

No. 696,783.

Patented Apr. 1, 1902.

H. T. WRIGHT.
WINDOW SCREEN.

(Application filed July 6, 1901.)

(No Model.)

Fig. 1.

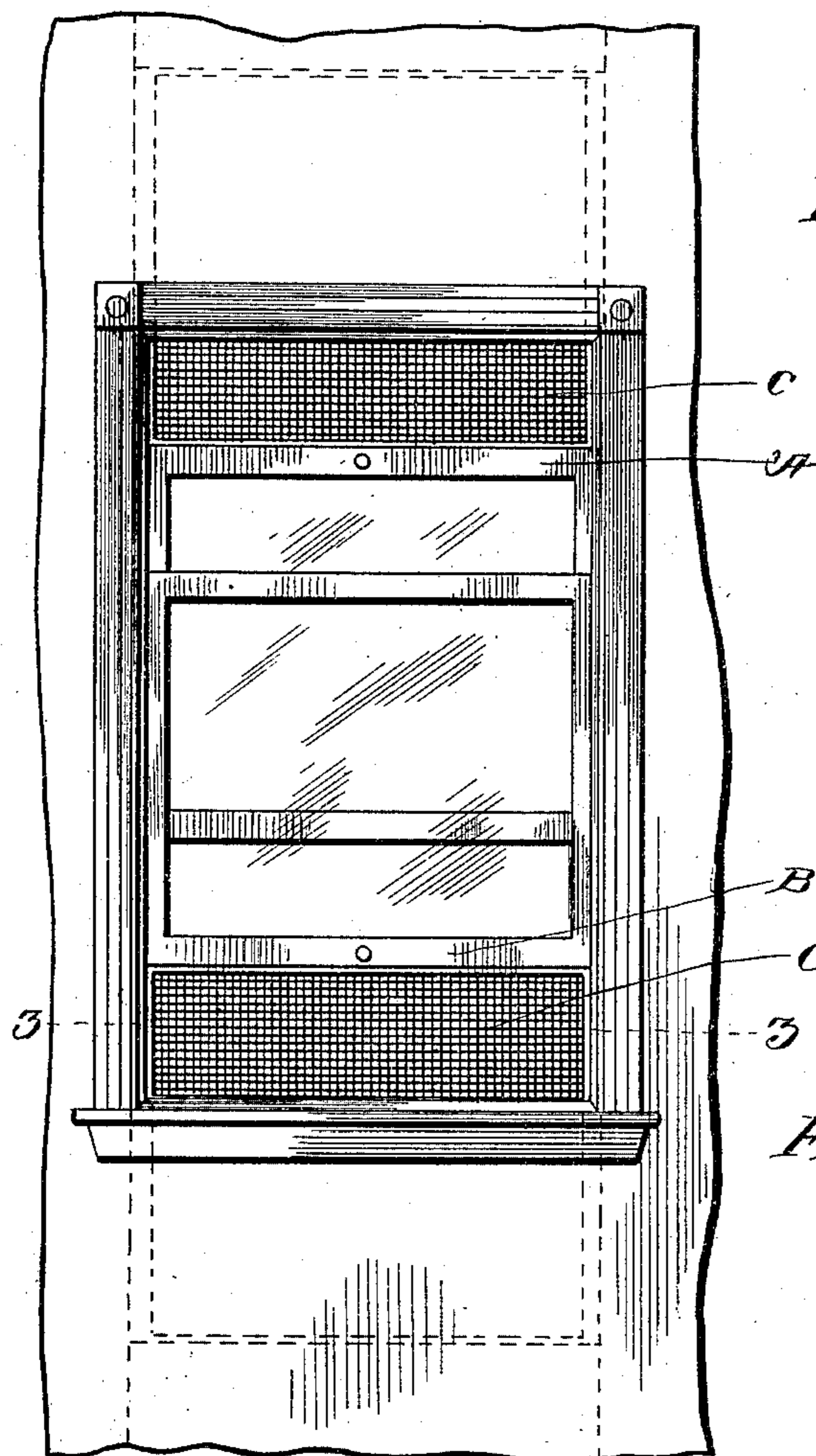


Fig. 2.

