

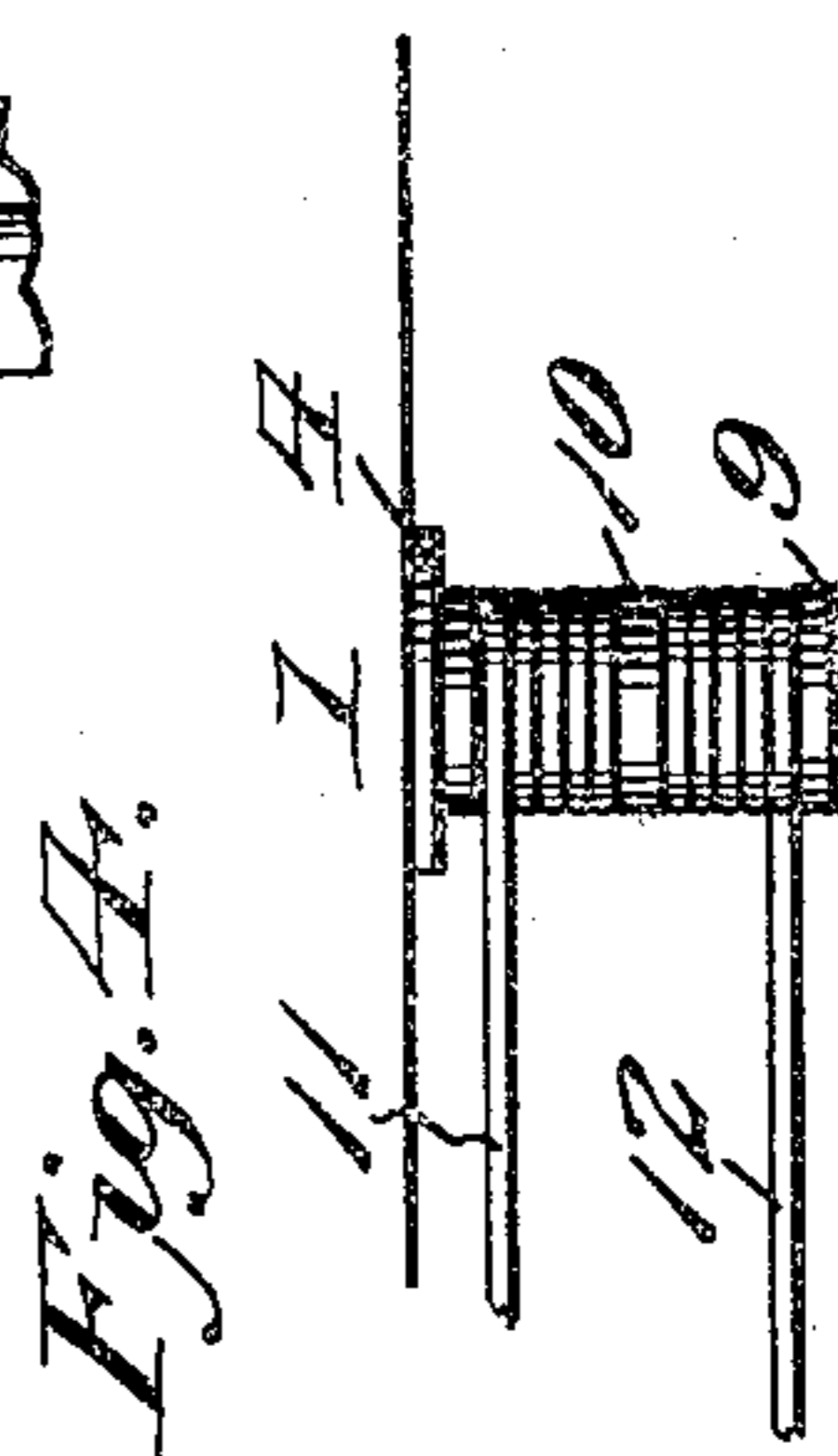
