

C. C. BURRITT.

DOOR STOP.

(Application filed Nov. 26, 1901.)

(No Model.)

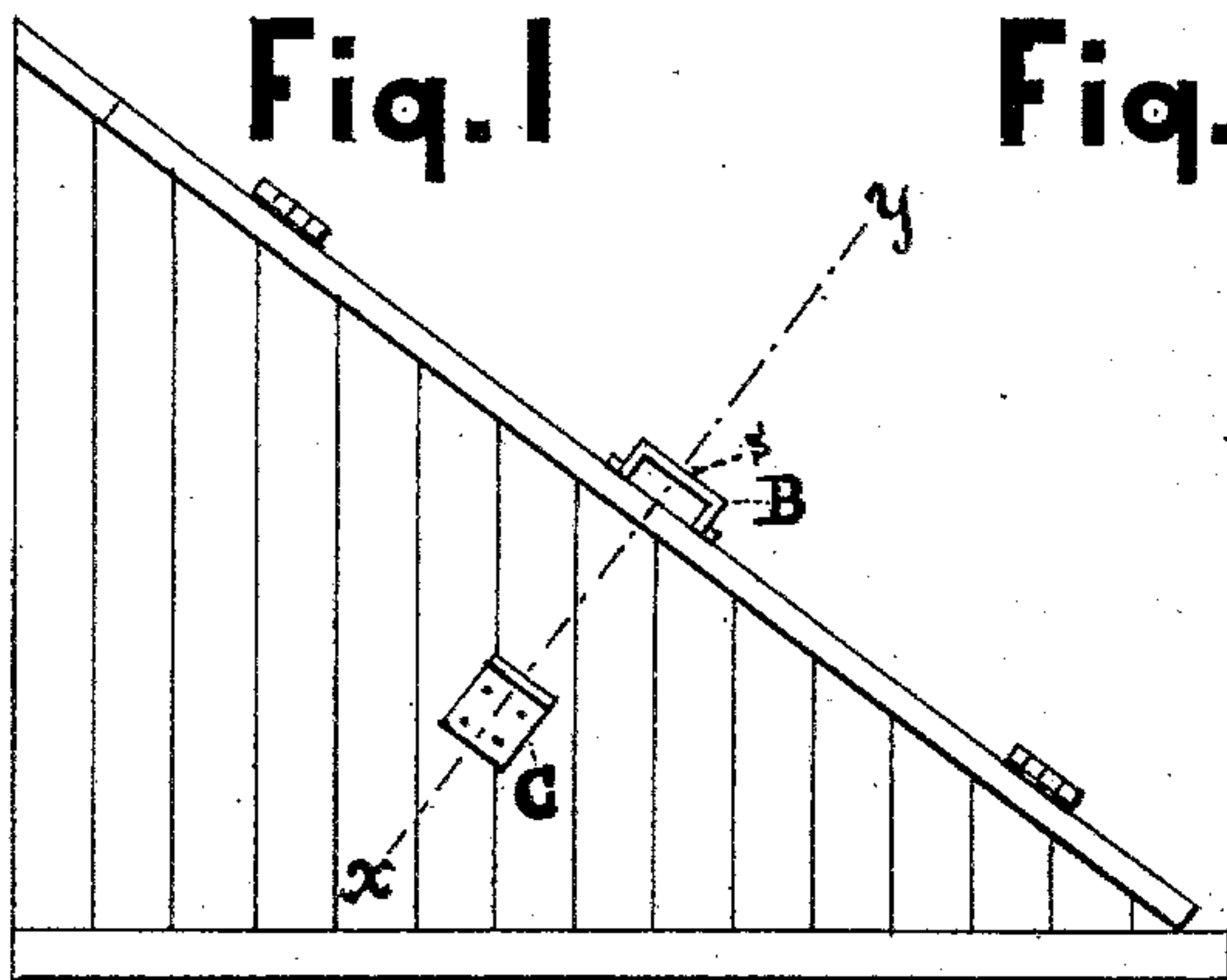


Fig. 2