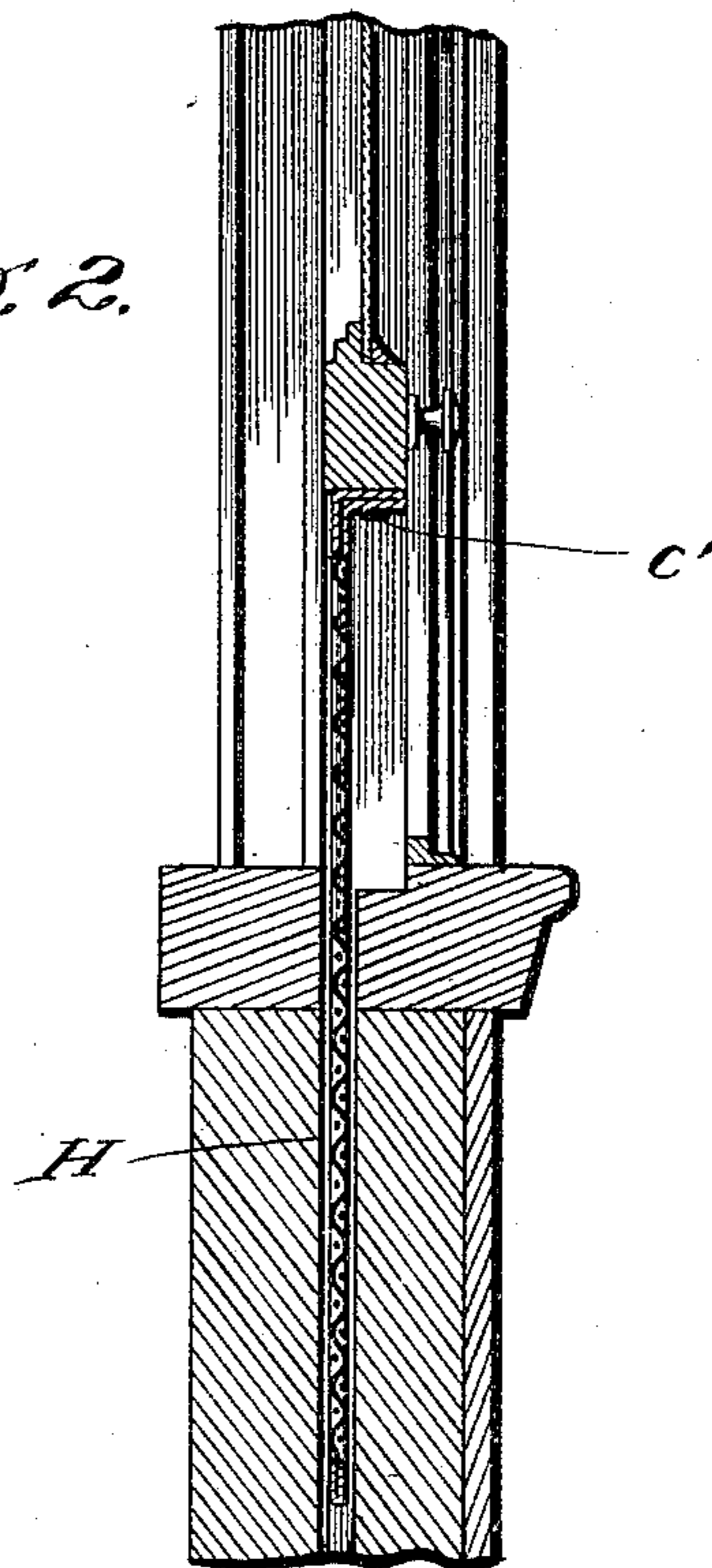


Fig. 3.