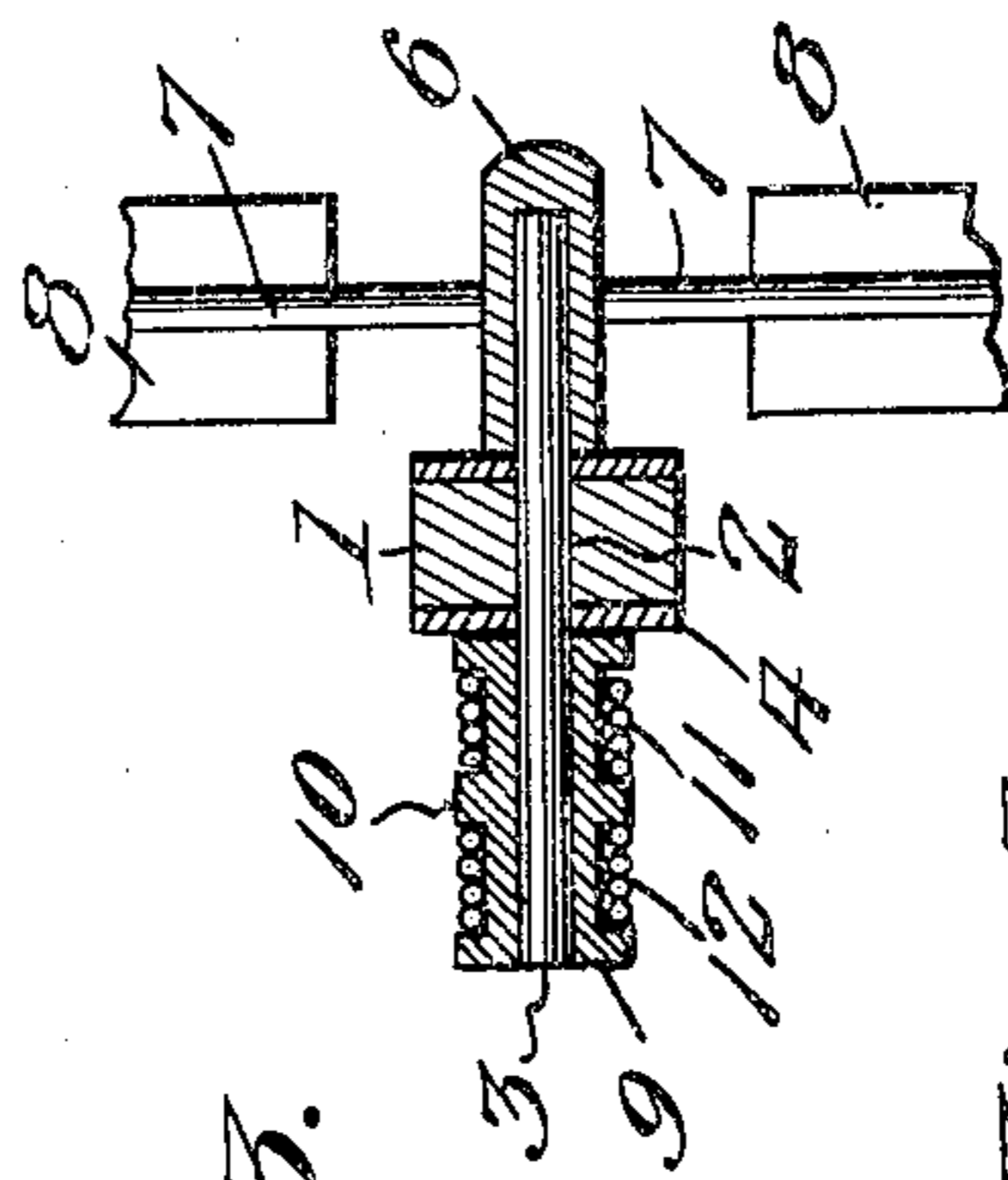
