

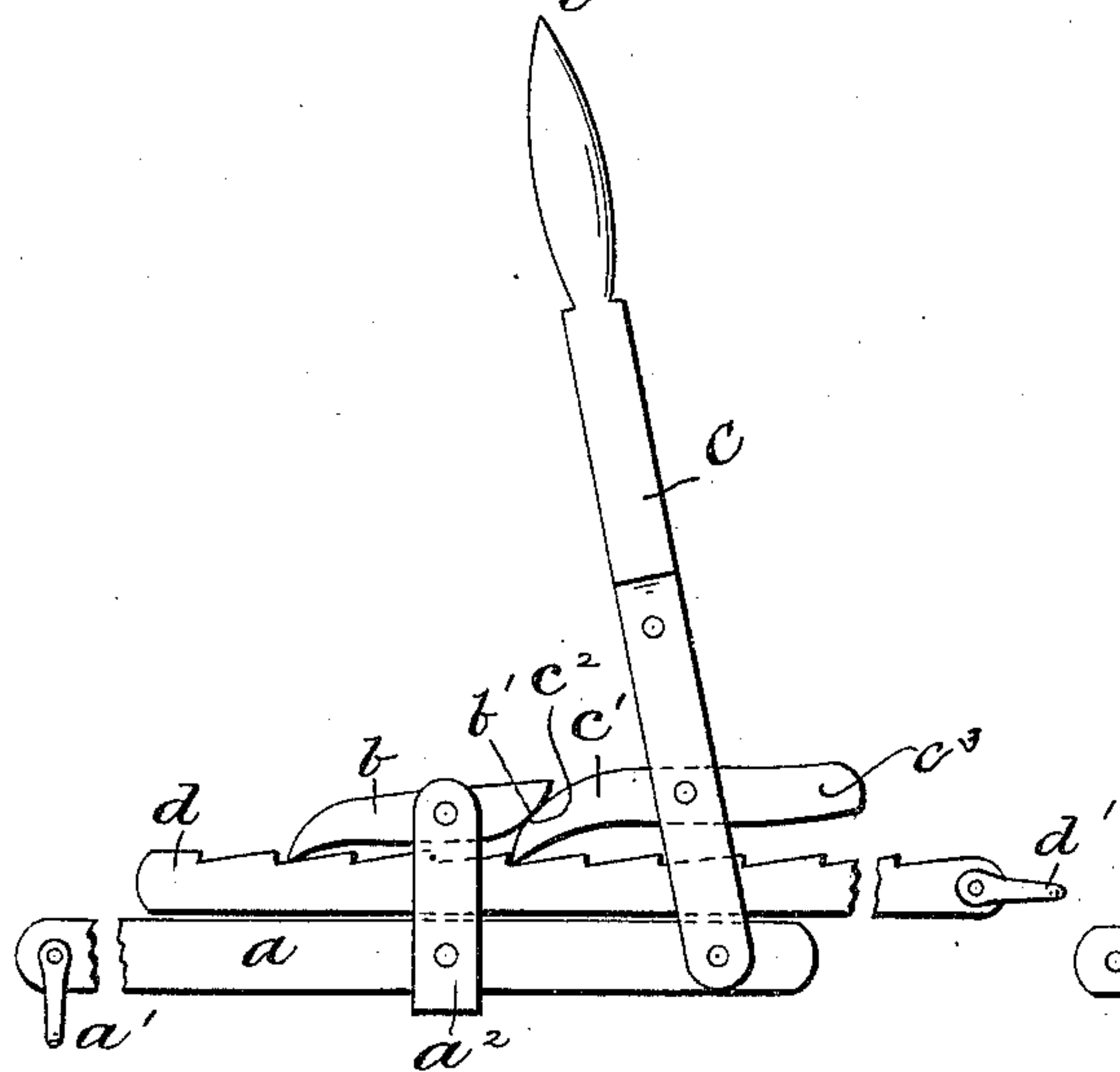
(No Model.)