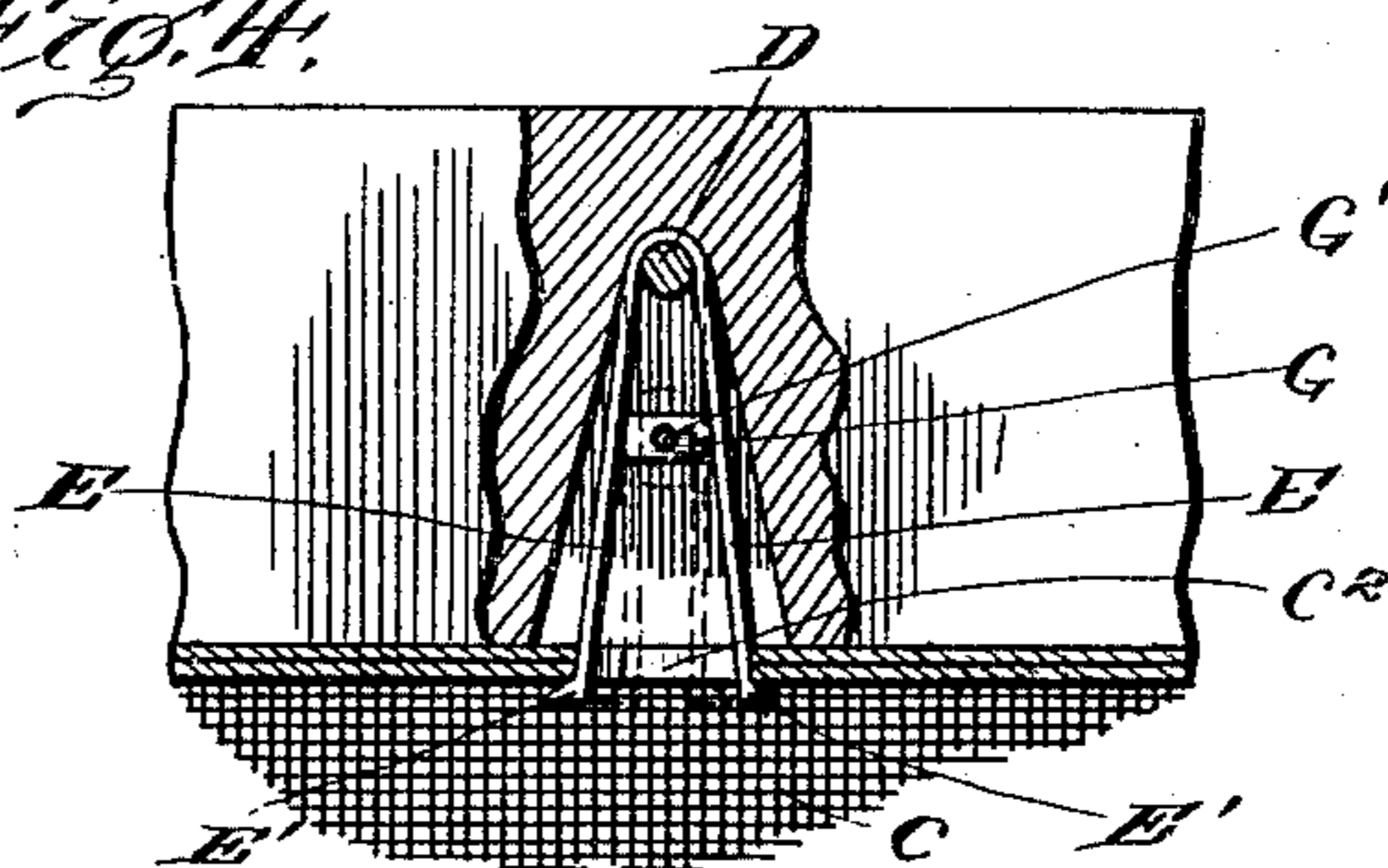


Fig. 4.

