J. W. BISHOP, Jr.

SASH ADJUSTER.

APPLICATION FILED MAR. 11, 1907.

899,783. Patented Sept. 29, 1908.

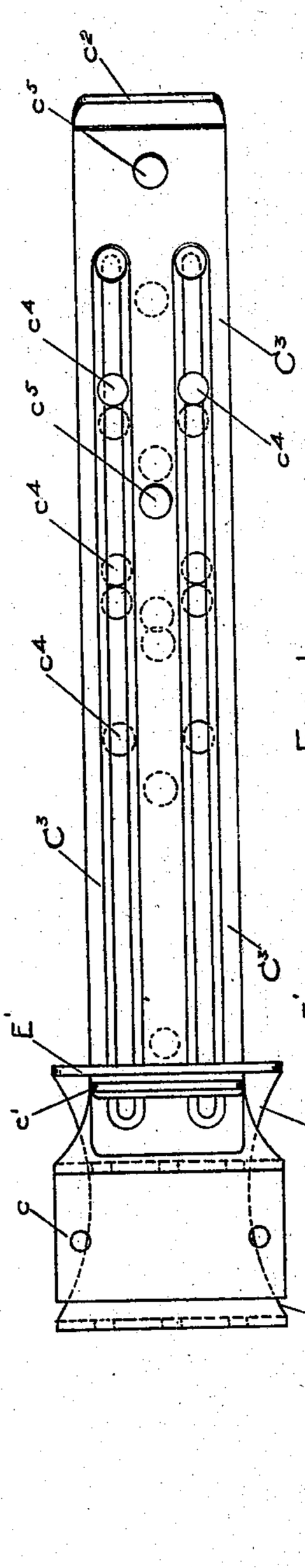

FIG. 1.

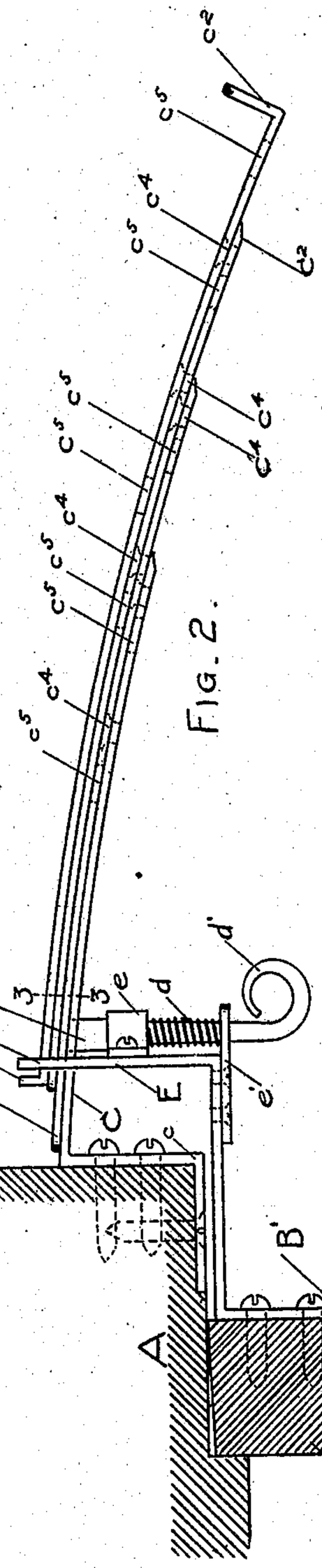

FIG. 2.

