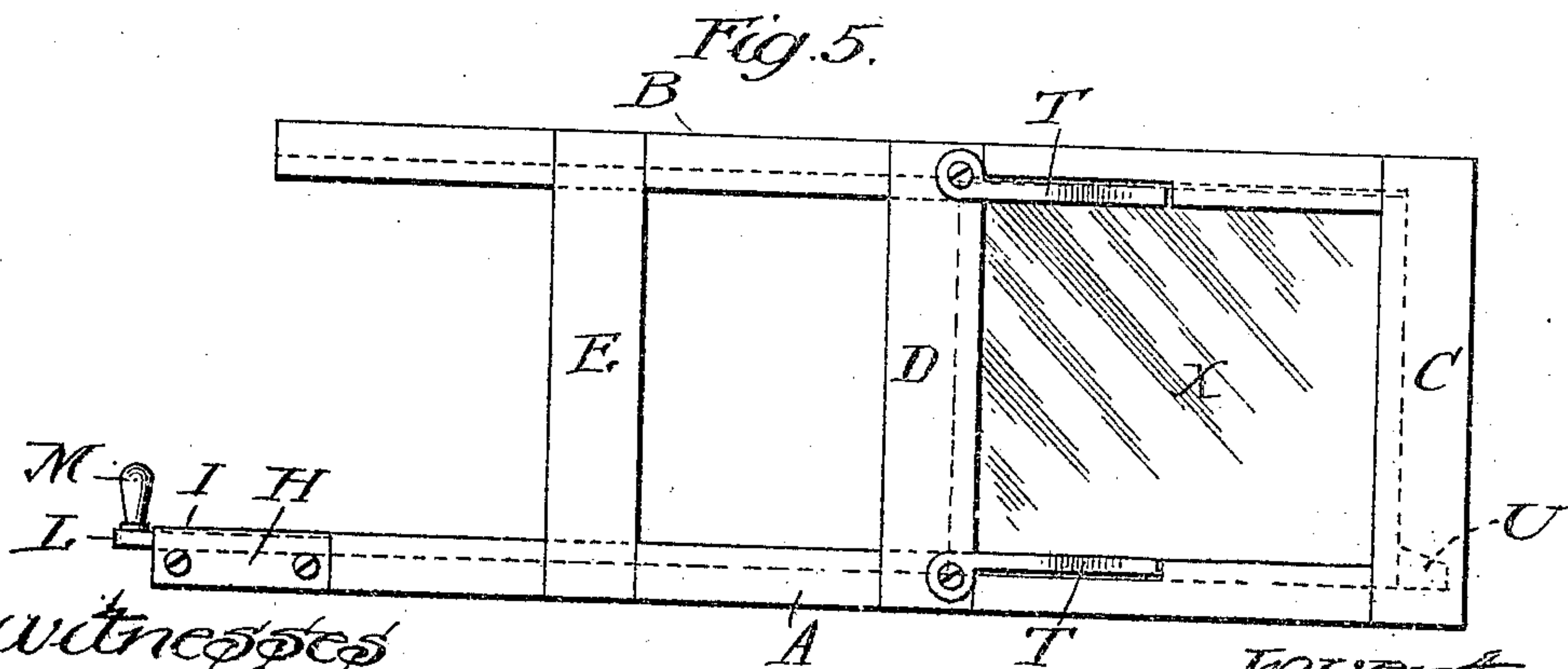
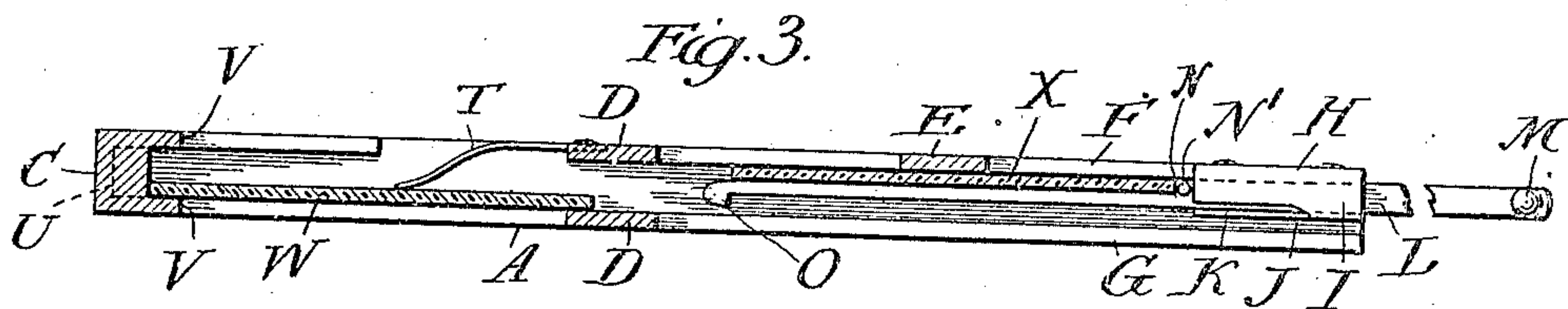