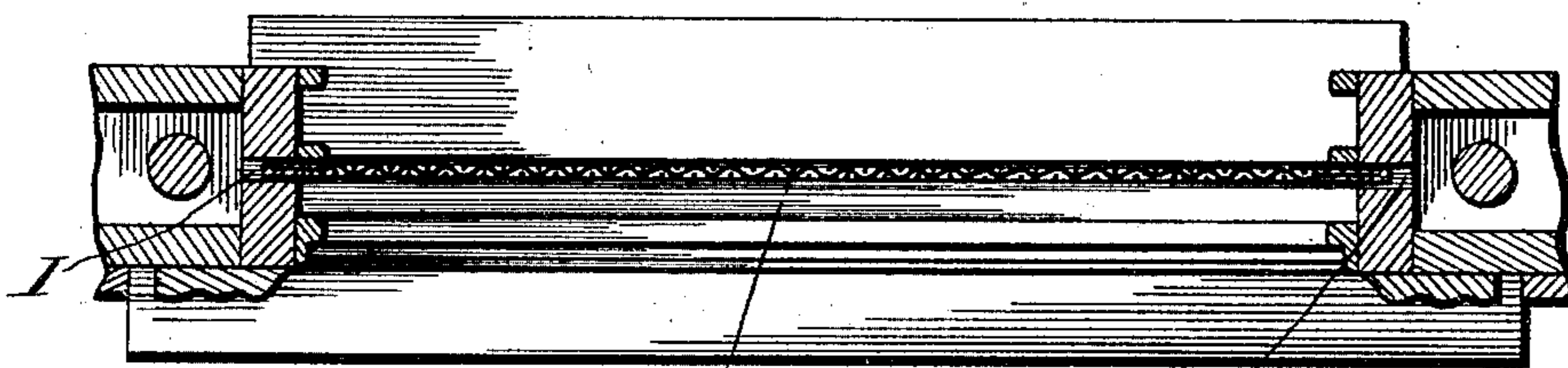
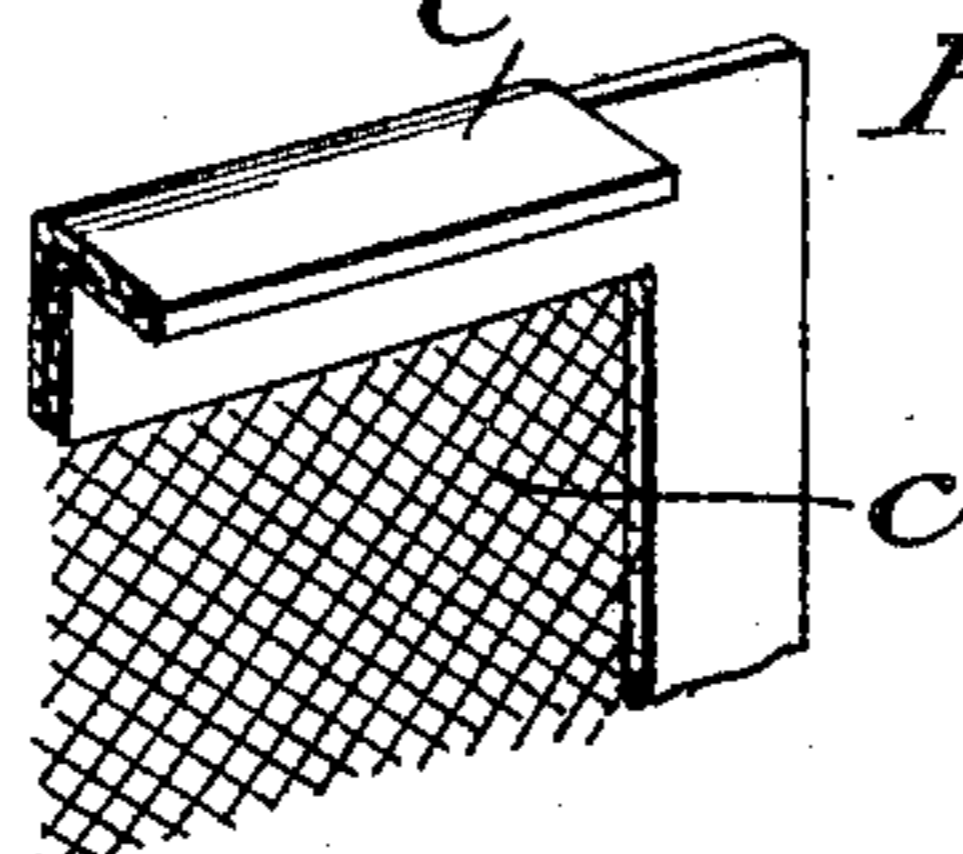


Fig. 5.



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UNITED STATES PATENT OFFICE.

HENRY T. WRIGHT, OF PHILADELPHIA, PENNSYLVANIA.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 696,783, dated April 1, 1902.

Application filed July 6, 1901. Serial No. 67,342. (No model.)

To all whom it may concern:

Be it known that I, HENRY T. WRIGHT, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a certain new and useful Improvement in Window-Screens, of which the following is a specification.

My invention relates to a new and useful improvement in window-screens; and it has for its object to provide a window-screen which is detachably secured to the lower rail of the lower sash and the upper rail of the upper sash, so that the screen can be raised and lowered with the window, an opening being formed through the casing and a recess formed in the wall for the reception of the screen.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a front elevation of a window, showing my screen attached thereto. Fig. 2 is a vertical section of the lower part of a window, showing the lower sash partially raised and one of my screens attached thereto; Fig. 3, a section on the line 3 3 of Fig. 1; and Fig. 4, a front elevation of the lower rail of the lower sash, a portion being broken away to show the mechanism which secures the screen to the sash. Fig. 5 is a perspective view of one corner of the screen, showing the top flange cut away to allow for the sidewise motion of the screen in removing the same.