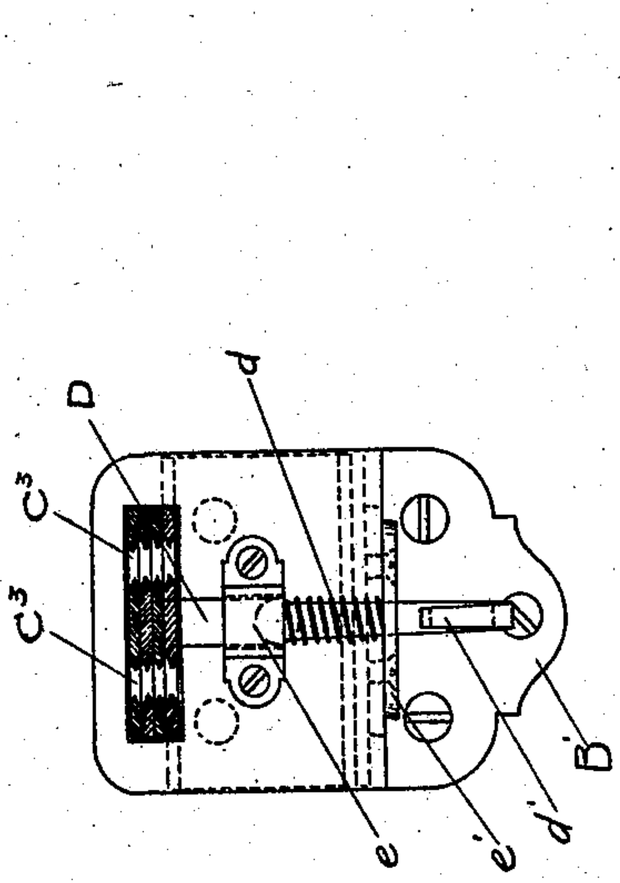

FIG. 3.

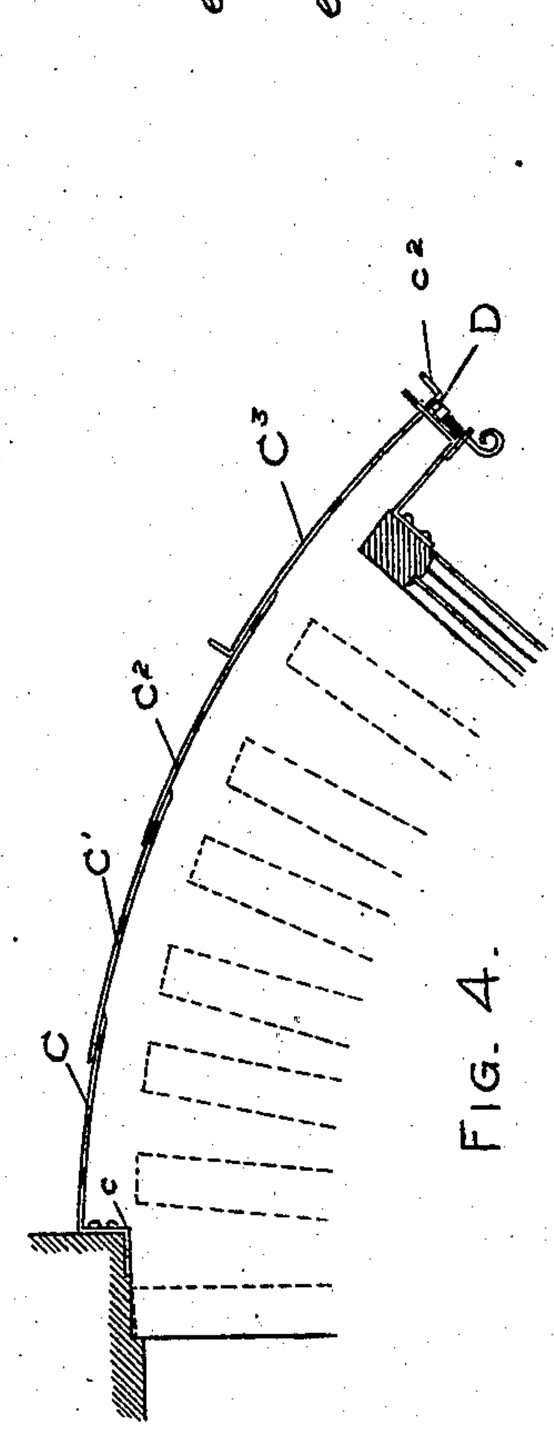

FIG. 4.

WITNESSES: M. E. Flaherty. M. V. Foley

INVENTOR, John W. Bishop Jr. by Church Kayser & Goodrich Attys.

UNITED STATES PATENT OFFICE.

JOHN W. BISHOP, JR., OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO J. W. BISHOP COMPANY, OF PROVIDENCE, RHODE ISLAND, A CORPORATION OF RHODE ISLAND.

SASH-ADJUSTER.

No. 899,783. Specification of Letters Patent. Patented Sept. 29, 1908.

Application filed March 11, 1907. Serial No. 361,774.

To all whom it may concern:

Be it known that I, JOHN W. BISHOP, Jr., of Worcester, in the county of Worcester and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Sash-Adjusters, of which the following is a specification.

My invention is especially intended to meet the requirements of factory construction where transoms are used which are very large and heavy and require strong and rigid appliances to support them. Such transoms are hinged along their lower edge and one or more chains are ordinarily used to keep them from opening too wide. With a chain, however, there is difficulty of adjustment so that the transom often cannot be opened to the right extent and there are other objections which would naturally suggest themselves due to the flexibility of the chain.