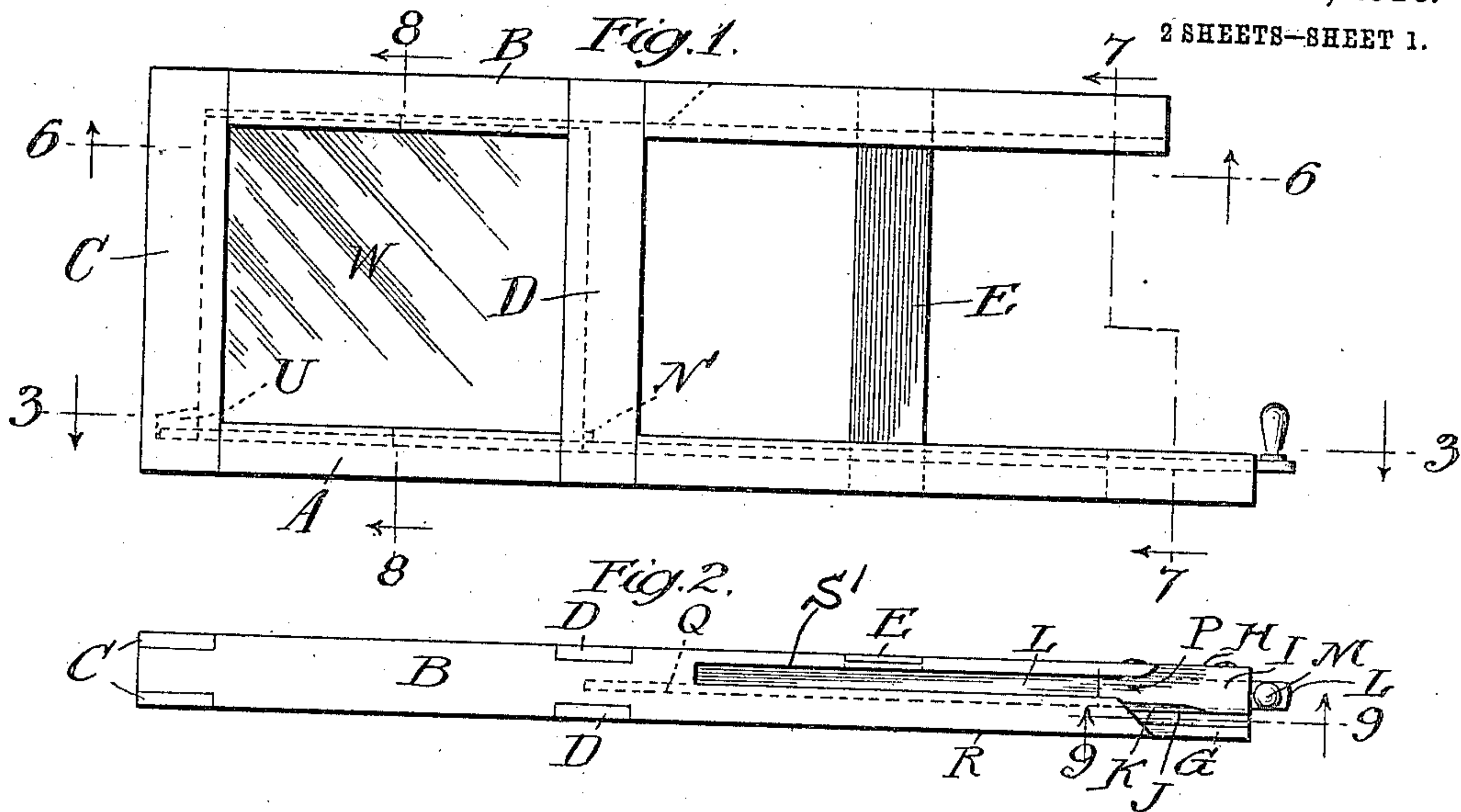


