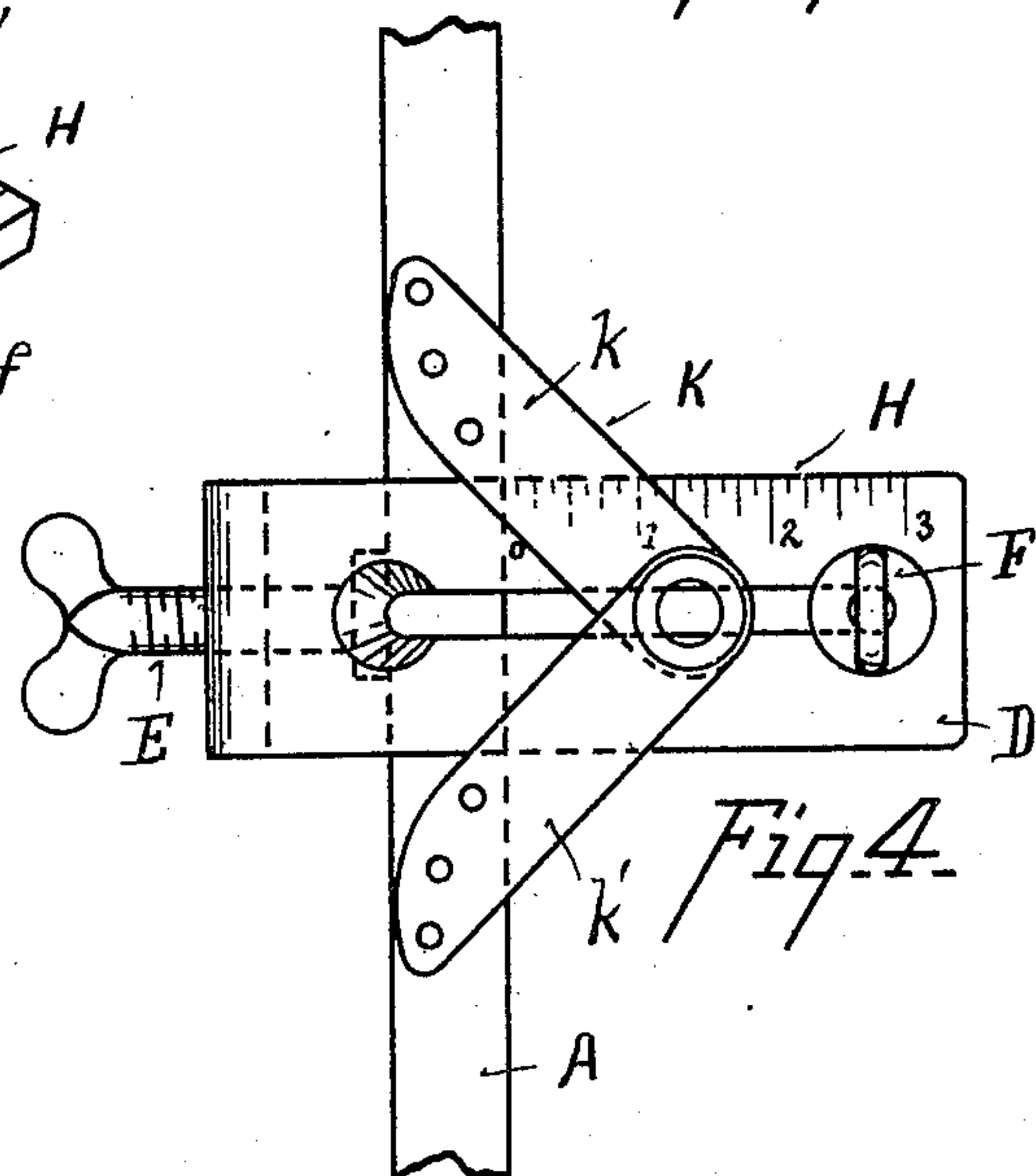