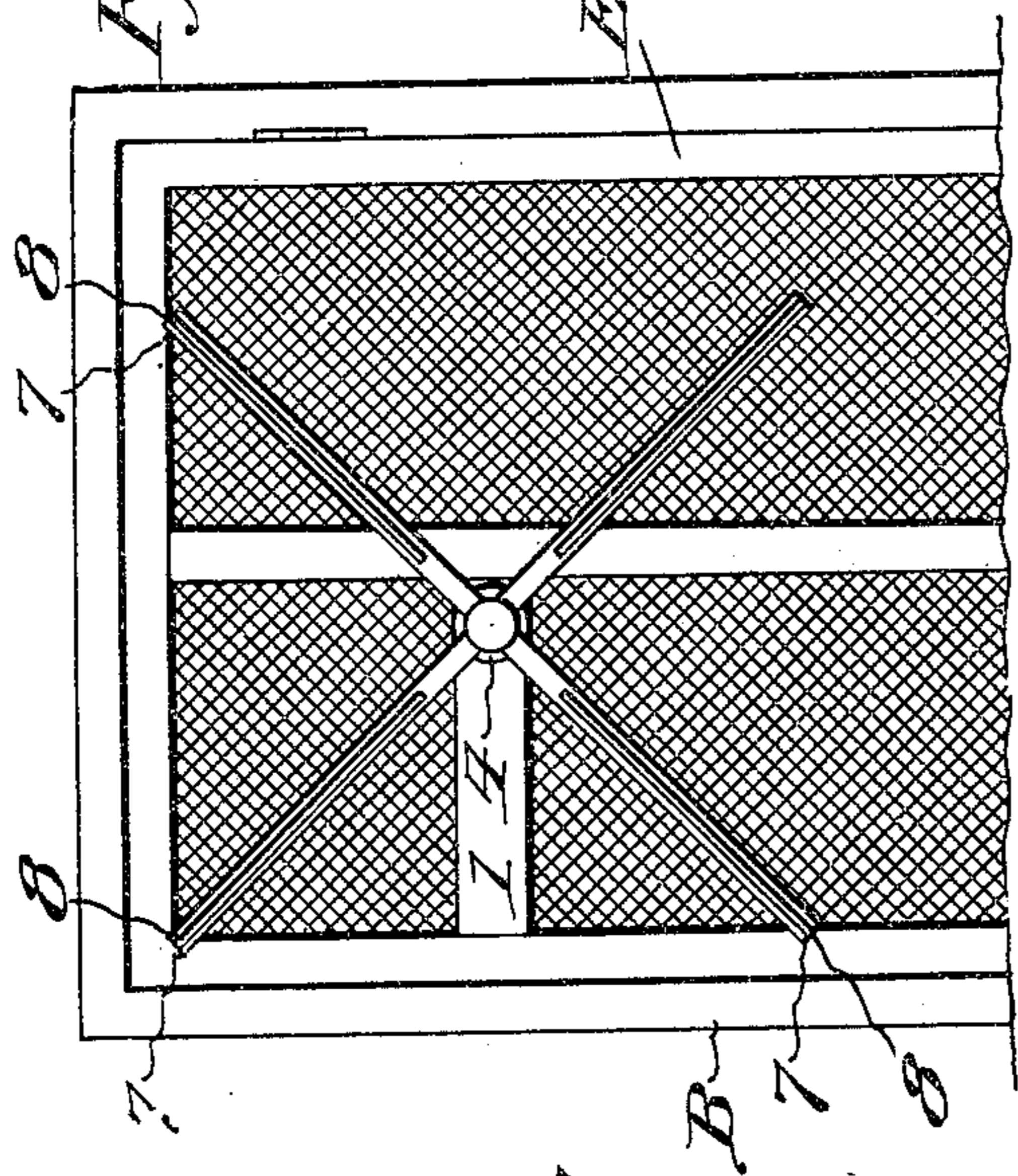