D. JAMES.
CARRIER FOR STEREOPTICONS.
APPLICATION FILED MAY 24, 1909.

952,199.

Patented Mar. 15, 1910.

2 SHEETS—SHEET 1.



Witnesses
R. A. White,
M. H. Olsein.

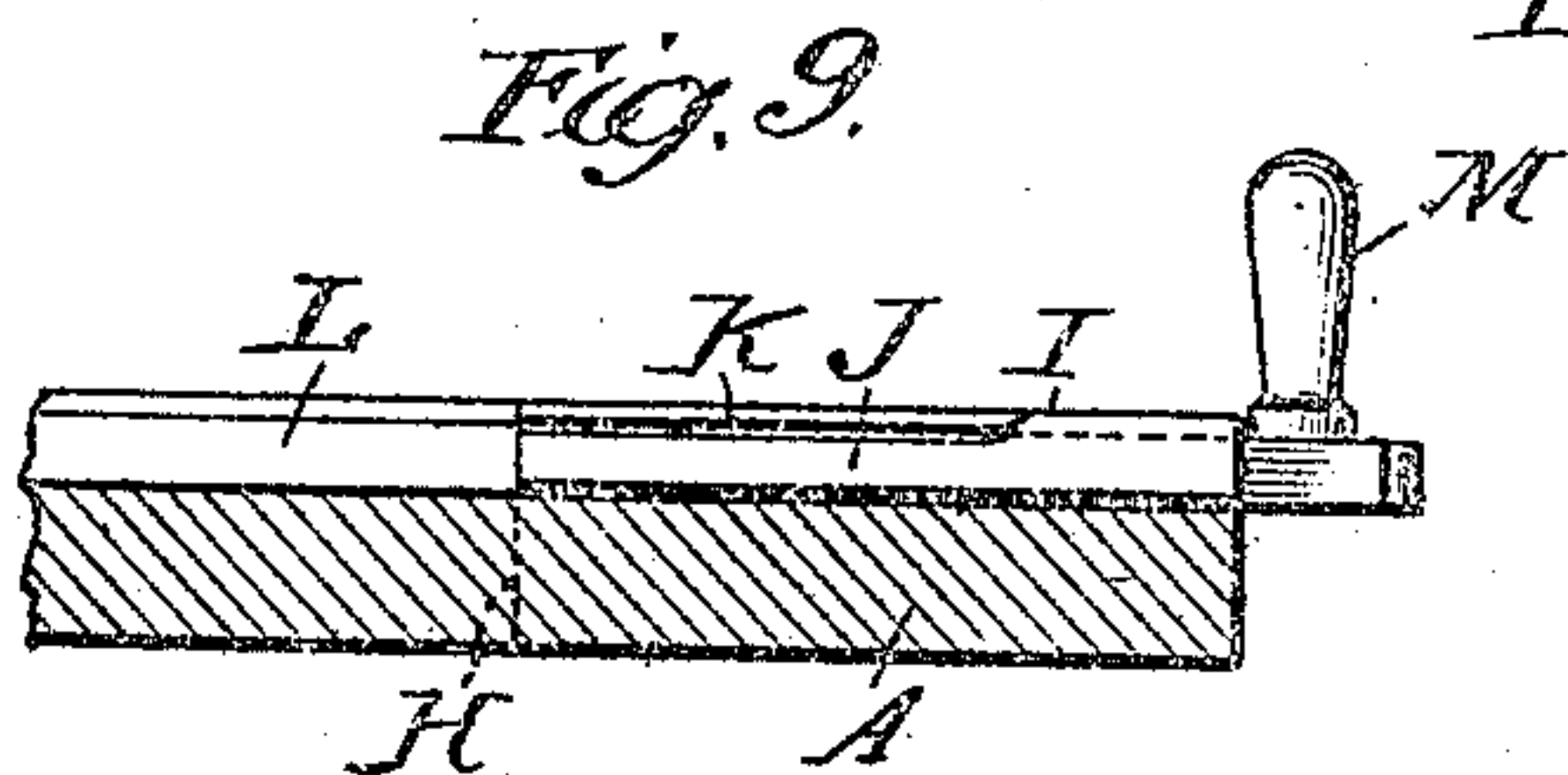
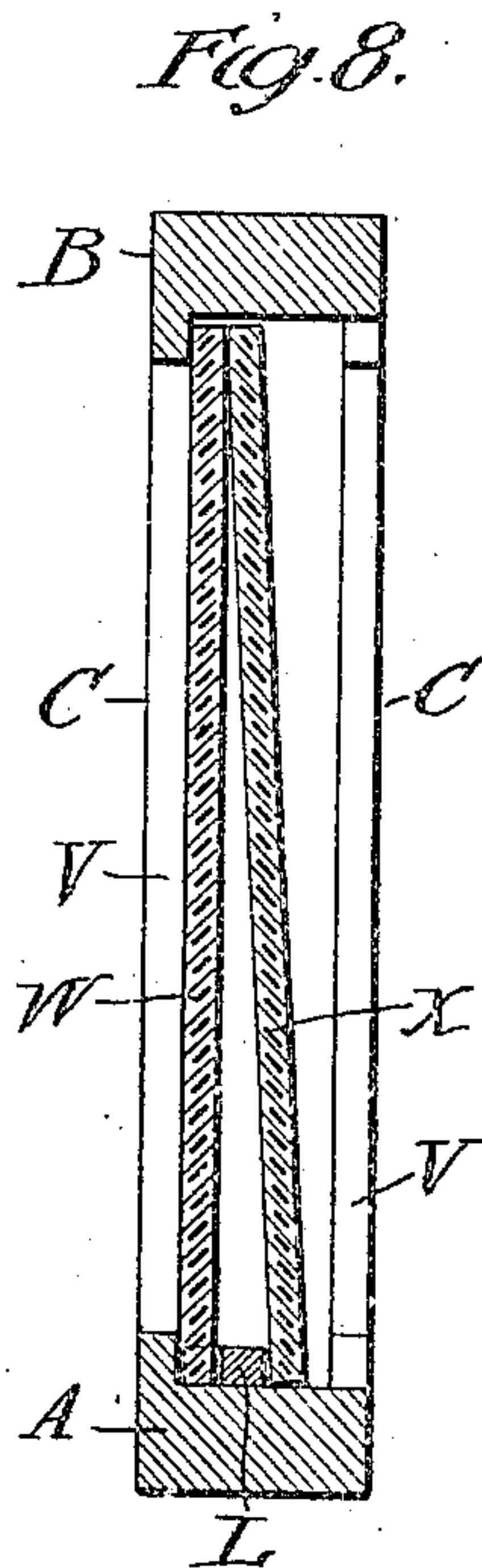
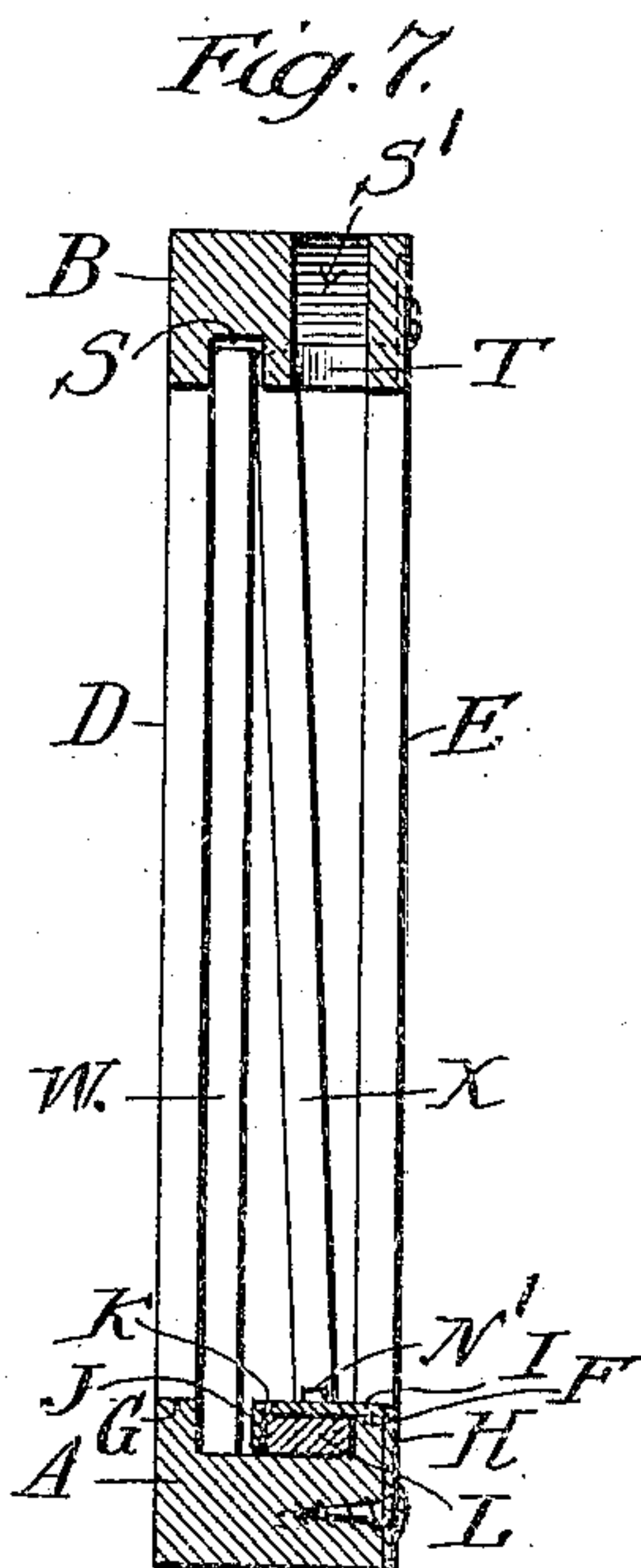