S. GREEN.  
WIRE STRETCHER.

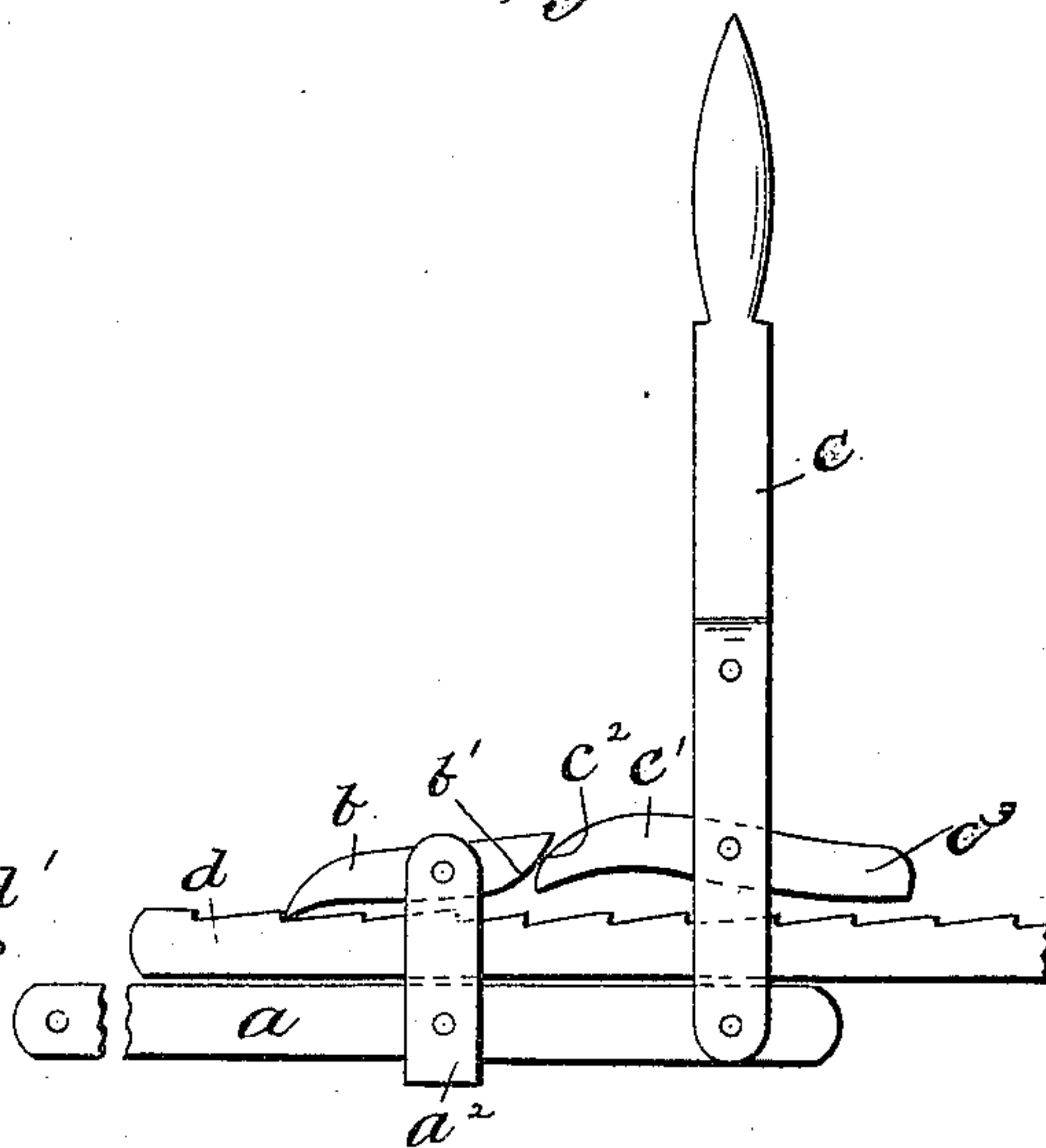
No. 321,963.

Patented July 14, 1885.