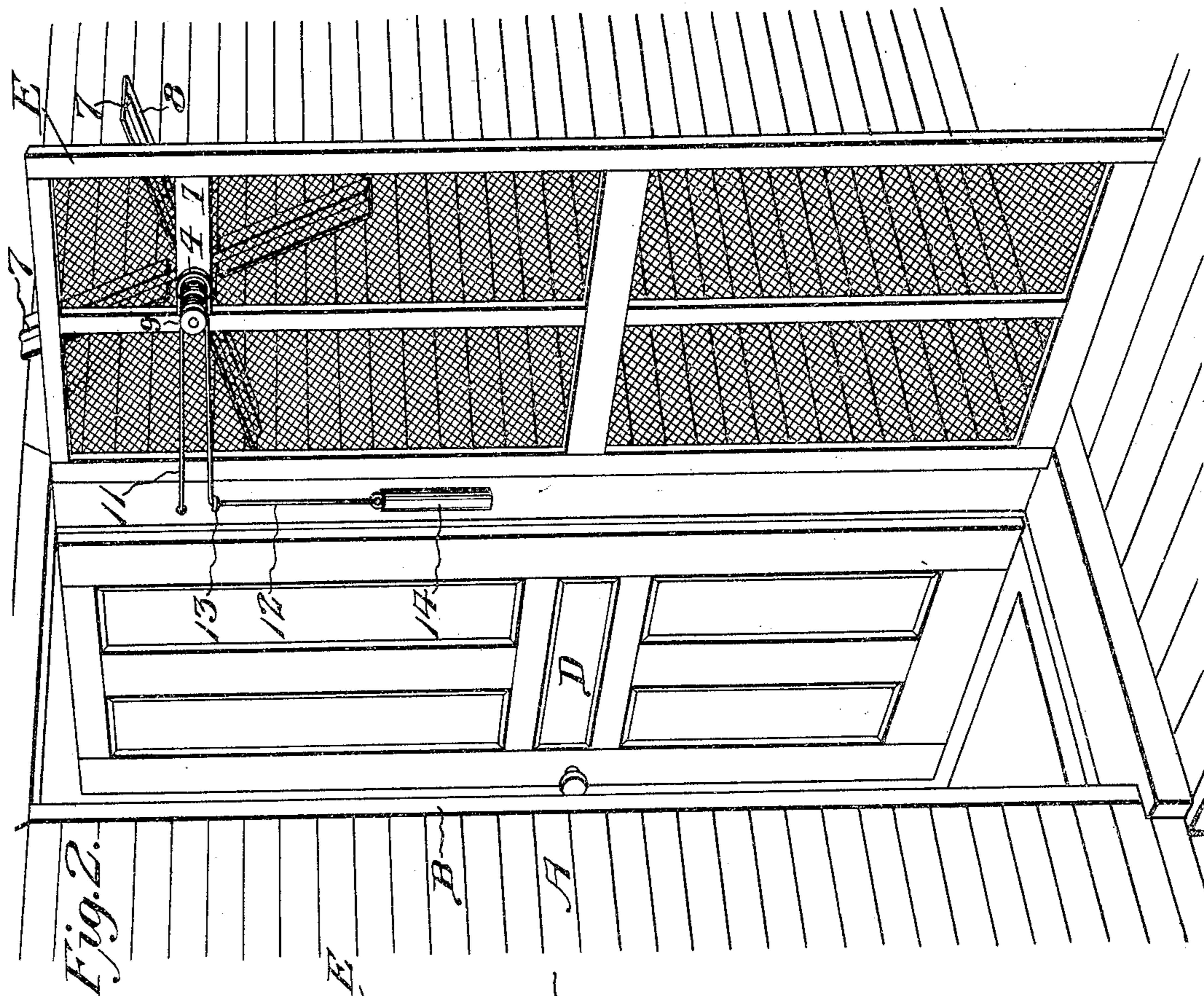
No. 793,641.