My invention consists of an extensible sash adjuster of peculiar construction by means of which the transom may be opened within limits to almost any required distance and will not only be held from opening further but from closing.

My invention will be understood by reference to the drawings, in which—

Figure 1 is a plan of a sash adjuster embodying my invention. Fig. 2 is a side elevation showing the sash adjuster attached to a window frame and sash. Fig. 3 is a section on line 3—3 of Fig. 2, and Fig. 4 is a view in reduced scale showing the position of the adjuster when the sash is open.

A is the window frame and B is the sash. As shown, the adjuster comprises an extensible rod consisting of four slides or sections C, C^1, C^2, C^3 and a latch D. One of the sections C has at one end an angle arm *c* by means of which it is attached to the window frame. The slides C^1 and C^2 are substantially rectangular in shape as are the slides C and C^3 in plan, but the ends of the slide C^3 are preferably bent upward as shown at c^1, c^2 to form stops for the purpose to be hereinafter described. The slides C^1, C^2 and C^3 are slotted, as shown at c^3 and in these slots run rivets attached to the adjacent slide which form with the slots guides not only to limit the movement of the engaging slides with relation to each other but also require them to move in line with the other sections. These rivets are shown at c^4, and it will be noted that in the form of my invention shown, the rivets pass through the slots in the upper section and are riveted into the lower section on which the upper section rests. Thus the adjuster is extensible and always maintains a predetermined relation with regard to the window frame.

In addition to the slots referred to, each section has a series of openings c^5 adapted to register with the catch D attached to the window sash by means of a bracket E. This catch is of ordinary sliding bolt construction and is normally held in upward or engaging position by means of a spring *d* which lies between a collar *e* attached to the bracket E and a lug e^1 also attached to the bracket E. The bracket E is attached to the sash at B^1 and is provided with a loop E^1 which slides over the extensible rod so as to maintain proper relation between the sash, the latch and the slides.

In operation the bolt D is withdrawn, for example,—by engaging a hooked pole with the eye d^1 of the catch and withdrawing it and pulling the sash outward as far as it is desirable to open it, then allowing the catch to find the nearest place of engagement c^5 in the segment. This place of engagement may be either upon the section C, upon the section C^1, upon the section C^2, or upon the section C^3, depending upon how widely the sash is opened, and it will be noted that owing to the sliding relation of these various sections or slides the length of the segment will adjust itself to the requirements of the case.

If the sash is to be opened only a comparatively short distance so that its bolt engages with one of the openings c^5 in the section C^1, the stop c^1 of the section C^3 will engage the loop E^1 of the latch bracket and prevent the extensible rod from opening out further than is necessary, so that the extensible rod although it is free to open as far as may be required, never will open any farther than the length of the section C^3 beyond the loop E^1. The stop c^2 prevents the catch bracket from accidentally running off the segment and allowing the sash to fall.

It is of course evident that the form of catch and its engaging means with the sections of the extensible rod may be different from that shown. Moreover, I do not mean to limit myself to the exact arrangement or

construction of parts or their exact attachment to the frame and sash as these may vary without departing from my invention.

What I claim as my invention is:—

1. A sash adjuster comprising a plurality of telescoping slides and a catch adapted to engage with any one of said slides, one of said slides being provided with means whereby it may be attached to a window frame and said catch being adapted to be attached to the sash as described.

2. In a sash adjuster, in combination with a catch adapted to be attached to a sash, a plurality of slides one of which is adapted to be attached to a window frame, each slide having a slotted connection with the slide adjacent to it and having means of engagement with said catch as described.

3. In a sash adjuster, in combination with a catch and its bracket, an extensible rod comprising a plurality of slides, one of said slides being attachable to a window frame and forming one end of said rod, the slide forming the other end of said rod when extended having a stop at each end, each adapted to engage said catch bracket, the one when said sash is wholly or partially closed and the other when the sash is fully open as set forth.

4. In a sash adjuster, an extensible rod comprising a plurality of slides, and a catch mechanism, the one being adapted to be attached to the window frame and the other to the sash, said catch mechanism carrying means whereby the length of said extensible rod is controlled and said extensible rod carrying means whereby the opening movement of the sash is restrained as described.

5. In a sash adjuster, an extensible rod comprising a plurality of parts slidably connected and a catch mechanism adapted to engage with and lock said slides in any given position.

JOHN W. BISHOP, Jr.

In presence of—
GEORGE O. G. COALE,
M. E. FLAHERTY.