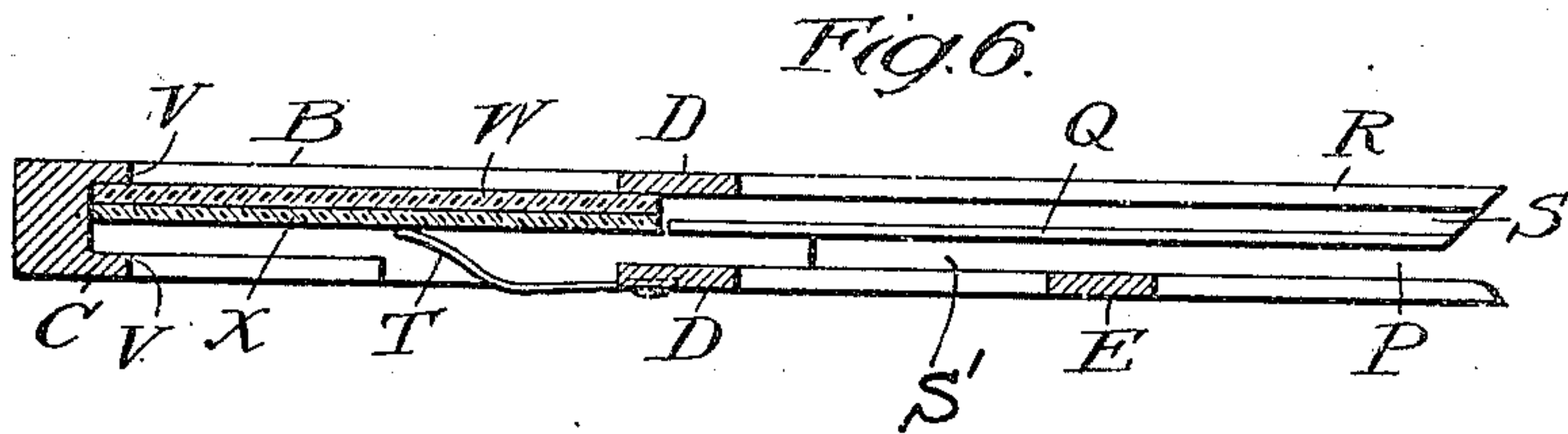
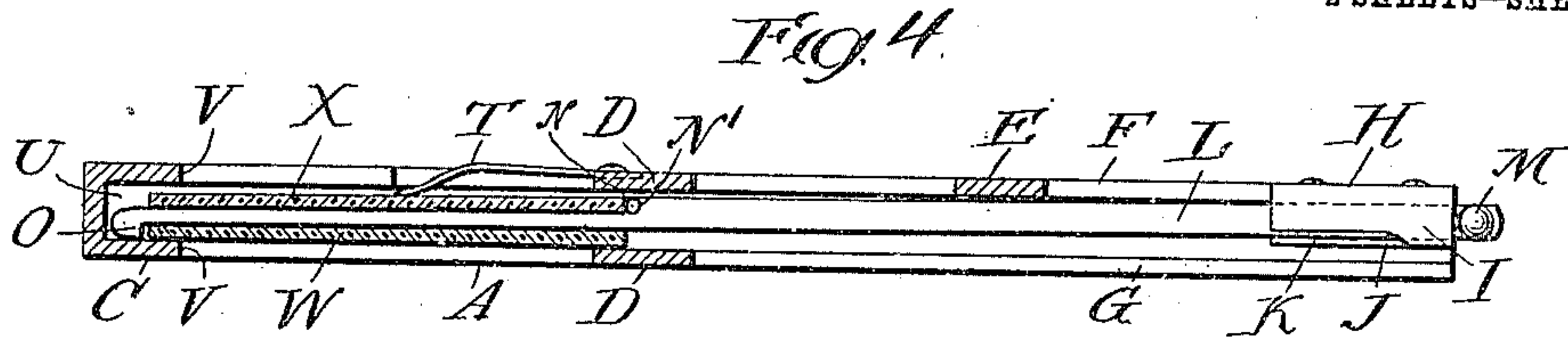
Inventor
David James
By *Rudolph H. D. Atty*