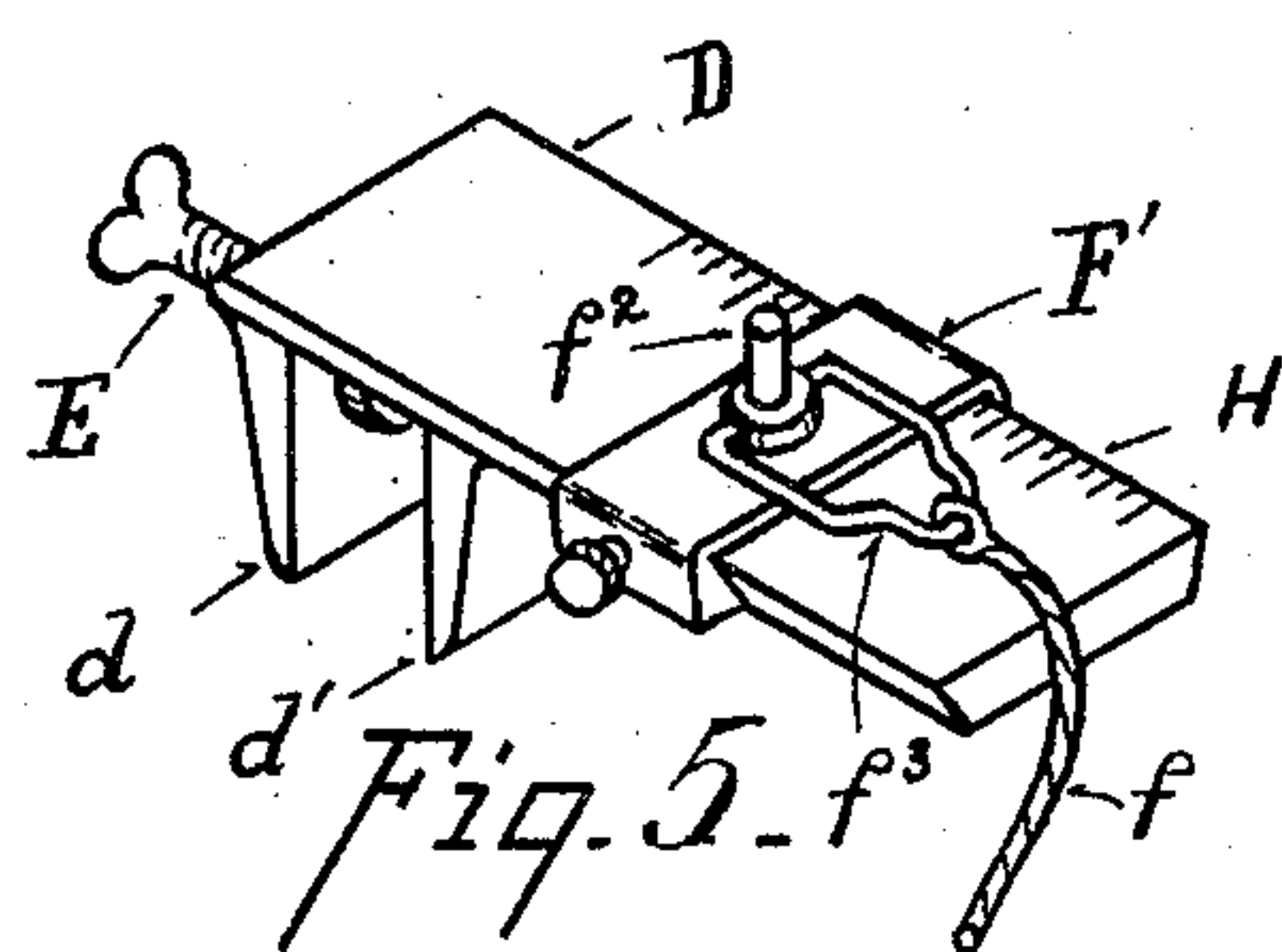