PATENTED JULY 4, 1905.

B. DODD.

COMBINED DOOR CLOSER AND FLY CHASER.

APPLICATION FILED JULY 1, 1904.



Witnesses

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Fig. 1

By

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BARNETT DODD, OF BOULDER, COLORADO.

COMBINED DOOR-CLOSER AND FLY-CHASER.

SPECIFICATION forming part of Letters Patent No. 793,641, dated July 4, 1905.

Application filed July 1, 1904. Serial No. 214,976.

To all whom it may concern:

Be it known that I, BARNETT DODD, a citizen of the United States, residing at Boulder, in the county of Boulder and State of Colorado, have invented new and useful Improvements in a Combined Door-Closer and Fly-Chaser, of which the following is a specification.

My invention relates to improvements in a combined door-closer and fly-chaser; and the object is to simplify and improve the existing construction by providing a mechanism or device adapted to accomplish the combined functions stated which is simple in construction, efficient in accomplishing the purposes, and durable in the uses to which it is put.

With these objects in view the invention consists in the novel construction of parts and their aggroupment in operative combinations, all as will be hereinafter fully specified and the asserted novelty then particularly pointed out and distinctly claimed.

The improvements have been fully and clearly illustrated in the annexed drawings, to be taken as a part of this specification, and wherein—

Figure 1 is a view in elevation of a door-frame and a screen-door disposed therein and in which are mounted the vanes of the rotatable fly-chaser. Fig. 2 is a perspective view of a portion of a building having a door-frame erected therein, a door disposed in the frame, and a screen-door hinged to the door-frame, and my improved fly-chaser operatively positioned in the screen-door. Fig. 3 is a detail longitudinal section through the spools and the hub of the vanes, showing them as mounted on the rotatable shaft. Fig. 4 is a detail plan view of the spools with the actuating-cords arranged thereon.

In the drawings the same parts appearing in different figures are denoted by similar reference notations, and referring to the drawings, A designates the vertical side of a portion of a building, B is a door-frame positioned in the building, and C is a door of the usual construction or make hinged to the frame in the usual well-known manner.

E designates a screen-door of the usual con-

struction hinged to the door-frame, as usual, to swing outward. Between the outer post of the door and the vertical central strip, near the upper rail of the door, is firmly secured a cross-piece 1, in which is made a suitable bearing 2, wherein is journaled a shaft 3, projecting on each side of the cross-piece, as seen in Fig. 3 of the drawings. To protect the surface of the cross-piece 1 against abrasion by the rotatable parts, wearing-plates of suitable metal are secured to the sides of the cross-piece, as 4. These plates also make the bearing of the shaft more secure and reliable. On the outer projecting part of the shaft 3 is fixedly mounted a hub 6, formed or provided with radial arms 7 centrally slit, and in the slits are secured vanes 8, made of any suitable material. On the inner projecting portion of the shaft 3 is fixedly mounted a spool 9, having its winding-surface divided by an annular rib or collar 10, so that the winding-ropes will not become confused with each other when operating the device. To the inner section of the winding-spool is attached one end of a cord 11, and the cord is carried from the spool in a horizontal line and has its other end fixed to the hinge-stile of the door-frame, as seen in the drawings in Fig. 2. To the outer section of the spool is secured a cord 12, which is wound thereon in the opposite direction to that of the cord 11, leaving the spool from the under side, as indicated. Thence the cord 12 is carried horizontally and through a staple 13 or over a small pulley, with its free end depending, and attached thereto is a weight 14, which rotates the spool with the vanes on closing the door.

It will now be readily seen that when the door is opened the cord 11 will unwind from its spool and rotate the vanes, and the cord 12, with the weight, will be wound up on its spool, so that when the door is closed the weight will be brought into requisition, and dropping or descending the cord 11 will be wound up on its part of the spool and the cord 12 will unwind from its part of the spool, and the vanes will rotate in reverse direction to that when the weight was wound up.

It is apparent that the means for actuating

the device may consist of a retractile coil-spring connected to the cord 12 instead of the weight.

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

1. The combination with a door and a door-frame, of a shaft journaled in the door and projecting on both sides thereof, a vaned wheel fixedly mounted on the outer projecting portion of the shaft, a winding-spool mounted on the inner projecting portion of the shaft and having a central annular collar dividing the winding-surface into two sections, a cord having one end fastened to the door-frame and wound on one section of the spool, and a weighted cord wound on the other section of the spool in contrary direction to the first-mentioned cord.

2. The combination with a door and a door-frame, of a cross-piece secured in the door, a shaft journaled therein and projecting on both sides thereof, wearing-plates on both sides of the cross-piece, a vaned wheel fixedly mounted on the outer projecting portion of the shaft, a winding-spool fixedly mounted on the inner projecting portion of the shaft and having two winding-surfaces, a cord having one end se-

cured to the door-frame and wound on one of the winding-surfaces of the spool, a cord wound on the other winding-surface of the spool and passing through a guide on the door-frame, and a weight fastened to the free end of the cord.

3. The combination with a door and its frame, of a cross-piece secured in the door, a shaft journaled in the cross-piece and projecting on both sides of the door, a vaned wheel mounted on the shaft at the outer face of the door, a winding-spool mounted on the inner projecting portion of the shaft and having a central annular collar dividing the winding-surface into two sections, a cord wound on one section of the spool and having one of its ends fastened to the door-frame, a second cord wound in contrary direction of the other section of the spool, and yielding means connected to the free end of the second cord to wind up the first cord when unwound by the door being opened.

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

BARNETT DODD.

Witnesses:

O. A. JOHNSON,
A. E. COLLINS.