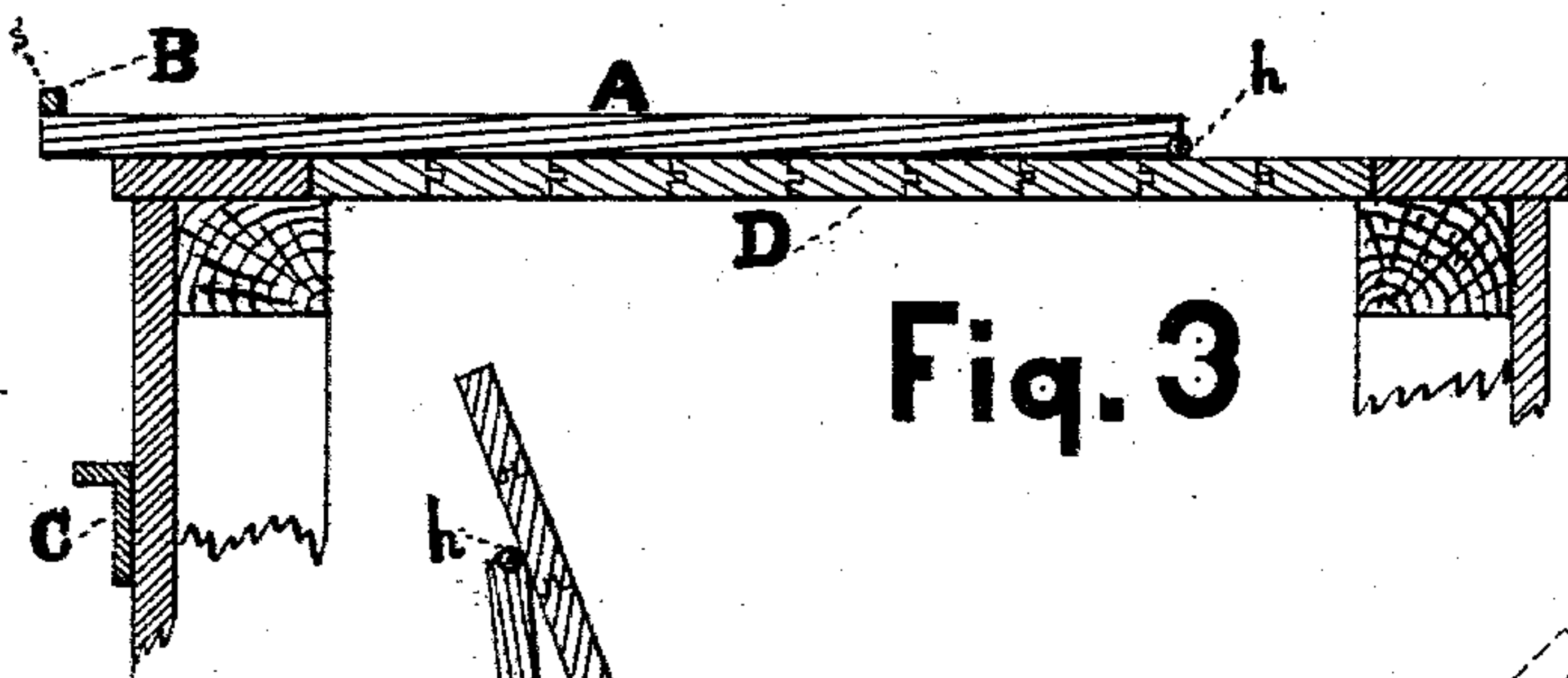
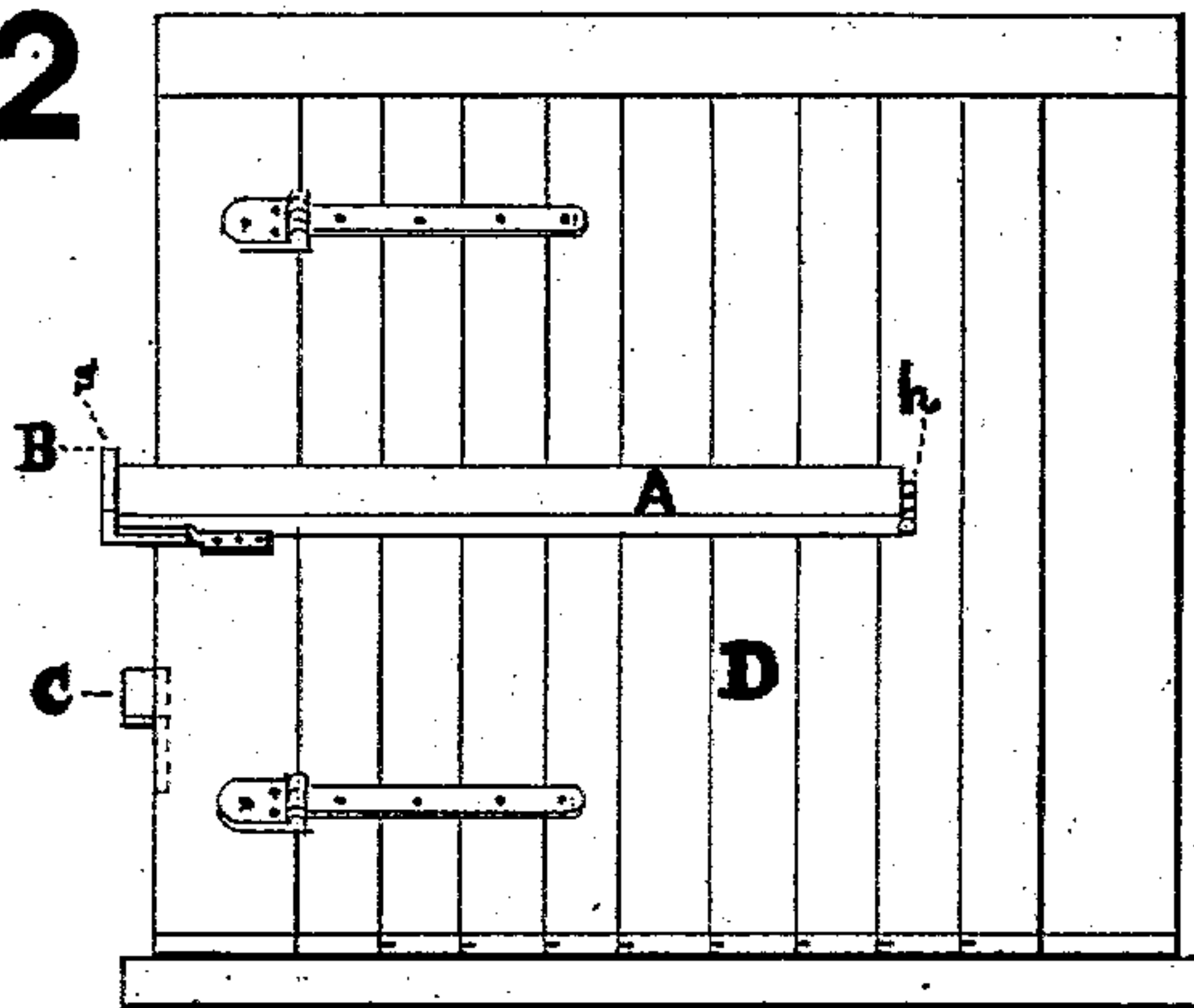