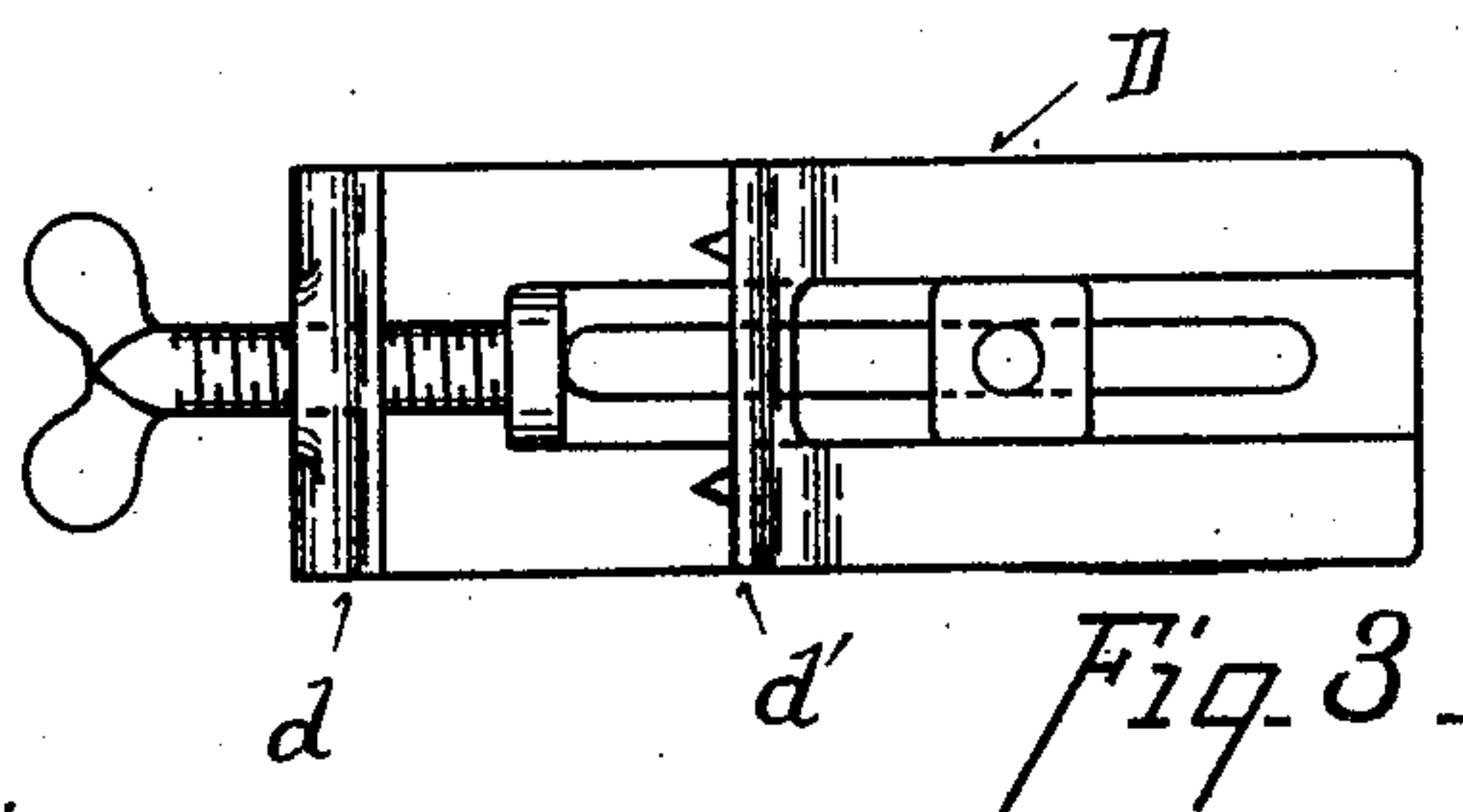
