

No. 773,358.

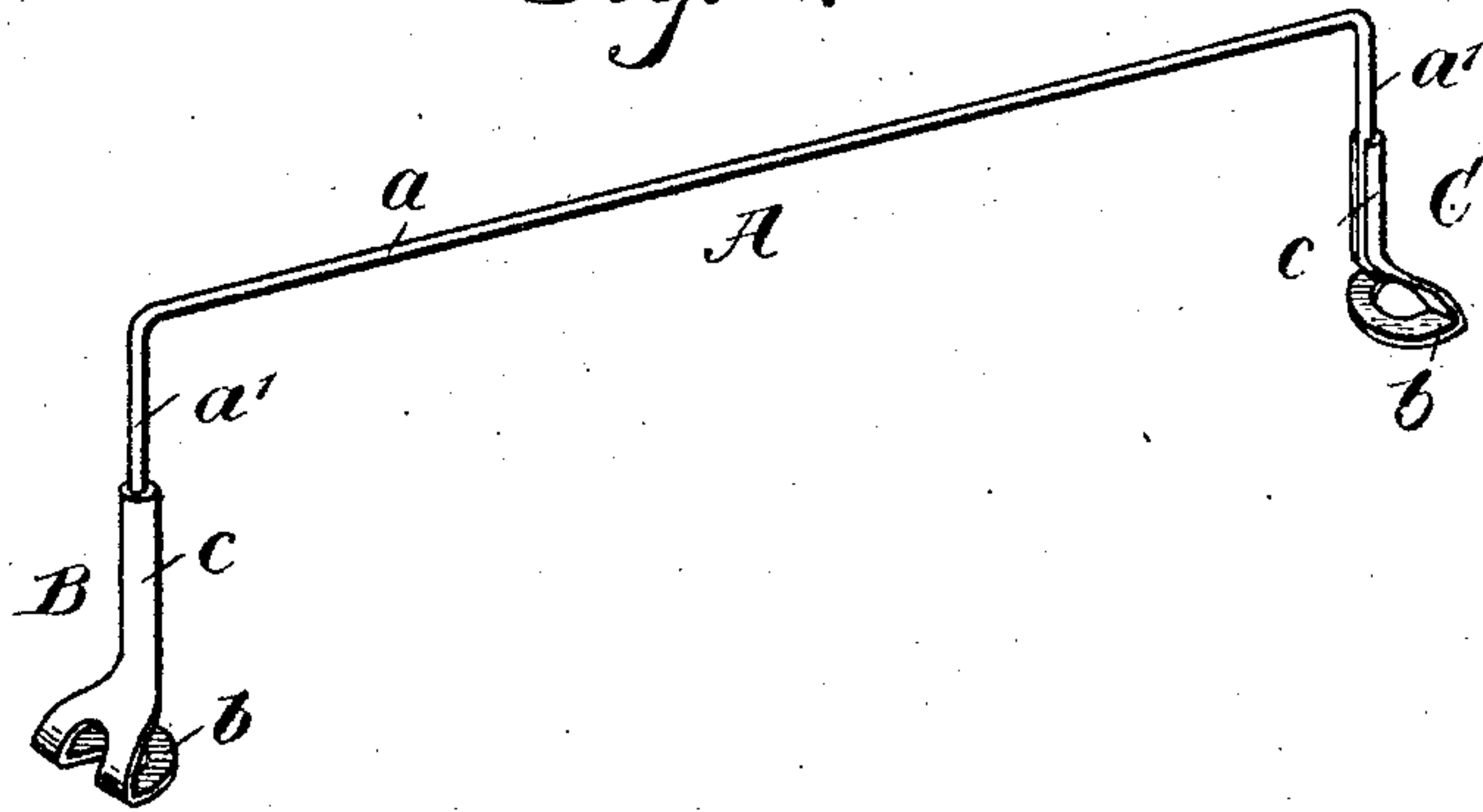
PATENTED OCT. 25, 1904.