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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

DAVID JAMES, OF CHICAGO, ILLINOIS, ASSIGNOR TO BURKE & JAMES, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

CARRIER FOR STEREOPTICONS.

952,199.

Specification of Letters Patent.

Patented Mar. 15, 1910.

Application filed May 24, 1909. Serial No. 498,020.

To all whom it may concern:

Be it known that I, DAVID JAMES, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Carriers for Stereopticons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a novel construction in what is known as a dissolving carrier for lantern slides for single stereopticons, the object being to provide means whereby lantern slide plates may be easily and quickly changed without any intermission except very momentary between consecutive views, and consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings illustrating this invention: Figure 1 is a rear elevation of a carrier constructed in accordance with my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a plan section of the same on the line 3—3 of Fig. 1 showing the carrier member or plunger in position preparatory to inserting a new plate. Fig. 4 is a similar view showing the plunger at the other limit of its movement having inserted a new plate and preparatory to withdrawing the plate which had been in focus. Fig. 5 is a front elevation of the carrier. Fig. 6 is a plan section on the line 6—6 of Fig. 1. Figs. 7 and 8 are cross sections on an enlarged scale on the lines 7—7 and 8—8 respectively of Fig. 1. Fig. 9 is a fragmentary detail longitudinal section on the line 9—9 of Fig. 2.

The carrier consists of a frame of wood or other suitable material which is adapted to be inserted laterally into the stereopticon lantern and maintain plates such as lantern slides in focus therein. The lantern slides are consecutively exposed and in interchanging the same it is desirable that the operation be performed with great rapidity and in such a manner as to avoid interruption or intermission between consecutive views. In order to obtain the best effect it is desirable that the second plate be inserted before the first plate is removed so that the first view

becomes obscure momentarily and in removing the same the first view practically dissolves itself into the second view. Each consecutive view thus follows its predecessor in such a manner as to make the change practically imperceptible to the spectators and so as to avoid any glaring light on the canvas during the interval between consecutive views.

To enable the change to be effected in the manner above described is the essential object of my invention, a further object of the latter being, however, to provide a very simple and efficient device for effecting such change.

The device comprises a frame consisting of two parallel opposed guides A and B suitably connected with each other by means of the end cross pieces or rail C, intermediate rails D and a single rail E adjacent the mouth portion of the frame.

The rail A is provided in the face thereof opposing the rail B with a longitudinal groove extending the entire length thereof and which is of such width as to provide only two narrow side flanges F and G bordering said groove. To the free end portion of said rail A a piece H of sheet metal is secured which is provided on one edge with a flange I overhanging the groove in said member and which on its free edge is provided with a depending flange J, the latter being free at one end portion and constituting a flat spring K. An incision is made in alinement with the corner formed by the meeting of the flanges I and J serving to provide the said free end spring portion K. The said member H with its flanges I and J coacts with the side flange F of the rail A to form a guide for the plunger L which is longitudinally reciprocal in said groove. The said plunger L consists of a bar of metal which is rectangular in cross section and is provided at one end with a knob M by means of which it is operated. At its other end said plunger is cut away at one side to provide a recess terminating at one end in the shoulder N in which the plate to be inserted may be received, said shoulder N serving to engage said plate to force the same into the focal portion between the rails C and D of the carrier. The longitudinal wall of said recess is tapered at its free end

and opposite the free end portion of the latter is a projection O presenting a shoulder opposing the shoulder N and which is adapted to engage the innermost edge of the focused plate and withdraw the same out of the focal portion of the frame as said plunger is moved rearwardly. A pin N¹ in said plunger adjacent the shoulder N is adapted to engage one end of the member H to limit the movement of said plunger in one direction.