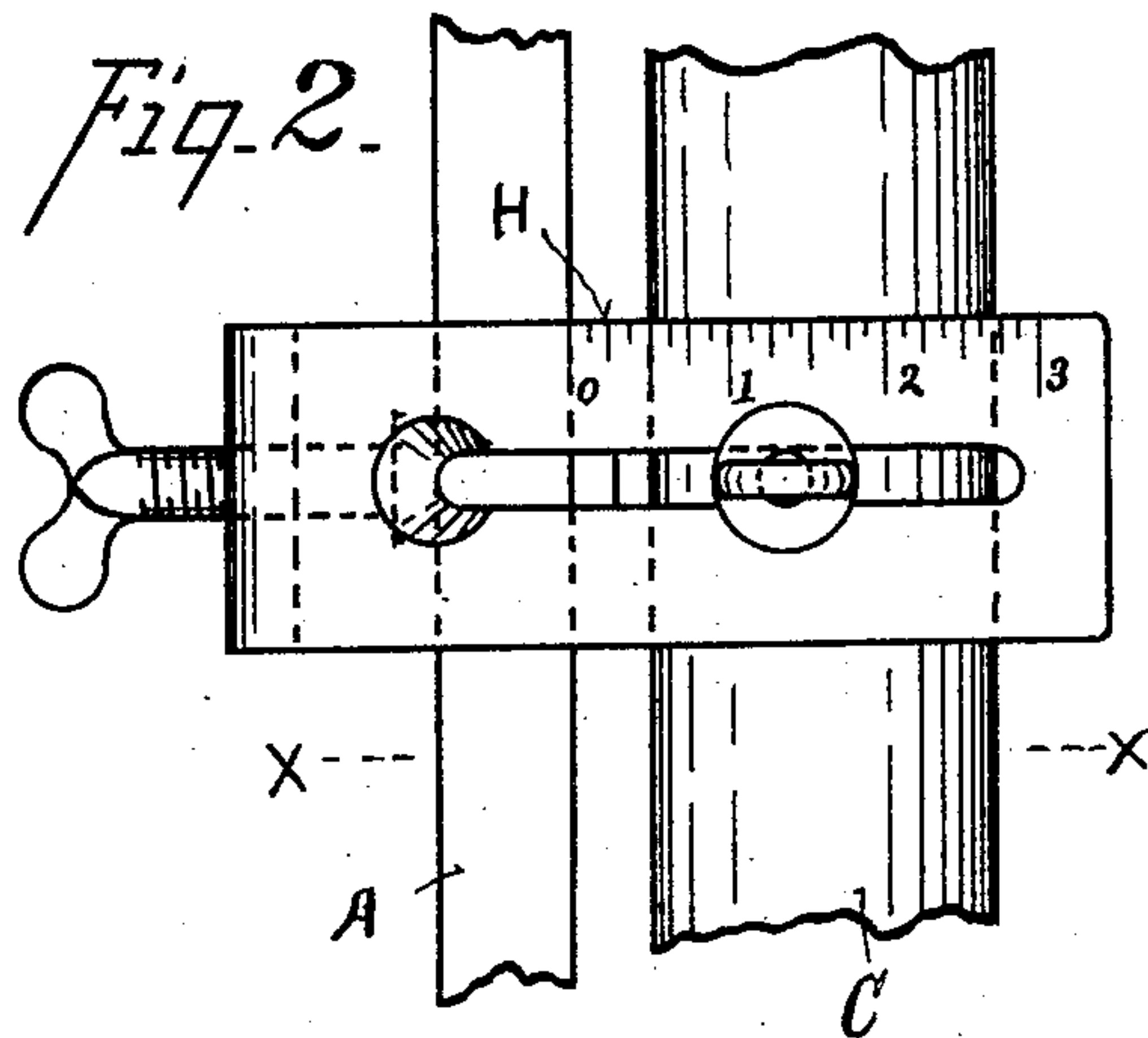