A. J. WEED.  
NEGATIVE HOLDER.

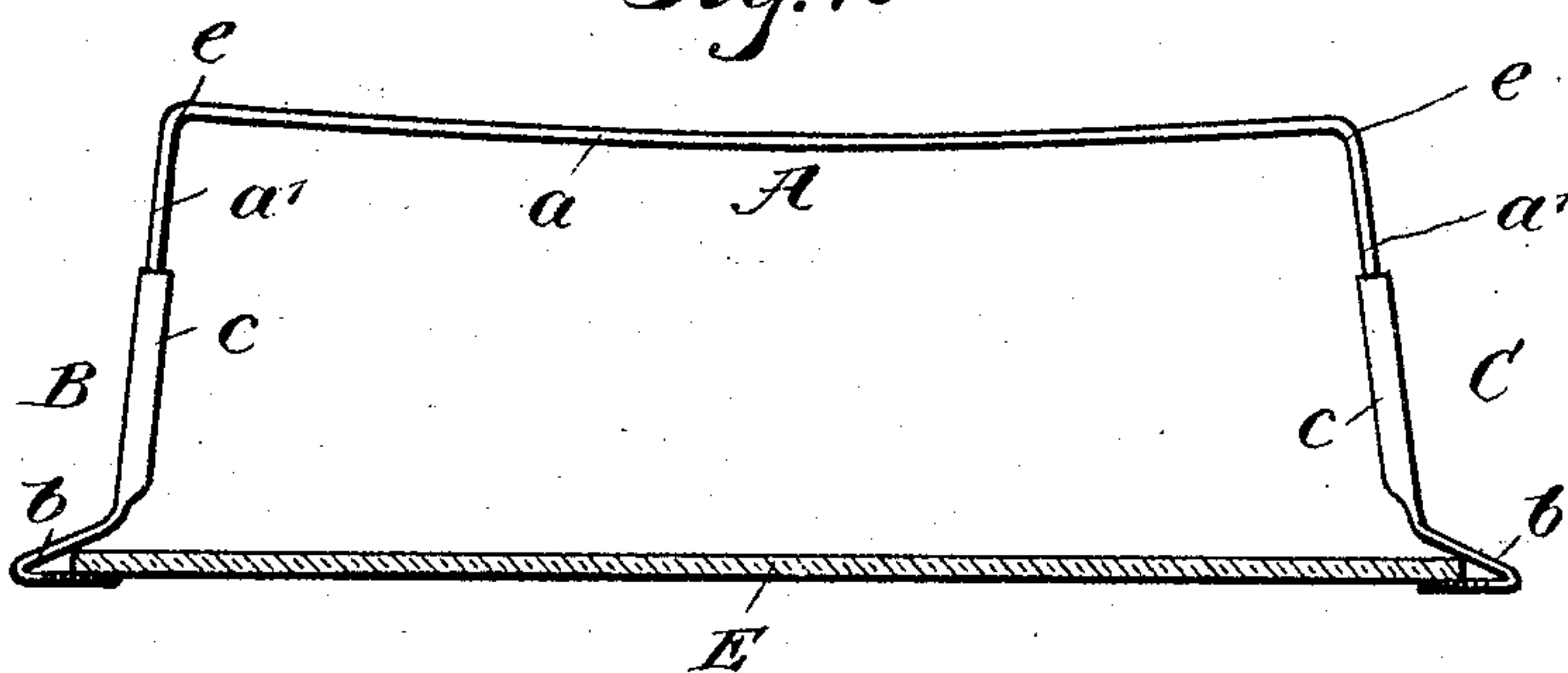
APPLICATION FILED NOV. 27, 1903. RENEWED AUG. 9, 1904.

NO MODEL.

