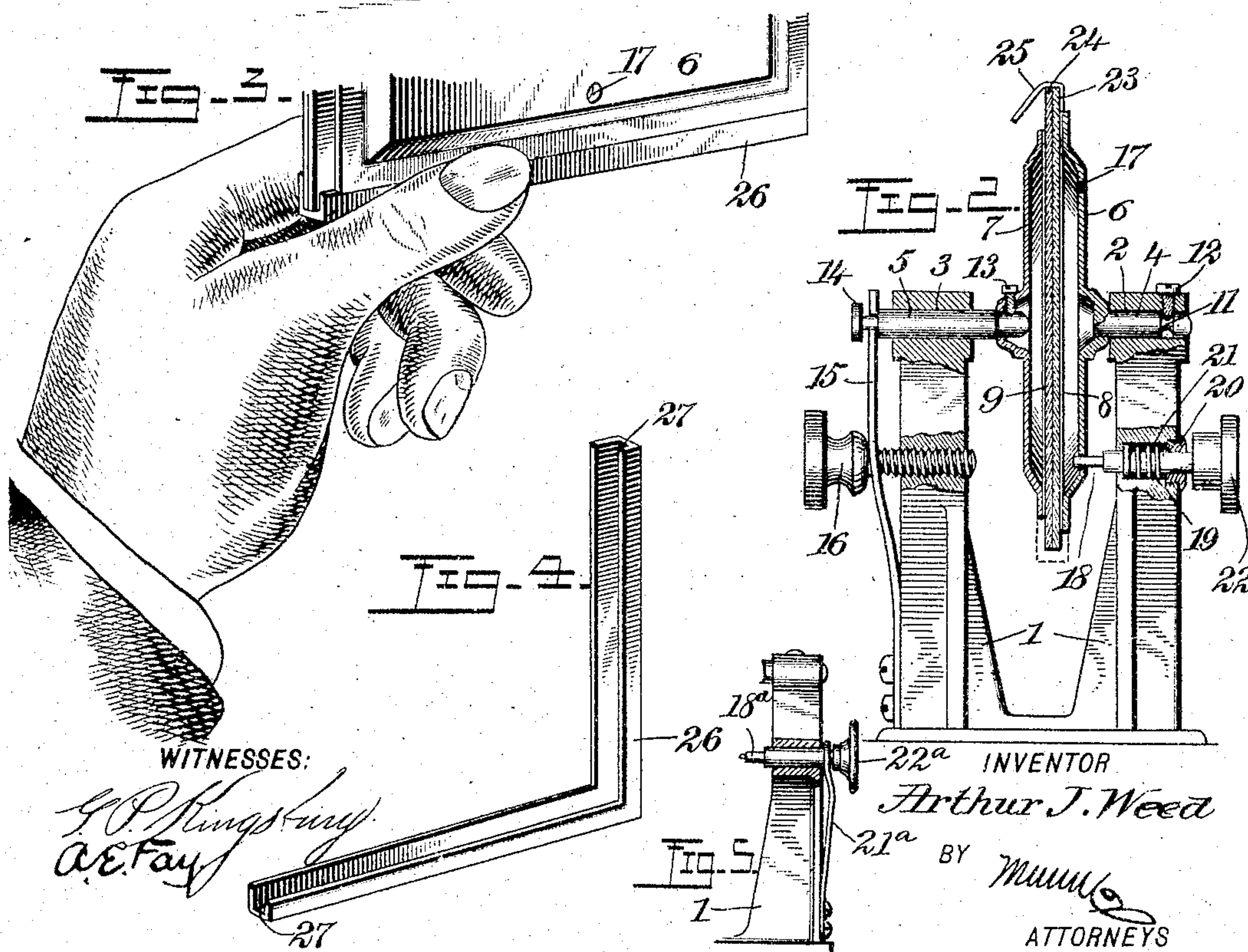
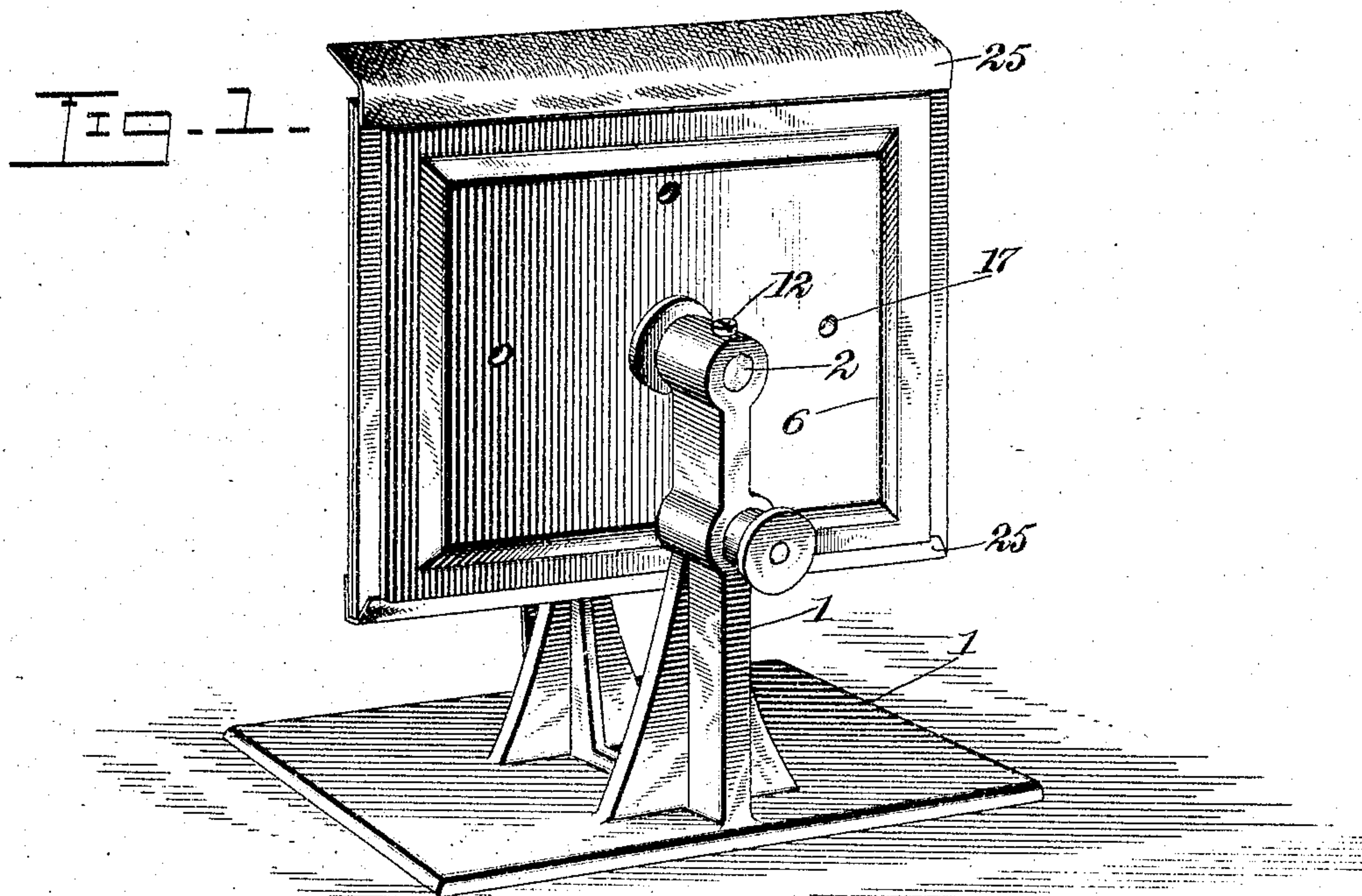