*Fig. 1.*



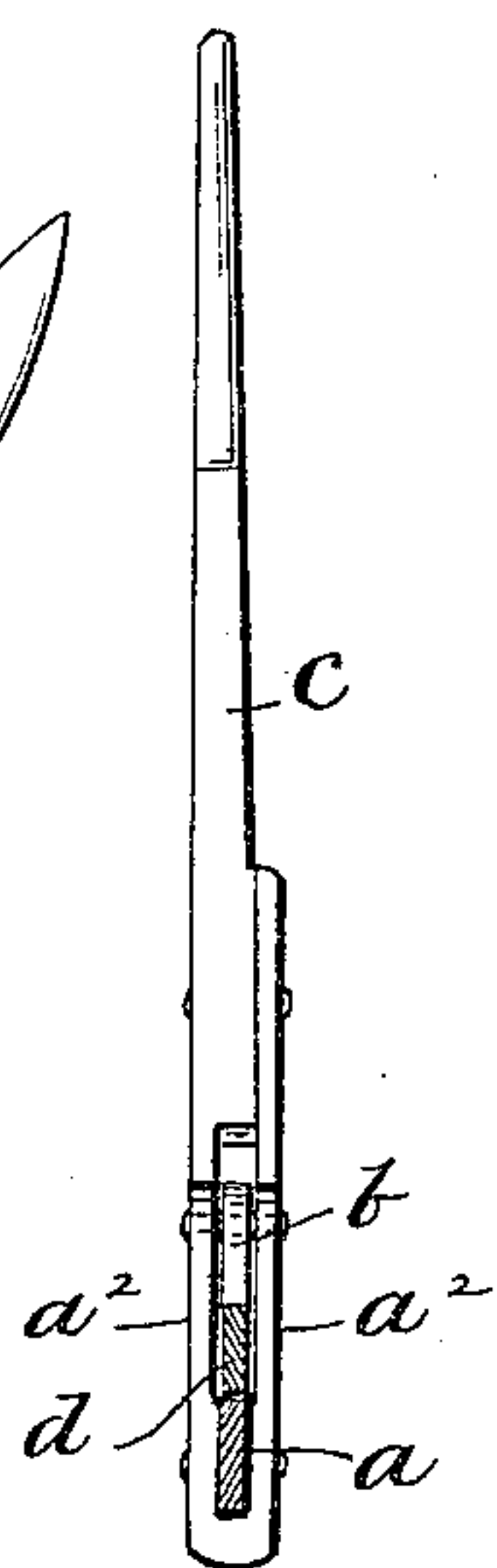
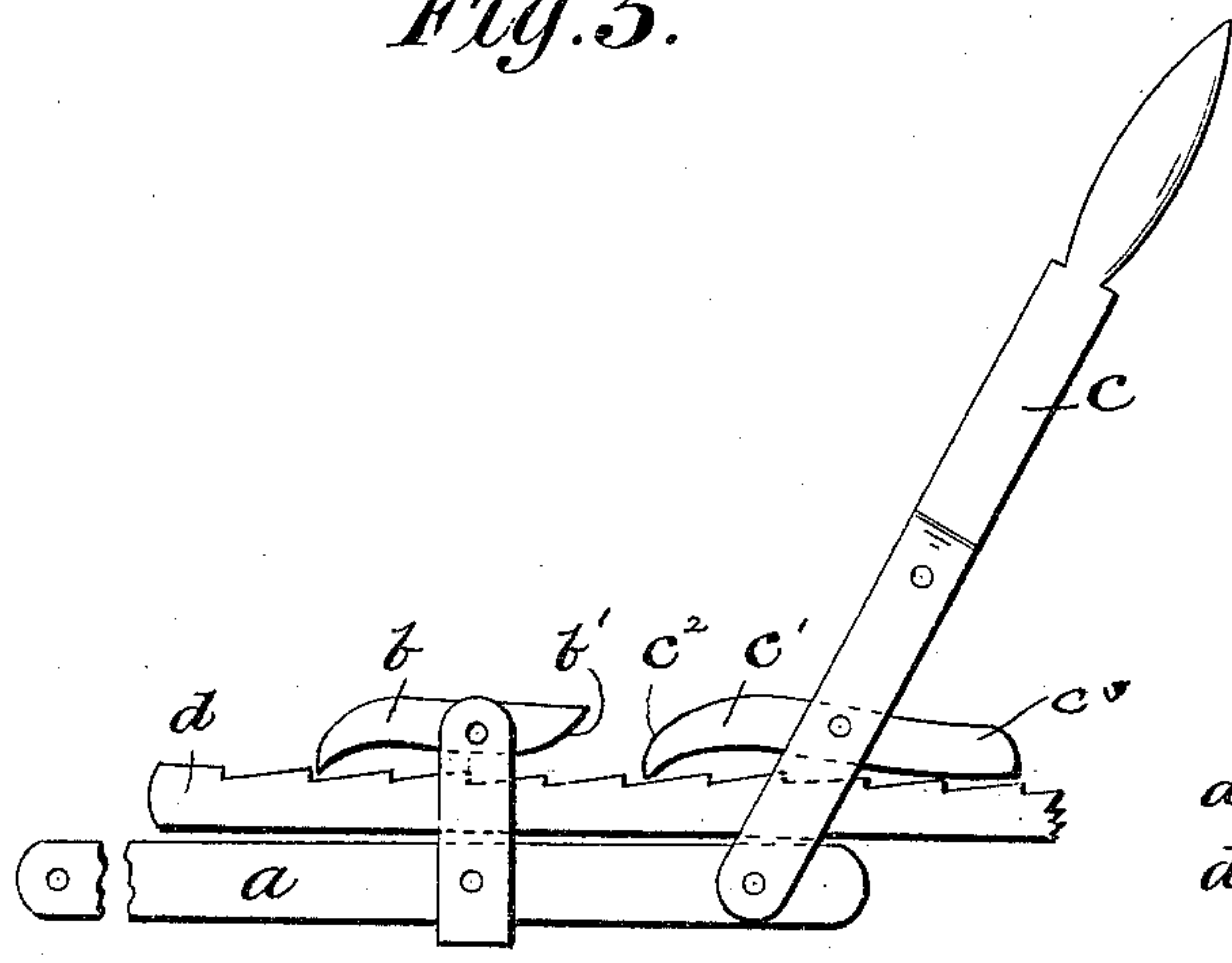
*Fig. 2.*



*Fig. 4.*

*Fig. 5.*

*Fig. 3.*



Witnesses.

