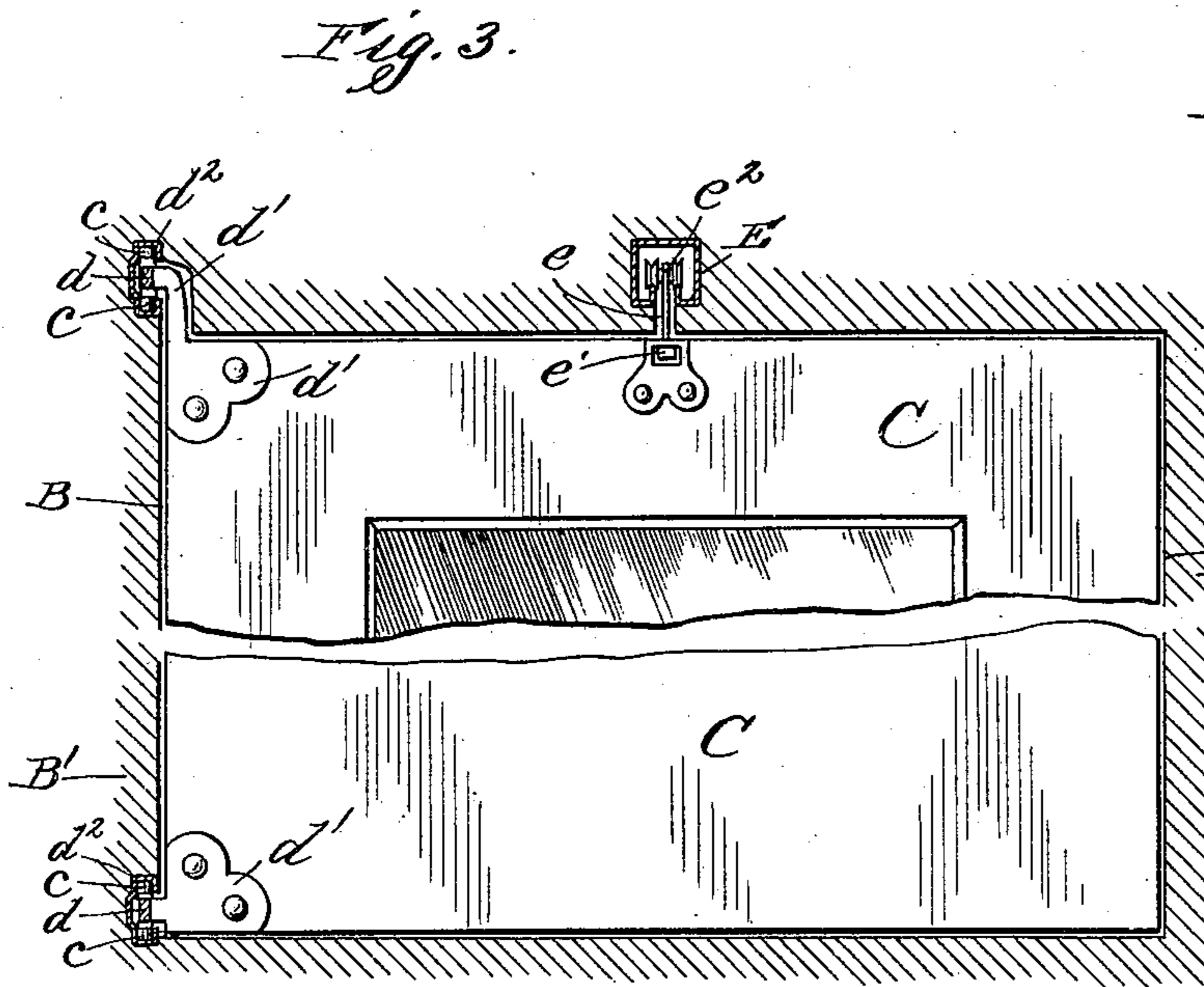
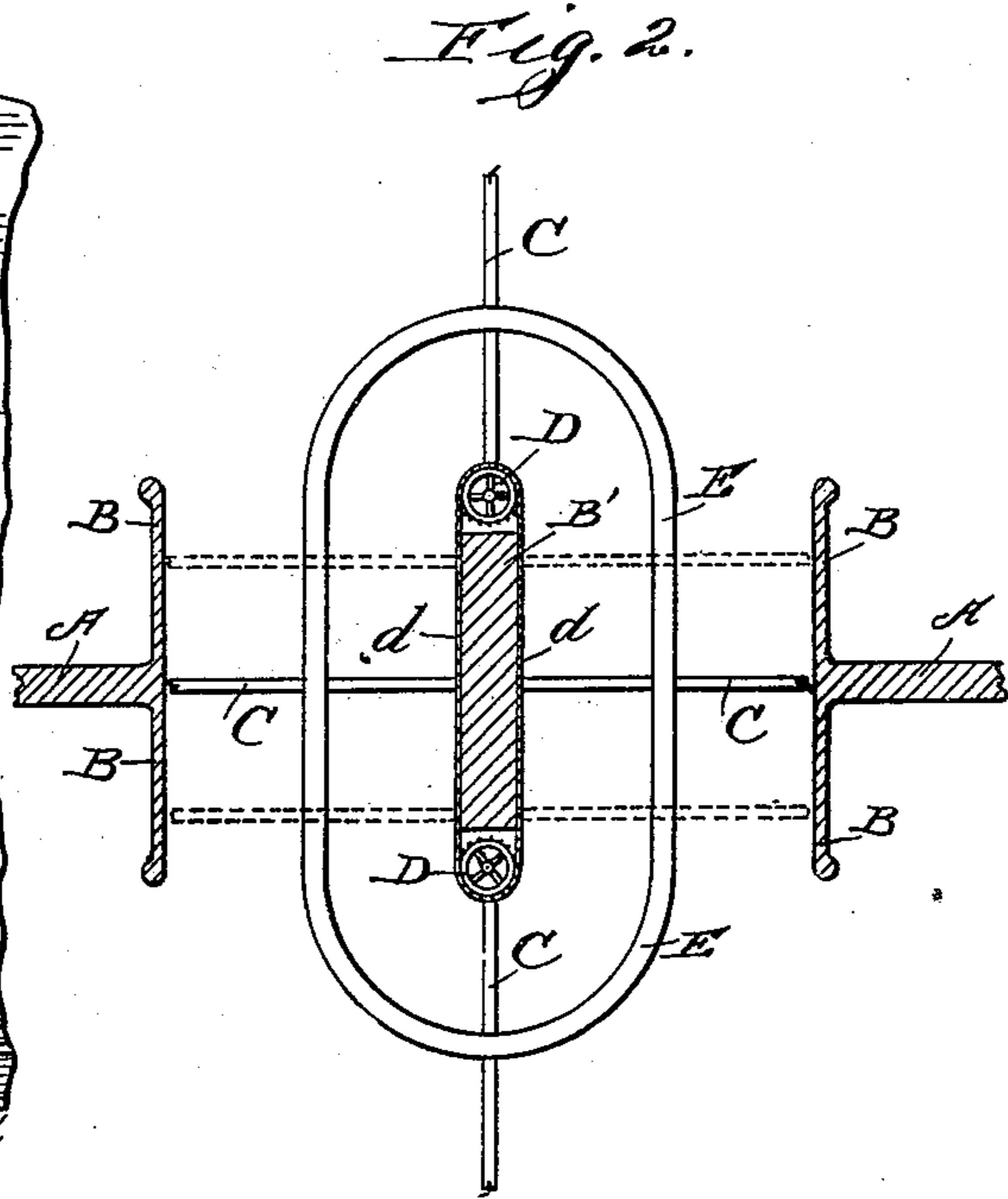