No. 780,393.

PATENTED JAN. 17, 1905.

A. J. WEED.
CLAMPING DEVICE.

APPLIOATION FILED MAR. 25, 1904.



WITNESSES:

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

CLAMPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 780,393, dated January 17, 1905.

Application filed March 25, 1904. Serial No. 199,959.

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 Clamping Device, of which the following is a full, clear, and exact description.

My invention relates to clamping devices in general, and is especially adapted to that class thereof used for holding articles securely in position relative to each other while their edges are operated upon in any way.

The particular use to which I consider my invention best adapted is the mounting of lantern-slides, and it is also well adapted for the manufacture of passe-partouts.

The objects of my invention are to clamp flat plates or other articles firmly in position relative to each other, to permit turning them to present different edges to the operating position without danger of slipping, to hold them in any number of predetermined positions, and at the same time to provide a gage for use when anything is to be applied to the articles operated upon.

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 a preferred form of my invention. Fig. 2 is a transverse sectional view of the same, showing parts in end elevation. Fig. 3 is a fragmentary view showing the method of using the gage-piece. Fig. 4 is a perspective view of the gage-piece, and Fig. 5 is a fragmentary view showing a modification.

In the drawings, 1 represents a standard or support which may be constructed in any manner and is preferably provided with two bearings 2 and 3, in which are journaled shafts 4 and 5. To these shafts are attached plates 6 and 7, respectively; but these plates may be integral with the shafts, if desired, as shown in the case of the plate 6 and the shaft 4. These plates are preferably shaped in the manner shown, so as to present bearing-surfaces toward other, and these bearing-surfaces may be covered, if desired, with cushions 8 and 9,