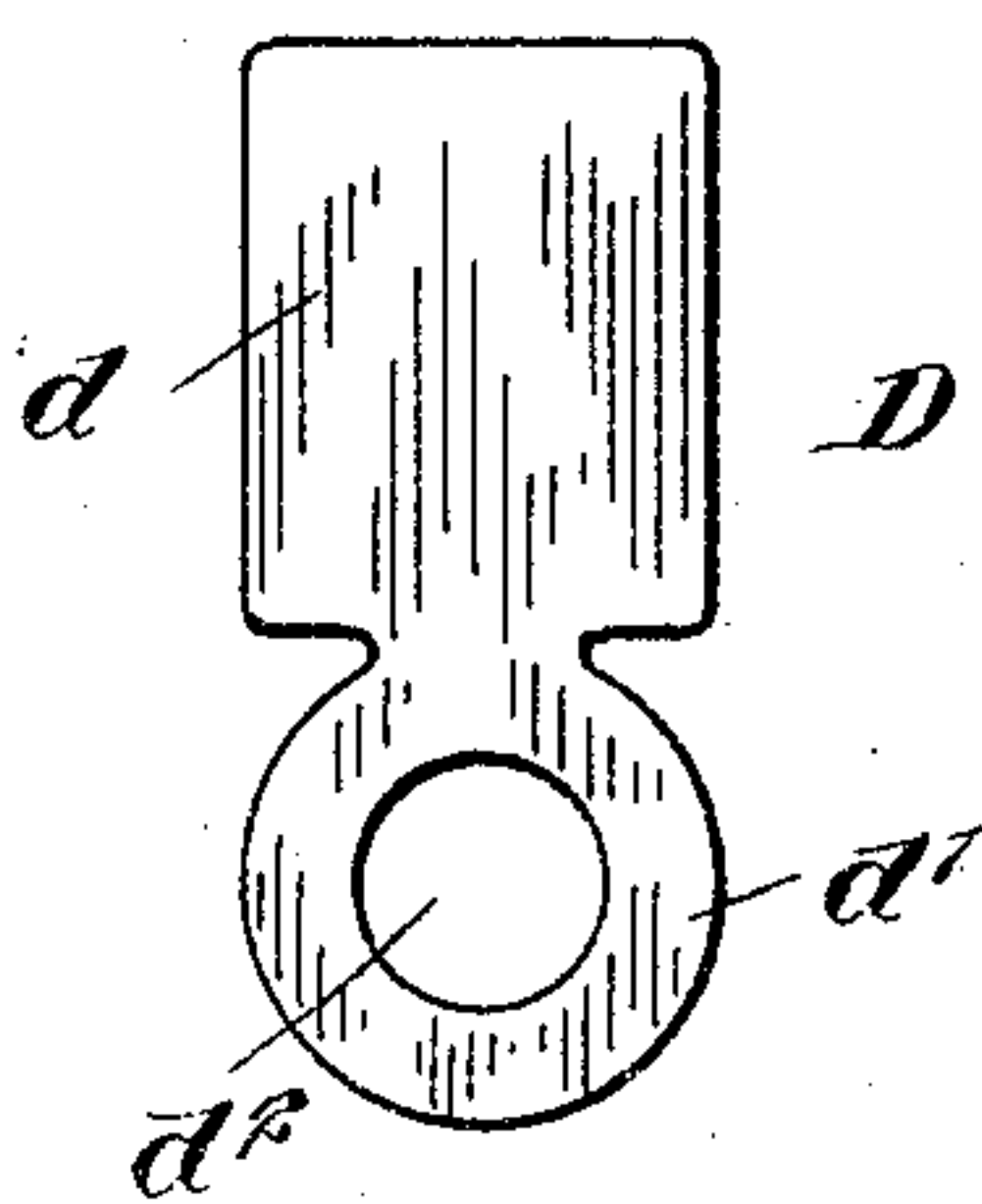
*Fig. 1.*



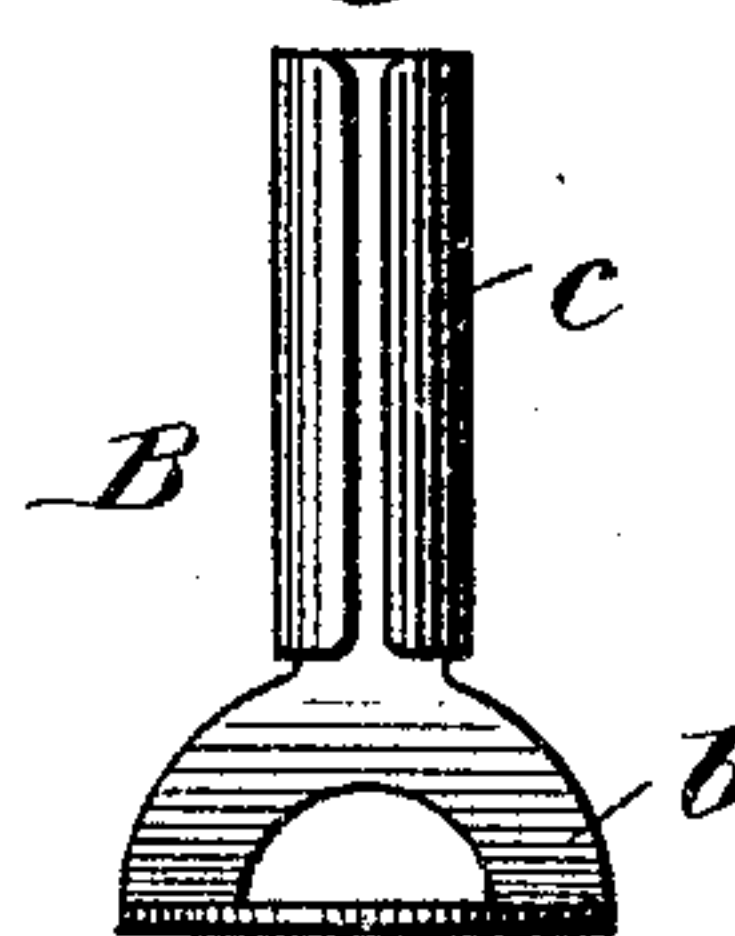
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ARTHUR J. WEED, OF NEW YORK, N. Y.

## NEGATIVE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 773,358, dated October 25, 1904.

Application filed November 27, 1903. Renewed August 9, 1904. Serial No. 220,072. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR J. WEED, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Negative-Holder, of which the following is a full, clear, and exact description.

My invention is an improved article for holding photographic plates during the operations of developing, fixing, and washing the sensitized surfaces thereof; and the object that I have in view is the provision of an extremely simple article which can be manufactured at a very low cost and which is capable of easy application to the edge portion of a plate for holding the latter in a secure manner.

A further object is to produce a holder which on its application to a plate is deflected or bent in a way to produce bearing-points or corners on which the holder when inverted may stand in a washing-bath, whereby the negative may be suspended with the film side facing downward in running water, so as to wash the film without exposing it to the lodgment of sediment in the water.

Further objects and advantages of the invention will appear in the course of the subsequent description, and the actual scope thereof will be defined by the annexed claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my improved plate or negative holder. Fig. 2 is a side elevation showing the positions assumed by the parts of the holder when it is applied to a plate or negative. Fig. 3 is an enlarged detail view of the blank for making the clip which forms a part of the improved holder, and Fig. 4 is an elevation of the clip made from the blank of Fig. 3.

The holder of my invention consists of a spring A and clips B C at the end portions of the spring, the detailed construction of which parts will now be described. The spring consists of a cross-bar  $a$  and arms  $a'$ , said bar and the arms being made from a single piece of

wire having the requisite elasticity. The bar  $a$  of the spring is straight between the arms, the latter being at right angles to said bar in the normal or unapplied condition of the holder.