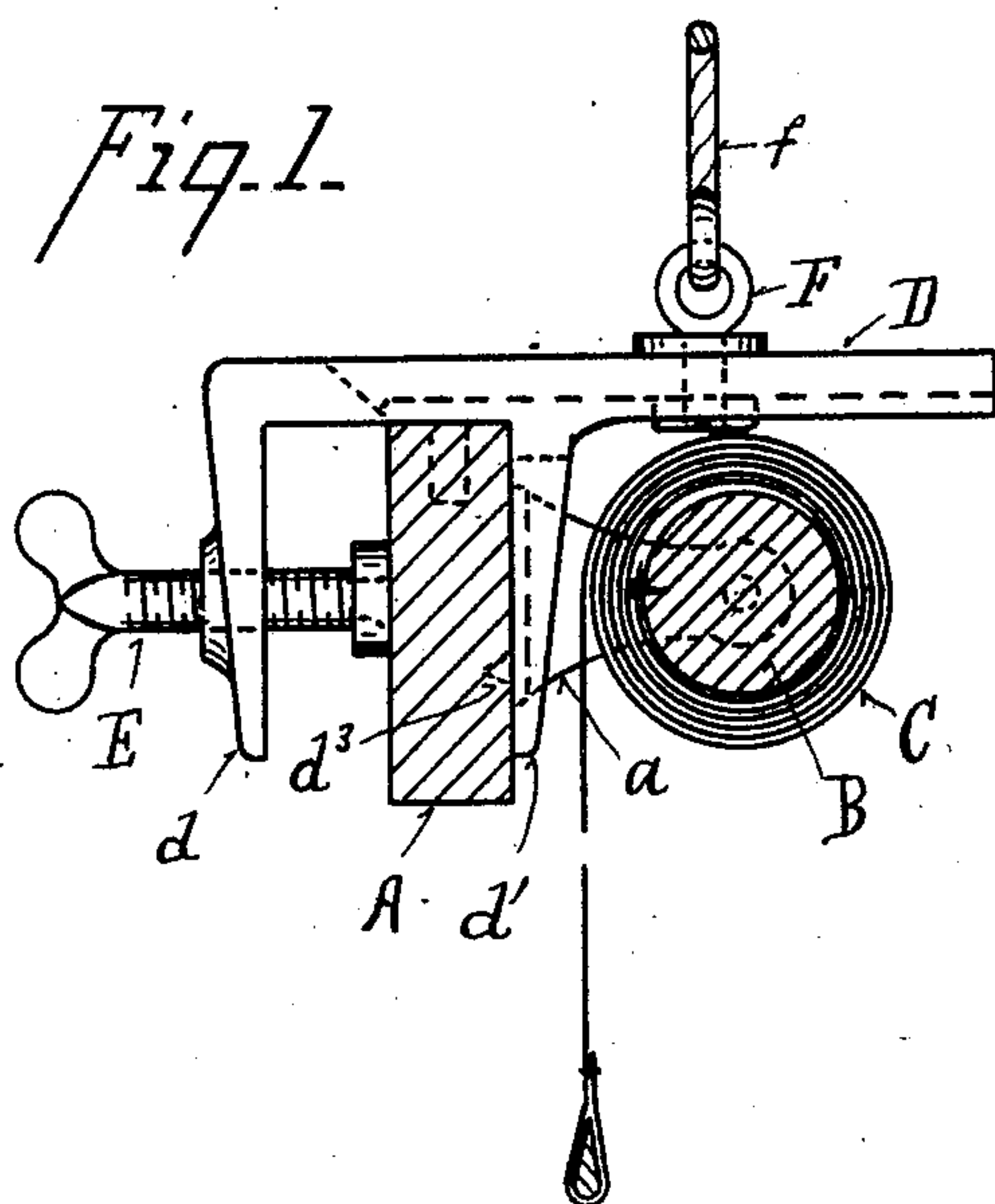