formed of strips of rubber, textile, or other soft material for the purpose of preventing the marring of the articles to be held between them. The shaft 4 is preferably guided in its bearing, and this may be done by means of a groove 11 on the shaft and a screw 12 in the standard, as shown. One means of attaching the plates to the two shafts is shown on the left of Fig. 2 and consists of a screw 13, passing through a hub on the plate 7 and coming into contact with the shaft 5. The shaft 5 is preferably provided with an enlarged head 14 and is adapted to be forced inward to secure clamping action by means of a spring 15, contacting with a shoulder under the head 14. This spring is operated by means of a screw 16 or by any desired adjusting device. The plate 6 is adapted to be held in any number of positions in order that the different edges of the articles to be operated upon may be presented upwardly. A preferred means for accomplishing this purpose is illustrated as consisting of a series of holes 17 in the plate 6 and a pin 18, mounted in the standard 1 and adapted to pass into any one of the holes to secure the device in the desired position in an obvious manner. This pin 18 is passed through a chamber 19 in the standard, which is closed by a plug 20, and a spring 21 is provided to operate the pin and force it into the position shown in Fig. 2. The pin is preferably provided with a head 22 for convenience in operation.

In the form shown in the drawings two plates 23 and 24 are shown as being operated upon. These plates may be of any desired character; but they will be described as the two plates forming an ordinary lantern-slide, the image being upon one of them and the other being used to cover and protect it. About the edges of these plates are to be placed pieces of paper 25 or other flexible material, which are to be pasted to the plates for the purpose of securely holding them together.

26 represents a gage which will be used to position the plates 23 24 with respect to the holder 6 7 and with respect to each other. In using the gage the plates will be placed in it with two edges brought into contact with

and resting on its internal groove 27, and then the gage supporting the plates will be placed in position with respect to the holder, as shown in Fig. 3. The parts will be of such dimensions that the edges of the plates will project the same distances all around the holder, as shown in Fig. 4. While in this position the screw 16 is operated to firmly clamp the parts together, and then the gage 26 is removed from the position shown in dotted lines in Fig. 2. The strips of paper or other material 25 can then be placed upon and pasted to the edges of the plates, as shown in Figs. 1 and 2.

It will be seen that on account of the difference in size of the plates 6 and 7 the paper strips 25 will be allowed to lap farther over upon one of the plates than upon the other. It will also be seen that the holder acts as a gage for determining the position of the strips 25 with respect to the plates. When a strip has been placed across the top of the plates, the holder can be revolved ninety or one hundred and eighty degrees and the pin 18 used to hold it in a new position, so that the second strip can be placed upon a different edge of the plates. This will of course be repeated until all the edges are covered, if desired. In the modification shown in Fig. 5 the pin 18^a has a head 22^a and is pressed inwardly by a spring 21^a.

The drawings illustrate the principle of my invention and one specific manner in which I have contemplated applying it. I do not wish to be limited, however, to the specific use referred to nor to the details of construction shown, as many other uses will be possible and many modifications may be made without departing from the spirit of my invention as set forth in the appended claims.

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

1. In a clamping device, a holder comprising two parts each having surfaces adapted to bear upon the article to be clamped near its edges, and a central portion in a different plane from said bearing-surfaces, one of said parts being smaller than the other.

2. In a clamping device, a holder comprising two parts each having surfaces adapted to bear upon the article to be clamped, and a central portion in a different plane from said bearing-surfaces, one of said parts being smaller than the other, and means for rotatably supporting said holder.

3. In a lantern-slide-clamping device, the combination of a rotatable holder comprising two complementary plates, each having opposed continuous bearing-surfaces at its edges, the interior portion of each plate being in a different plane from said bearing-surfaces, cushions on said bearing-surfaces, adjustable means for forcing one of the plates toward the other, one of said plates having a series of perforations, a bolt adapted to enter said perforations to secure the clamping device in different positions, and a spring for holding said bolt in place.

4. A clamping device comprising a holder having two parts, each having surfaces adapted to bear upon the article to be clamped and a central portion in a different plane from said bearing-surfaces, one of said parts having a series of perforations, a bolt adapted to enter said perforations to secure the clamping device in different positions, a spring for holding said bolt in place, and means for rotatably supporting the holder.

5. In a lantern-slide-clamping device, the combination of a rotatable holder comprising two complementary plates, each having opposed continuous bearing-surfaces at its edges, the interior portion of each plate being in a different plane from said bearing-surfaces, cushions on said bearing-surfaces, one of said plates having a shaft integral therewith, the other plate having a shaft removably secured thereto, bearings for said shafts, and means for forcing one shaft toward the other.

6. A clamping device comprising a holder having two parts each having surfaces adapted to bear upon the article to be clamped, and a central portion in a different plane from said bearing-surface, one of said parts being smaller than the other and having a shaft removably secured thereto, the other part having a shaft integrally mounted thereon, a frame having bearings for supporting said shafts in line with each other, yielding means for normally forcing one shaft toward the other, and means for preventing longitudinal movement of the other shaft.

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

ARTHUR J. WEED.

Witnesses:

F. W. HANAFORD,
EVERARD BOLTON MARSHALL.