The rail B is provided with a longitudinal slot P in its free end portion through which a plate to be inserted may be passed into engaging relation to said plunger L and parallel with said slot. Bordering the latter on one edge is a rib Q between which and a side flange R a guide groove S is formed in which plates withdrawn from the focal portion of the slide are received, the said rib Q terminating at a point between the cross pieces D. That portion of said rail B lying between the end rail C and cross-pieces D is grooved similarly to the rail A to permit of lateral movement of the plates between the side flanges bordering said grooves. The said side flange F of the rail A and the opposing flange of the rail B are cut away about one-half their length from the cross-pieces D toward the rail C to permit access of the free end portions of flat springs T secured to the front face of the carrier at one end, said springs being shown as being enlarged at their secured ends and being secured by means of screws passing through the end portions of one of the cross-pieces D. The said free end portions of said springs T are bent so as to extend at an incline toward and lie at their free ends in contact with the other side flanges (the flange G of the rail A and the opposing flange of the rail B), the free end portion of the lower spring being adapted to be moved by the free end of said plunger L out of its path and likewise out of the path of the inner edge portion of the plate inserted by said plunger, both said springs being thereby caused to bear upon the upper and lower edge portions respectively of said inserted plate as will be obvious. The said free end portion K of said flange J permits of a slight lateral movement of the free end portion of said plunger L so that the latter may readily pass the plate which is in focus and throw the projection O of the plunger into engaging relation to said focused plate after passing the latter at its inner end so that upon withdrawing said plunger said plate will be moved out of the focal portion of the carrier. To insure such engagement the said end rail C is cut away to provide a recess U adapted to receive the free end portion or projection O of said plunger, the body portion of said end rail between the

side flanges V thereof serving as a stop to limit the movement of the inserted plate in one direction and preventing the latter from being further moved in said direction by contact of the projection O therewith during the operation of insertion of the next succeeding plate.

In the drawings in Fig. 3 I have shown a lantern slide W in the position in the carrier in which it is in focus in the lantern and a lantern slide plate X inserted in position in the carrier and in engaging relation to the plunger preparatory to the insertion thereof into the focal portion of the frame. In Fig. 4 I have shown the plate X inserted in said portion of the frame but not in focused position, so that while the view on the plate W is in focus the view on plate X would substantially obliterate the same and by reason of the latter being out of focus a very confused and blurred picture would be presented on the screen. By now moving the plunger L rearwardly the said plate W would be withdrawn from the focal portion of the carrier and as soon as the free end portion of said plunger has passed the outer edge of the plate X the said springs T will force said plate X into the position which had been occupied by the plate W and consequently in focus. The interchanging of the two plates can be effected almost instantaneously by rapidly moving the plunger inwardly and withdrawing it with substantially equal rapidity so that the movement is really more rapid than the eye can follow. Accordingly, consecutive views are presented to the spectators without sufficient intermission to attract notice, this being very desirable. The said rib Q serves to prevent tipping or tilting of the slide X to be inserted until the inner end portion thereof shall have passed the slide W so that the latter may not serve as a stop to prevent insertion of the former, and after insertion of the slide X said rib Q acts as a stop to prevent withdrawal of the same.

During the inward movement of the plunger the inner end thereof is moved laterally against the action of the spring K by the engagement of one of the springs T and in reversing the movement the spring K serves to impart lateral movement to said end of said plunger in the opposite direction as soon as the latter has passed the spring T thereby throwing the projection O out of engagement with the slide W, but not until the latter has passed the outermost edge of the plate X.

The device is very simple, light, very neat in appearance and very efficient in its operation.