Fig. 3

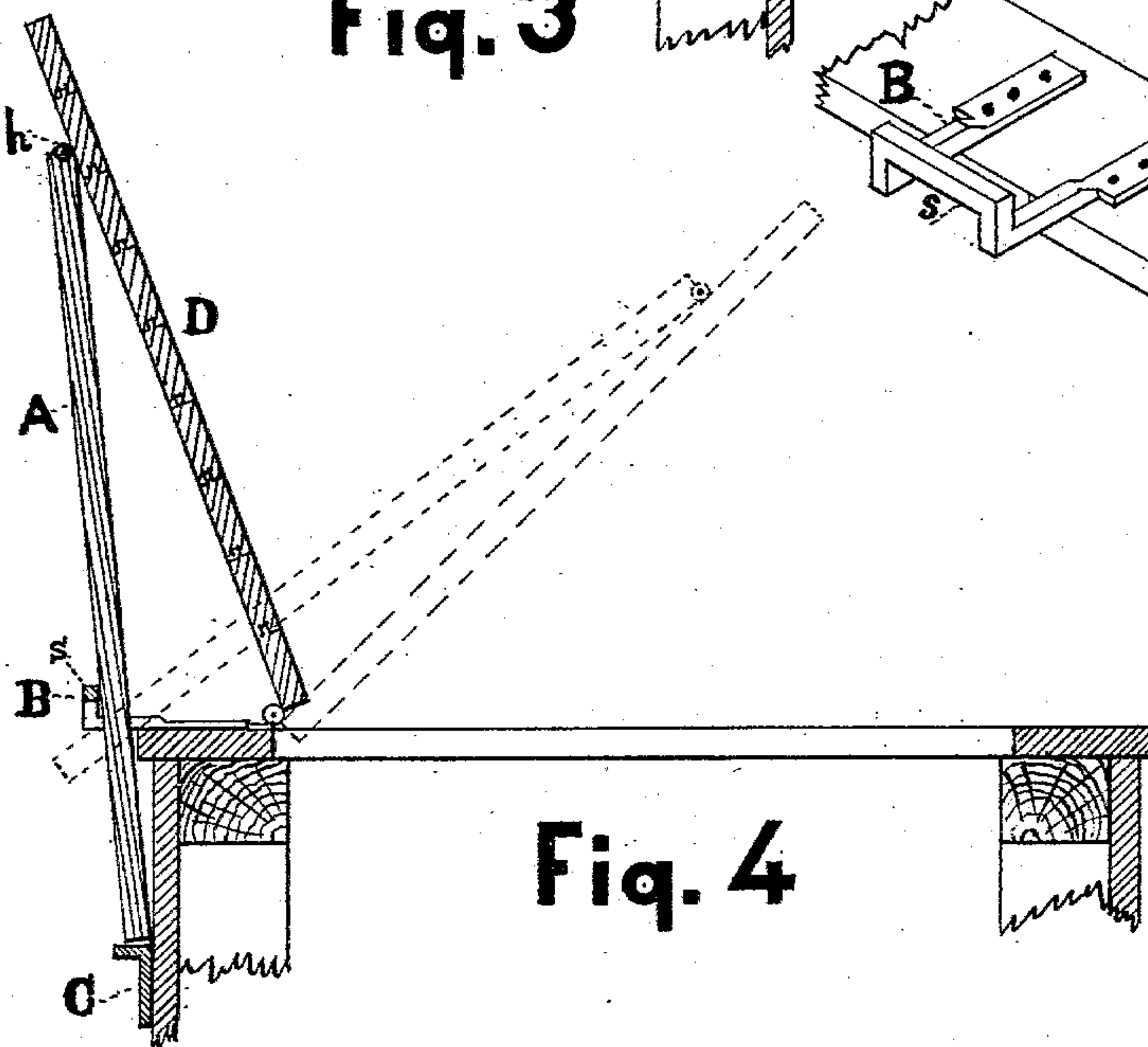


Fig. 4

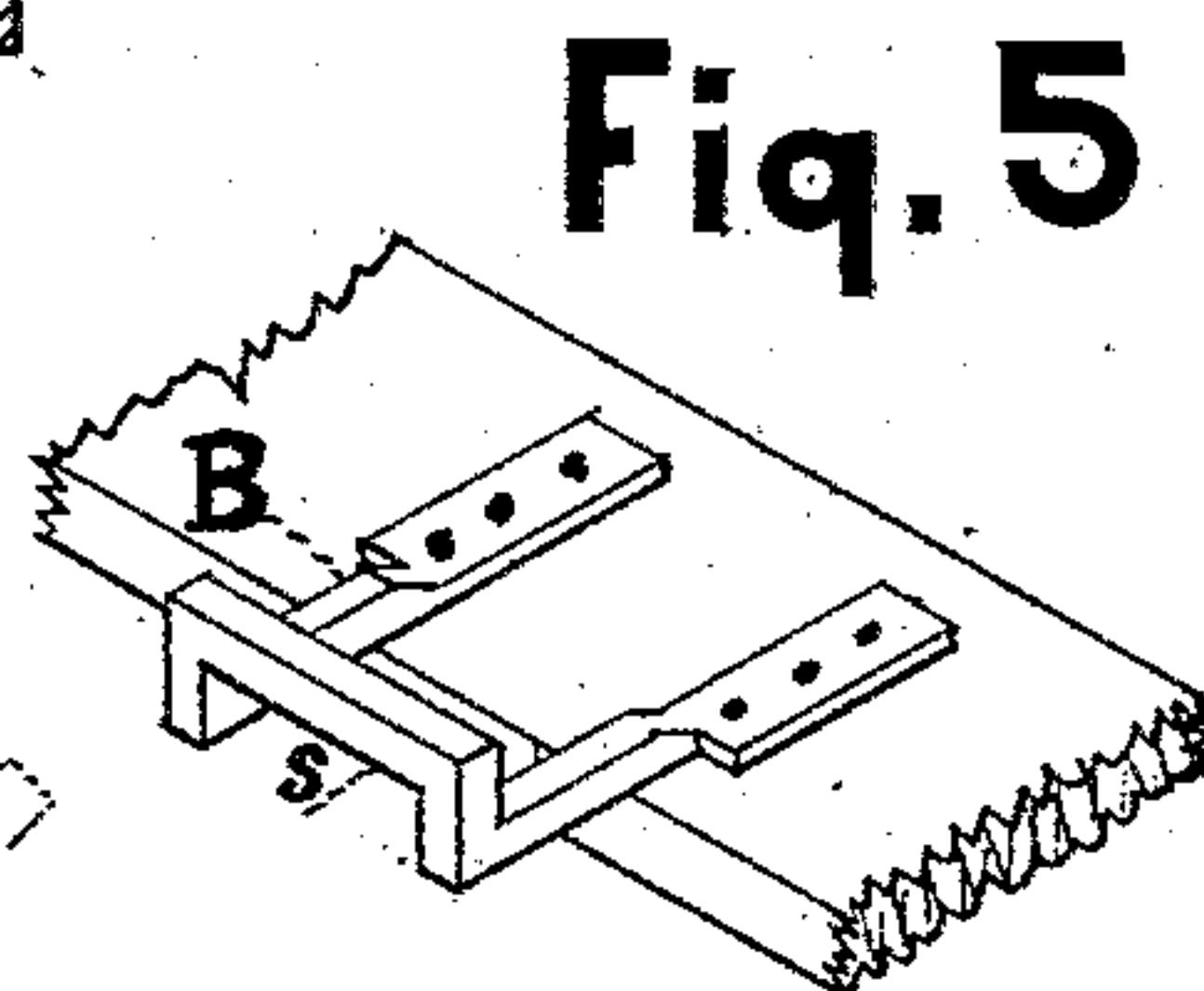


Fig. 5

WITNESSES,

Leslie A. Barick
John H. Logan

INVENTOR

Chester Crawford Burritt

UNITED STATES PATENT OFFICE.

CHESTER CRAWFORD BURRITT, OF BAYONNE, NEW JERSEY.

DOOR-STOP.

SPECIFICATION forming part of Letters Patent No. 704,855, dated July 15, 1902.

Application filed November 26, 1901. Serial No. 83,806. (No model.)

To all whom it may concern:

Be it known that I, CHESTER CRAWFORD BURRITT, a citizen of the United States, and a resident of the city of Bayonne, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Door-Stops, as described and set forth in the following specification and accompanying drawings.

My invention consists of an attachment which forms a combined stop and support for doors not hung vertically and a stop only for vertically-hung doors. It is particularly adapted to the class of doors commonly used to inclose outside entrances to cellars of suburban dwellings, and for the purpose of illustrating its combined features of stop and support the drawings and this specification will consider the device in connection with such a door; but it is to be understood that its applicability is not limited to doors of that exact type, the device being susceptible of modification to suit all classes of doors without destroying its essential features or interfering with the performance of its combined functions of stop and support for doors not hung vertically or its single function of stop for vertically-hung doors, shutters, gates, &c.

The objects of my invention are, first, to prevent doors to which it is applied from opening to the full extent of the action of their hinges; second, to support doors not vertically hung when open in a position convenient to the hand for closing, and, third, to accomplish these results by means of a device or attachment operating automatically with the movement of the door and contained wholly upon and within the door and the door-frame structure.

In the drawings, Figures 1 and 2 are respectively end and front elevations of an ordinary outside cellar-door and frame structure with door closed and device attached. Fig. 3 is an enlarged sectional view through xy , Fig. 1. Fig. 4 is a like sectional view showing the door open and the device performing its combined functions of stop and support. Fig. 5 is an enlarged perspective view of the guide B, hereinafter referred to.

My invention consists of three component elements—viz., a hinged or swinging bar, a guide, and a stop. These elements may form

separate individual parts, as shown in the drawings, or two or all of them may be combined in one connected whole, as hereinafter described.