*Sam R. Turner*  
*P. B. Turpin.*

Inventor

*Sanfra Green*

*By R. B. & A. T. Lacey*  
*Atty's*

# UNITED STATES PATENT OFFICE.

SANFORD GREEN, OF MARENGO, IOWA.

## WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 321,963, dated July 14, 1885.

Application filed March 10, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, SANFORD GREEN, a citizen of the United States, residing at Marengo, in the county of Iowa and State of Iowa, have invented certain new and useful Improvements in Wire-Stretchers; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to wire-stretchers; and it consists in certain novel features of construction hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a side view, slightly in perspective, showing the lever drawn in the movement by which the wire is stretched. Fig. 2 is a plan view. Fig. 3 shows the lever and pawl entirely back and engaged with the ratchet-bar preparatory to moving the sliding ratchet-bar. Figs. 4 and 5 are detail views.

The main bar  $a$  is provided on one of its ends with the link or strip  $a'$ , by which it may be attached to a post or other suitable stationary object.

Near the other end of the main bar I arrange two small lugs or arms,  $a^2$ , on opposite sides thereof. Between the outer ends of the lugs I pivot the retaining-pawl  $b$ . I employ two lugs,  $a^2$ , though one would answer the purpose of carrying the pawl. Between the pawl  $b$  and the main bar the ratchet-bar slides in the movements for stretching the wire.

Approximately at the end of the main bar the lever  $c$  is pivoted. This lever is preferably bifurcated, and has its arms adapted to fit on opposite sides of the main bar, and also permit the ratchet-bar to slide between them.

The actuating-pawl  $c'$  is pivoted to the lever  $c$  between the arms thereof.

The pawl  $c'$ , instead of being placed between the arms of the lever  $c$ , could be bifur-

cated or bent laterally and adapted to be secured on the outer side of said lever.

In case I employ only one lug,  $a^2$ , and pivot the lever on one side only of the main bar, I employ small lugs or guides on the opposite side of the said bar to hold the ratchet-bar steadily on the edge thereof.

$d$  is the sliding ratchet-bar provided with a link,  $d'$ , on its end, as shown. This sliding bar is placed on the edge of the main bar, and in such position that the pawls will engage upon its teeth.

The retaining-pawl  $b$  has its under edge beveled at its rear end at  $b'$ , and the forward end of the pawl  $c'$  is beveled on its upper edge at  $c^2$ , so that it will slide under the rear end or extension  $b'$  of pawl  $b$  and cause the point of the latter to drop behind one of the teeth on the ratchet-bar.

The actuating-pawl is provided with an extension,  $c^3$ , in the rear of its pivot, which extension in the backward movement of the lever engages and is moved outward by the ratchet-bar, so that the point of said pawl will be moved toward and in position to engage the racks when the lever is given its forward or operating motion.

It will be seen that this is an automatic stretcher. One of the pawls is engaged with the ratchet-bar when the other is disengaged. I prefer to fix the wire to the ratchet-bar and fasten the end of the main bar to the stationary post; but this order may be reversed, and the results will be the same.

In operating the device the lever is usually held and swings in a horizontal plane, so that its motion will not interfere with the adjacent strands of wire.

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

1. The wire-stretcher hereinbefore described, composed of the bar  $a$ , provided with the lug  $a^2$ , pawl  $b$ , lever  $c$ , pawl  $c'$ , pivoted to the lever  $c$ , and constructed to engage the ratchet-bar and to slide under the rear end of the pawl  $b$  to force the point of the same downward, and the sliding ratchet-bar  $d$ , substantially as set forth.

2. In a wire - stretcher, the combination,  
with the main bar, of a sliding ratchet-bar, a  
retaining-pawl, a lever pivoted upon the main  
bar, and a pawl pivoted upon the lever and  
5 having its forward end constructed to engage  
the sliding bar and slide under the rear end of  
the retaining-pawl and actuate the same, sub-  
stantially as set forth.

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

SANFORD GREEN.

Witnesses:

JAMES PATRIDGE,  
WM. STOREY.