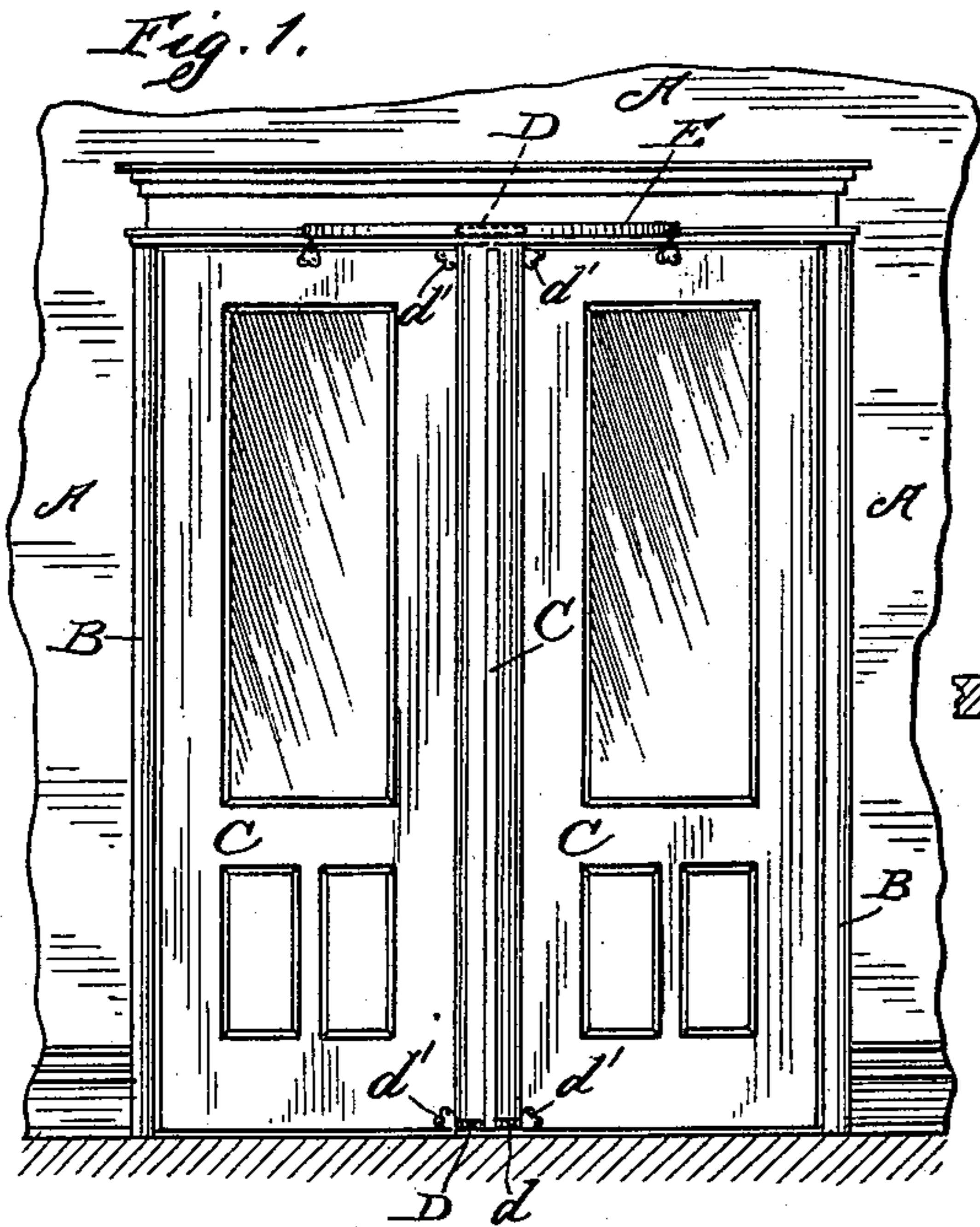
No. 619,674.