The bar A, Fig. 2, is made fast by its hinge to the door D at a point between its opening edge and longitudinal center and about midway between its top and bottom edges, with the sides of the bar at right angles to and its free end overlapping the hinged edge of the door and projecting beyond the door-casing a distance greater than the thickness of the bar. The guide B, Figs. 1, 2, and 5, is placed astride the bar A, with its arms loosely embracing the sides and its cross-piece S passing over and in close contact with the upper surface of the free end of the bar and with the inner face of the cross-piece S distant from the edge of the door-casing a space slightly greater than the thickness of the bar, and is made fast to the casing. The stop C, Fig. 1, is made fast to the side of the door-frame structure at a point on a line drawn at right angles with the surface of the door-casing and through a point midway between the arms of the guide B, as at xy , Fig. 1, and with the upper surface or face of the stop parallel with and distant from the surface of the casing a space a little greater than the distance between the hinged edge of the door and the free end of the bar A, Fig. 4.

The automatic operation of the device is shown in Fig. 4. The act of opening the door causes hinged end of bar A to move with door at a fixed distance from door's hinged edge. The length of the bar A being greater than distance between its hinged end and the hinged edge of the door, the free end of bar is pushed in direction of its length forward and downward over edge of casing between arms and under cross-piece S of guide or bail B, describing a line of rapidly-decreasing curvature in the direction of the stop C. The dotted lines show relative positions of door and bar with door opened part way. As opening movement of door progresses bar continues to rest upon and slide over edge of casing until bar has assumed a position perpendicular to face of casing. As the opening movement continues beyond this point the bar swings free from edge of casing, but is stopped from swinging outward by the cross-

piece S of the guide B, which engages with the bar and guides its free end to the stop C, on which it comes to rest, and movement of door ceases.

5 Fig. 4 shows door open as wide as is contemplated in the preferred application of my invention to doors not hung vertically; but the opening angle may be increased, if desired, by increasing the projection of the end
10 of the bar A and cross-piece S of guide B beyond the casing and the distance of the stop C from the surface of the casing.

Applied to doors not hung vertically, my invention reduces strain on door-hinges and
15 frame to a minimum by bringing door to a stop at a point in its path where its center of gravity has passed the line of its hinges far enough to cause it to remain open by its own weight under ordinary conditions, but not
20 far enough to admit of the door gathering any appreciable impetus if allowed to fall from a vertical position. Applied to vertically-hung doors, shutters, gates, &c., it forms a self-acting stop.

25 The three component elements of my device may, as hereinbefore stated, form separate and individual parts to be used in combination with each other, as shown in the drawings, or two or all of them may be com-
30 bined in one connected whole. The device may be constructed of wood or of metal or of wood and metal. It may vary in form from that shown in the drawings and be applied to the door and its frame in various
35 ways and still retain its distinctive features.

The essence of my invention is a bar with a hinge or its equivalent at one end. The guide and stop here shown are simply auxil-

iary to the bar and not absolutely essential as individual parts to the proper operation
40 of the device under all conditions. For example, the hinged end of the bar may be made fast to the casing on the hinge side of the door, with the free end working against
45 a stop made fast to the door itself, the surface of the door performing the function of guide, or the bar may consist of two parts sliding telescopically one upon or within the
50 other, one part being hinged to the door and the other to the casing, thus forming within itself a bar, guide, and stop combined.

The essential feature in in all forms of my device is a bar so hinged to the door or its casing or frame structure as to overlap the
55 hinged edge of the door, leaving one end free to move with and be moved by the door. These variations in form are contemplated in my invention to suit varying conditions, the preferred form for ordinary outside cellar-
60 doors being as shown in the drawings.

What I claim as my invention, and desire to secure by Letters Patent, is—

A door and a bar hinged at one end directly to the door and free at the other, with a guide-
65 loop and a stop against which the bar strikes so as to rest thereon freely or without becoming attached so that the door can be closed without the bar having to be first disengaged from any holding device.

Signed at Bayonne, in the county of Hud-
70 son and State of New Jersey, this 20th day of November, 1901.

CHESTER CRAWFORD BURRITT.

Witnesses:

LESLIE A. BURRITT,
JOHN W. LOGAN.