A and B are the upper and lower sashes, respectively, of the window. C represents the screens, the framework of which is preferably made of sheet metal bent over upon the edges of the wire-cloth. This will form a very thin yet strong framework, and the upper part of the framework is formed with a horizontal flange C', the outer surface of which is adapted to come in contact with the window-sash. For the purpose of securing the screen to the win-

dow-sash I provide in the lower cross-rail of the lower sash and the upper cross-rail of the upper sash a stud D, to which is adapted to be secured the spring-arms E. The natural tendency of these arms is to spring together, as shown in dotted lines in Fig. 4. Upon the free ends of the spring-arms are provided the beveled portions E', projecting outward. A slot C² is provided through the horizontal flange C' of the screen, and when the window-sash is brought against the flange C' the free end of the spring-arms E will project through the slot C², and if the arms E are then spread, so that said arms come in contact with the ends of the slot, the beveled projections E' will hold the screen in contact with the sash. For the purpose of spreading these arms I provide the turn-button G, which is secured to the stud G', which projects outward to the front of the sash and is there provided with a knob, so that the same can be rotated. This turn-button G is oblong and has flattened surfaces on each of its four faces, the corners being rounded, and when this button is turned as shown in dotted lines in Fig. 4, with its greatest length in its vertical position, it will allow the ends of the spring-arms E to come together to allow for the insertion through the slot C², and after they are inserted through the slot the button G is then turned in the position shown in full lines in Fig. 4, with its greatest length in its horizontal position, which will cause the arms E to be spread and come in contact with the ends of the slot C². The beveled surfaces upon the projections E' will force the flange C' into tight contact with the sash.

H is a recess or opening formed in the wall into which the screen is adapted to recede when the windows are closed, and when the screens are detached from the windows said screens are adapted to be held in these recesses, being entirely out of sight, but always ready for use when required.

I represents slots formed through the upright side pieces of the window-casing, into which the side frames of the screen are adapted to slide and be guided as they are raised and lowered.

When it is desired to remove the screen entirely, the screen is raised until it is entirely out of its recess H, and then by detaching

the same from the window-sash it can be pushed to one side within the slot I until the other side is free and can be removed in that way. The plate C' will be cut away sufficiently at the side to allow for this movement.

The advantage of my invention is that a screen will be provided which can be readily attached or detached, and the window can be raised or lowered any distance desired and still prevent the entrance of insects to the room, and in winter or any other time when it is not desired to use the screen the same will be out of the way and out of sight entirely, but ready for instant use at any time.

When the lower screen is detached from the sash, it will remain in its recess by reason of gravity, its own weight being sufficient to hold it in position. When the upper screen is removed from the sash, it may either have light weights running over pulleys attached to the same to hold it upward in position, or other means, such as turn-buttons or frictional springs, may be employed to hold it within its recess.

Another advantage of my invention is that the life of the screen will be prolonged, because it is not necessary to handle the screen at all.

A further advantage of my invention is that the knobs connected to the latches, which secure the screen to the sash, are only upon the inside of the room, and therefore form a lock whereby no one could enter the room while the window is raised without cutting the screen. Of course this would only be of use in preventing slight depredations, but would be much safer than the ordinary screens now used, which can be raised or removed from the outside as well as the inside.

Of course in brick or stone houses the window would have to be constructed especially for my screen; but in frame houses it would only be necessary to make an opening through the sill of the window-casing, and the screen could then be passed between the outer and inner sheathing of the wall.

Of course I do not wish to be limited to the exact construction here shown, as slight modifications could be made without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is—

1. In an apparatus of the character described, a window-screen, a horizontal flange formed with the upper portion of the frame-

work of said screen, said flange adapted to come in contact with the sash, means for detachably securing said flange to the sash for the purpose of raising and lowering the screen with the sash, a recess formed in the wall in which the screen is adapted to recede when the sash is closed, guideways formed in the upright portion of the window-casing in which the side frames of the screen are adapted to slide, said guideways being such as to allow the screen to be pushed a sufficient distance to one side to allow the removal of one edge of the screen for the purpose of removing the screen entirely, substantially as described and for the purpose specified.

2. In combination with an apparatus of the character described, a screen, a horizontal flange formed with the upper framework of the screen, a slot formed through said flange, spring-arms arranged within the cross-rails of the sash, beveled projecting portions formed upon the free end of the spring-arms, said spring-arms adapted to be normally in contact with one another for the purpose of inserting the same through the slot in the flange of the screen, means for spreading said spring-arms for the purpose of attaching the screen to the sash, substantially as and for the purpose set forth.

3. In combination with an apparatus of the character described, two spring-arms secured in the cross-rail of the window-sash, the free ends of said spring-arms projecting beyond the sash, outwardly-extending beveled portions formed upon the free end of said spring-arms, said spring-arms adapted to be in contact with one another when in their normal position, a slot formed within the screen-frame through which the ends of the spring-arms are adapted to protrude when the screen is brought in contact with the sash, an oblong button adapted to be pivoted between the spring-arms, said button adapted to spread the arms when turned to its greatest length in a horizontal position, a knob secured upon the outside of the sash for the purpose of turning said button, substantially as and for the purpose set forth.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

HENRY T. WRIGHT.

Witnesses:

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L. W. MORRISON.