Patented Feb. 14, 1899.

O. COBB.  
STORM DOOR.

(Application filed Mar. 21, 1898.)

(No Model.)



Witnesses:

W. J. Jaeger.

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By

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# UNITED STATES PATENT OFFICE.

OSCAR COBB, OF CHICAGO, ILLINOIS.

## STORM-DOOR.

SPECIFICATION forming part of Letters Patent No. 619,674, dated February 14, 1899.

Application filed March 21, 1898. Serial No. 674,565. (No model.)

*To all whom it may concern:*

Be it known that I, OSCAR COBB, of Chicago, in the State of Illinois, have invented certain new and useful Improvements in Storm-Doors, of which the following is a specification.

This invention relates to storm-doors adapted to keep a passage-way constantly closed to drafts of air while permitting persons to pass through; and the object of the improvement is to provide efficient means for supporting a series of laterally-movable swinging doors in conjunction with the passage-opening having a casing whose sides are straight and parallel, as contradistinguished from a series of centrally-pivoted swinging doors in conjunction with a passage-opening having a casing with one or both sides made in the form of an arc.

I attain the object by the means illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation. Fig. 2 is a sectional plan. Fig. 3 is a sectional elevation; Fig. 4, a detail showing a fragment of a sprocket-chain with the door-hanger; and Fig. 5 is a detail showing an enlarged cross-section of the sprocket-chain near the door-hanger, together with the way for supporting the chain at the points between the sprocket-wheels.

In the drawings, A is the wall or partition through which the passage-way is made.

B is the casing, which comprises top, bottom, and side piece of sufficient width to allow a person to move freely therein when the casing is closed by a door before him and one behind him.

B' is a central piece which divides the way vertically, forming two ways for passage in opposite direction.

C C are the doors.

At the top and bottom of the central piece B' are journaled sprocket-wheels D, which carry belt sprocket-chains *d*. Hangers *d'* are formed on the sprocket-chain and adapted to be attached to the doors for securing the doors to the chain belts. I prefer to use suitable guides *d''*, supported on the central piece B' along the space between the sprocket-wheels for the chains to work in, and at points

along on the chain small rollers *c* should be provided for avoiding friction of the chains in the guides. A trolley-way E is arranged above the doors over a slot *e* in the top piece of the door-casing B, through which one or more hangers *e'*, suspended from a trolley-truck *e''*, having wheels adapted to run upon the trolley-way, are employed in connection with each of the doors to support the door centrally upon the trolley-way, so that little, if any, weight of the door will come upon the chain belts, the principal function of which is to support the doors in their lateral position and relation.

The normal position of the doors relative to the passage-way is shown by the full lines in Fig. 2, the dotted lines indicating their change of position in operation. Two of the opposite doors close the double passage-way in line with the wall or partition A, the other two being extended in line with the central piece B'. All of the doors are so suspended on the trolley-way and connected by the sprocket-chains that a slight push given to any one of them will impart a uniform advance lateral movement to them all and a combined lateral and swinging or revolving movement to those passing on the sprocket-wheels, bringing them into parallel relation with those that are on the chain between the sprocket-wheels. The space between the doors when brought into parallel relation is just sufficient to allow free movement of the person in walking through the passage-way and pushing the door immediately before him.

What I claim is—

1. The combination with the passage-way casing having parallel sides of a series of doors mounted upon chain belts and trolley-way and having the relation with one another and the casing substantially as specified.

2. The combination with the passage-way of the sprocket-wheels and chain belts, the trolley-way and the doors, all arranged and connected substantially as specified.

OSCAR COBB.

Witnesses:

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