A. H. HOVER & A. N. FRIES.  
WINDOW SHADE ADJUSTER GAGE.  
APPLICATION FILED MAR. 22, 1909.

934,531.

Patented Sept. 21, 1909.



Witnesses

Wm. Reubman  
A. McCormack.

Inventors  
Albert H. Hover and  
Albert N. Fries

By

C. W. Miles,

Attorney



# UNITED STATES PATENT OFFICE.

ALBERT H. HOVER AND ALBERT N. FRIES, OF CINCINNATI, OHIO.

## WINDOW-SHADE-ADJUSTER GAGE.

934,531.

Specification of Letters Patent. Patented Sept. 21, 1909.

Application filed March 22, 1909. Serial No. 484,964.

*To all whom it may concern:*

Be it known that we, ALBERT H. HOVER and ALBERT N. FRIES, citizens of the United States of America, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Window-Shade-Adjuster Gages, of which the following is a specification.

Our invention relates to improvements in window shade adjuster gages.

One of its objects is to provide a temporary, detachable, adjuster gage for the use of dealers and workmen adapted to conveniently ascertain the point at which the permanent adjuster for a single shade, or adjusters for a series of shades of like dimensions should be attached to support the shades in equilibrium.

It further consists in certain details of form combination and arrangement, all of which will be more fully set forth in the description of the accompanying drawings in which:

Figure 1 is a section through a shade, shade roller and supporting bar on line  $x-x$  of Fig. 2, and showing our improved adjuster gage in place. Fig. 2 is a top plan view of a section of the supporting bar, shade and shade roll, and showing the adjuster gage in top plan. Fig. 3 is a bottom plan view of the adjuster gage detached. Fig. 4 is a view similar to Fig. 2 showing the permanent adjuster over the adjuster gage in the act of being adjusted to position. Fig. 5 is a perspective view of a modified form of adjuster gage.

The adjuster gage herein illustrated is particularly adapted to facilitate the ready adjustment of the adjusters disclosed in our application Ser. No. 467,853 to the position relative to the shades they are to support.

In the accompanying drawings A represents a cross-bar or supporting bar which is preferably weighted at its opposite ends and carries at its opposite ends brackets  $a$  which serve to support an ordinary spring actuated shade roller B, having wound thereon a window shade C.

The above named parts are to be supported by a cord whose point of attachment for suspension is to be so located as to support the parts in equilibrium so that they will retain the desired position relative to each other and the window. The point at

which the said parts will be supported in equilibrium varies with variations in the length and width of the shades. The bar, shade, and roller are to be permanently supported by an adjuster, preferably of the form shown in our said earlier application, and to an eye of said adjuster the supporting cord is to be attached. In order that the proper position for the permanent adjusters may be readily and quickly ascertained by dealers, workmen and others engaged in hanging such shades we provide an adjuster gage comprising a cross bar D, a pair of jaws  $d$   $d'$ , a clamping screw E, or its equivalent in clamping mechanism, and a member F adapted to slide relative to the cross bar D, and to which member F a short piece of cord  $f$  may be attached, or a cord mounted upon a window frame or skeleton frame may be temporarily attached by a snap hook. The cross bar D is temporarily clamped at the center of the supporting bar A as indicated in Fig. 1, and the member F moved until when suspended by cord  $f$ , the shade, shade roller, and bar A hang in the desired position, as indicated in Fig. 1. The position of the sliding member F may then be noted on the scale H', and upon slipping the slide F to the end of bar D, a permanent adjuster K may be placed over the bar D and adjusted with its eye over the point previously occupied by the center of slide F, and its arms  $k$   $k'$  in position above the bar A. If several shades of like dimensions are to be hung, the several permanent adjusters therefor may be successively adjusted over the bar D, the adjuster gage is then detached, and the permanent adjusters, which with ordinary care will retain their adjusted position, are screwed to place on the several bars A. We preferably provide the jaw  $d'$  with spurs  $d^3$  to hold the gage in place relative to the supporting bar A.

In the modification Fig. 5, we have shown a pin  $f^2$  carried by the slide F' and a link or loop  $f^3$  to which the suspending cord is attached, and which loop is pivotally attached to the base of pin  $f^2$ , so that when the suspending cord is not in use the link  $f^3$  and suspending cord fall to one side to permit the eye of the permanent adjuster to be fitted over the pin  $f^2$ . We are thus enabled to quickly and accurately adjust one or more permanent adjusters to the desired position.

The article herein illustrated and de-



scribed is capable of considerable modification without departing from the principle of our invention.

Having described our invention what we claim is:

1. In an article of the character indicated, a cross bar provided with downwardly projecting jaws, a clamping member carried by one of said jaws, a member adapted to suspend said cross bar, and a member adjustable relatively to said cross bar and connecting said suspending member to said cross bar.

2. In an article of the character indicated a cross bar provided with downwardly pro-

jecting jaws a clamping member carried by one of said jaws, a member adapted to suspend said cross bar and a member adjustable relatively to said cross bar and connecting said suspending member to said cross bar, said adjustable member being provided with an upwardly projecting pin.

In testimony whereof we have affixed our signatures in presence of two witnesses.

ALBERT H. HOVER.  
ALBERT N. FRIES.

Witnesses:

ALBERT W. SCHWARTZ,  
C. W. MILES.