Each clip B C is made from a single piece of sheet metal, which is first stamped or struck up in the form of a blank D, as represented by Fig. 3. Said blank D consists of a rectangular portion  $d$  and an approximately circular portion  $d'$ , the latter being formed with an opening  $d''$ , although this is not essential. The blank is stamped in a flat form from a piece of sheet metal by a suitable die or any other instrument, and subsequent to the stamping operation the blank is manipulated to produce the clip. The circular portion  $d'$  of the blank is bent or doubled upon itself, as shown by Figs. 2 and 3, so as to produce an angular foot-piece  $b$ , while the rectangular portion  $d$  of said blank is doubled in a way to produce a tubular shank  $c$ . The tubular shank  $c$  of the two clips receive the free ends of the arms  $a'$  of the spring A and the parts are united solidly by soldering, riveting, or otherwise affixing them, whereby the clips are attached to the spring so as to constitute an integral part of the holder.

The angular foot-pieces of the clips B C are disposed in opposing or facing relation, and each foot-piece is fashioned to produce a horizontal lower member and an inclined upper member, the members of the foot-piece lying at obtuse angles, as shown more clearly by Fig. 2. The peculiar form of the foot-pieces on the clips of the holder provides a construction which is adapted to have frictional engagement with a plate or negative, so as to prevent the latter from slipping out of the holder accidentally, the spring or elasticity of the bar  $a$  tending to hold the clips securely in engagement with the plate or negative.

In applying the improved holder to a photographic plate or negative, such as E in Fig. 2, the arms  $a'$  and the clips B C are sprung apart or spread sufficiently for the angular foot-pieces  $b$  to engage with the edge portions of said plate or negative, the latter resting on the lower members of the foot-pieces, while the upper inclined members of the foot-pieces



engage with the edges of the plate or negative on the film side thereof, as shown by Fig. 2. The operation of spreading the arms *a* and the clips B C bends or deflects the bar *a* of the spring from its straight condition, thus making the bar assume the curved or bowed form shown by Fig. 2. This bending of the spring-bar forms bearing-points or corners *e* at the angles of the spring A, and the holder, with the attached plate, may be inverted within a tray or other receptacle adapted to contain a washing-bath, whereby the inverted holder is adapted to rest on the bearing-points or corners *e* and maintain the plate or negative E in a position with its film side facing in a downward direction. This is advantageous, because the plate is supported or suspended within the bath in a way to prevent the lodgment or accumulation of sediment in the water from adhering to the film-surface of the plate during the operation of washing the latter.

The operation of my device is readily understood from the foregoing description. The holder can easily be applied to the plate so that the clips will engage with the edge portions of said plate, thus allowing the plate to be manipulated or handled and to be immersed in a developing bath or solution without requiring the operator to place the fingers in said solution. The plate can be worked or moved as desired, and it can be withdrawn from the bath to permit inspection of the film and ascertain the progress of the development. It is evident that the plate can be handled by the holder so as to wash it previous to immersing it in the fixing-bath, and said plate can also be placed or suspended in the fixing-bath to allow the latter to attack the film and complete the treatment of the negative. When it is desired to wash the negative subsequent

to its removal from the fixing-bath, the holder and the attached negative are inverted, and said holder is placed in a washing-tray so that its bearings or corners *e* will rest on the bottom of the tray, thus inverting the plate for the water to run against the under film side thereof.

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

1. As a new article of manufacture, a plate or negative holder, consisting of a spring having a straight cross-bar and arms at right angles to said cross-bar, and clips attached to the arms of the spring and adapted to be bent or deflected outwardly with said arms, such spreading of the arms and clips tending to deflect the straight cross-bar of the spring to a curved or bowed condition and producing bearing-points or corners at the angles of the spring.

2. As a new article of manufacture, a plate or negative holder consisting of a spring having arms at the end portions of a cross-bar, and sheet-metal clips attached to said arms, each clip having an angular foot-piece.

3. As a new article of manufacture, a plate or negative holder consisting of a spring, and clips attached to the respective end portions of said spring, each clip being made from a blank of sheet metal, said blank being doubled upon itself to produce an angular foot-piece and a tubular shank, the end portions of the spring being received in and soldered to the shanks of the clips.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ARTHUR J. WEED.

Witnesses:

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HENRY V. A. PARSELL.