I claim as my invention:

1. A slide carrier for stereopticon lanterns equipped with guides in which slides are

longitudinally and laterally movable, a plunger longitudinally movable in one of said guides and equipped on respectively opposite sides with relatively opposed projections adapted to engage and impart movement to plates in respectively opposite directions in accordance with the movements of said plunger, springs spanning said guides and engaging inserted plates for imparting lateral movement thereto, and a dividing rail in the forward end portion of the guide opposing that in which said plunger moves, said rail supporting one end of the slide against the action of one of said springs until the forward edge thereof has passed the contained slide, the inner end of said rib constituting a stop to prevent reverse movement of the last inserted plate until removal of the contained plate.

2. A carrier for stereopticon lantern slides equipped with parallel guide rails in which the same are longitudinally and laterally movable, springs operatively disposed in said guides and maintaining a plate at one limit of its lateral movement in focus in the lantern, a sleeve mounted at one end of one of said guides, a plunger passing through said sleeve and reciprocally movable therein, the inner end portion of said plunger projecting into said guide, a projection between the ends of said plunger, and a projection at one end thereof opposed to the first-named and disposed on the opposite side of the plunger therefrom, said respective projections serving to move slides in respectively opposite directions in accordance with the movements of said plunger, one of said springs throwing the inner end portion of said plunger laterally to throw said end projection into engaging relation to the focused plate.

3. A carrier for stereopticon lantern slides having parallel rails provided on the side edges of their opposed faces with flanges, the inner faces of the flanges on one side determining the focal position of the slide, the distance between the flanges of each rail being greater than the combined thickness of two slides, springs operatively disposed to engage the slide and hold same in contact with said flanges to maintain said plate in focus, a plunger reciprocally movable on one of said rails between the flanges thereof and cut away at one side to receive the edge portion of a slide and a projection at the inner end of said plunger opposite said cut away portion, said plunger when moved inwardly forcing the plate contained in the cutaway portion thereof in front of the focused plate and in engagement with said springs, one of the latter serving to move the inner end of said plunger laterally into engaging relation to the focused plate to withdraw the latter when said plunger is reversed and a stop be-

tween the side flanges of the other guide preventing retraction of the inserted slide with the contained slide.

4. A carrier for lantern slides comprising a frame having parallel side rails provided in their opposing faces with longitudinal grooves, a pair of springs spanning said grooves at their free end portions and serving to engage the plates and maintain them normally in contact with one side wall of each of said grooves, a plunger reciprocally movable in one of said grooves and provided with a longitudinal recess adapted to receive one edge portion of a plate to be inserted, and a projection at the inner end of said plunger on the opposite side from said recess adapted to engage the inner edge of the contained plate, said inner end portion of said plunger being laterally movable and adapted to be moved by one of said springs to throw said projection into engaging relation to the said contained plate, whereby the latter is withdrawn with said plunger and a stop between the side walls of the other groove supporting the inserted slide against the action of one of said springs during the inserting movement and preventing retraction thereof after completion of the inserted movement and until the contained plate has been withdrawn.

5. In a slide carrier for stereopticons, parallel guide rails provided on their side edges with flanges between which slides are longitudinally and laterally movable, a reciprocating plunger longitudinally movable in one of said guides, a projection at the inner end of said plunger on one side thereof, a projection between the ends of said plunger on the other side thereof, springs spanning said guides and engaging plates inserted by engagement with said last-named projection of said plunger to move same laterally in said guides and a spring maintaining said plunger yieldingly in a given path, the inner end of said plunger being moved laterally by one of said first-named springs against the action of the last-named to throw the first-named projection thereof into engaging relation to a contained slide to withdraw the latter.

6. A slide carrier for stereopticon lanterns provided with opposed parallel guide-rails in one end portion of which slides are laterally movable, springs spanning said portion of said guides and maintaining plates normally at one limit of movement therein, a reciprocable plunger movable longitudinally in the lower guide, opposed projections on said plunger at one end and between the ends respectively of said plunger, the upper guide rail having a contracted groove at one side and longitudinally slotted adjacent said groove, the wall of said groove bordering said slot serving to support plates against

the action of one of said springs during inserting movement, the inner end of said wall constituting a stop preventing withdrawal of the inserted plate after completion of the inserting movement until the contained plate has been withdrawn.

5

In testimony whereof I have signed my

name in the presence of two subscribing witnesses.

DAVID JAMES.

Witnesses:

E. H. MACDOWELL,
M. M. BOYLE.