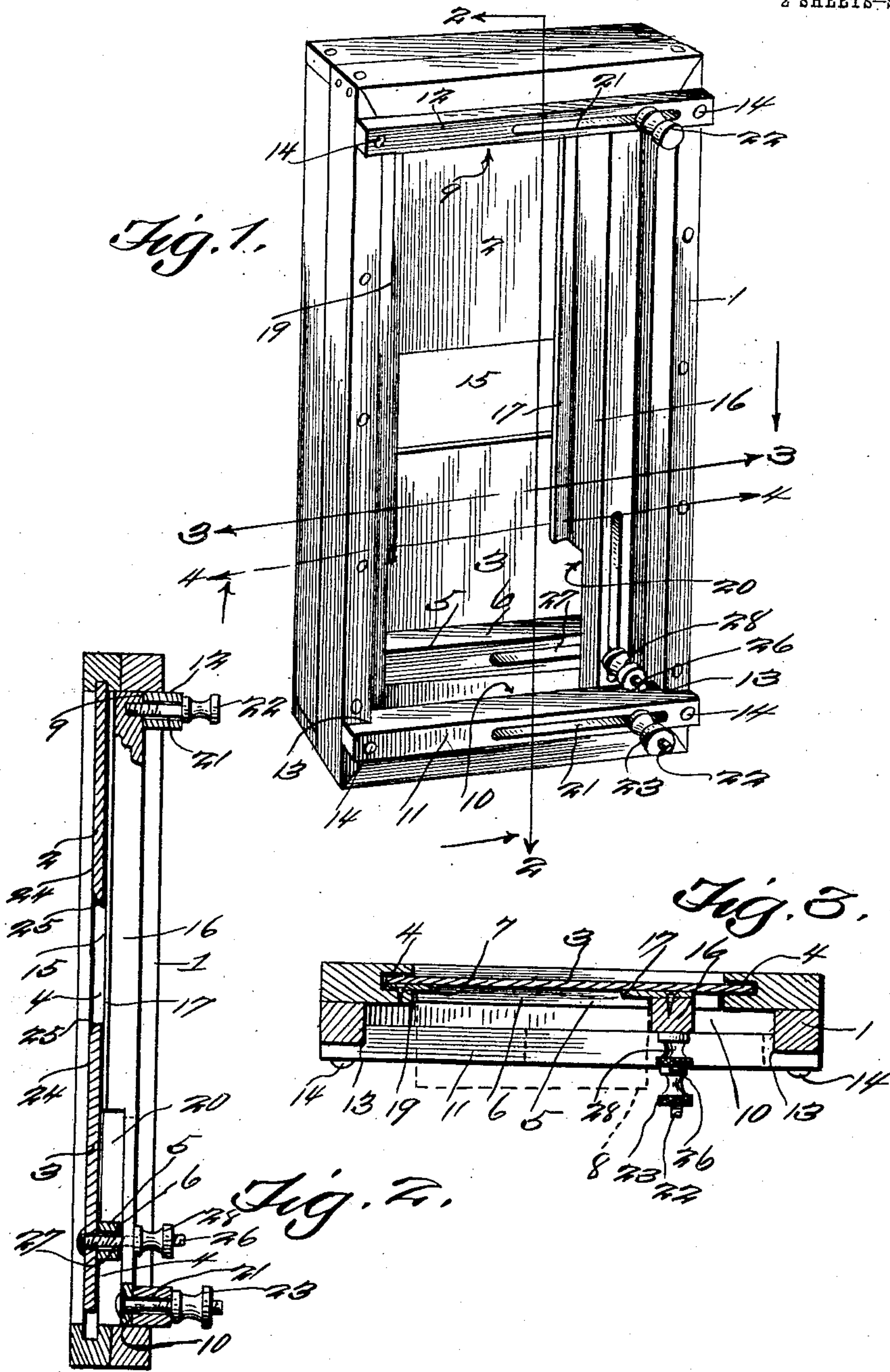


J. F. CURTIS.
PHOTOPRINTING FRAME.
APPLICATION FILED JUNE 16, 1909.

973,764.

Patented Oct. 25, 1910.

2 SHEETS-SHEET 1.



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2 SHEETS-SHEET 2.

Fig. 4.

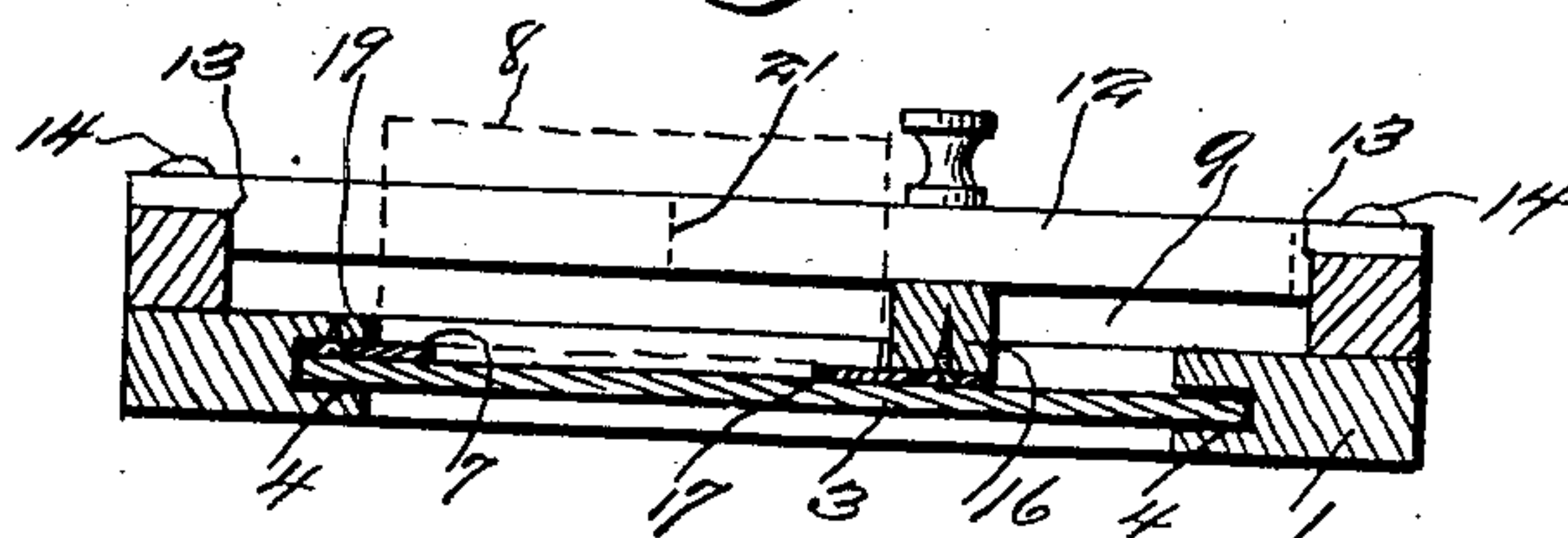


Fig. 6.

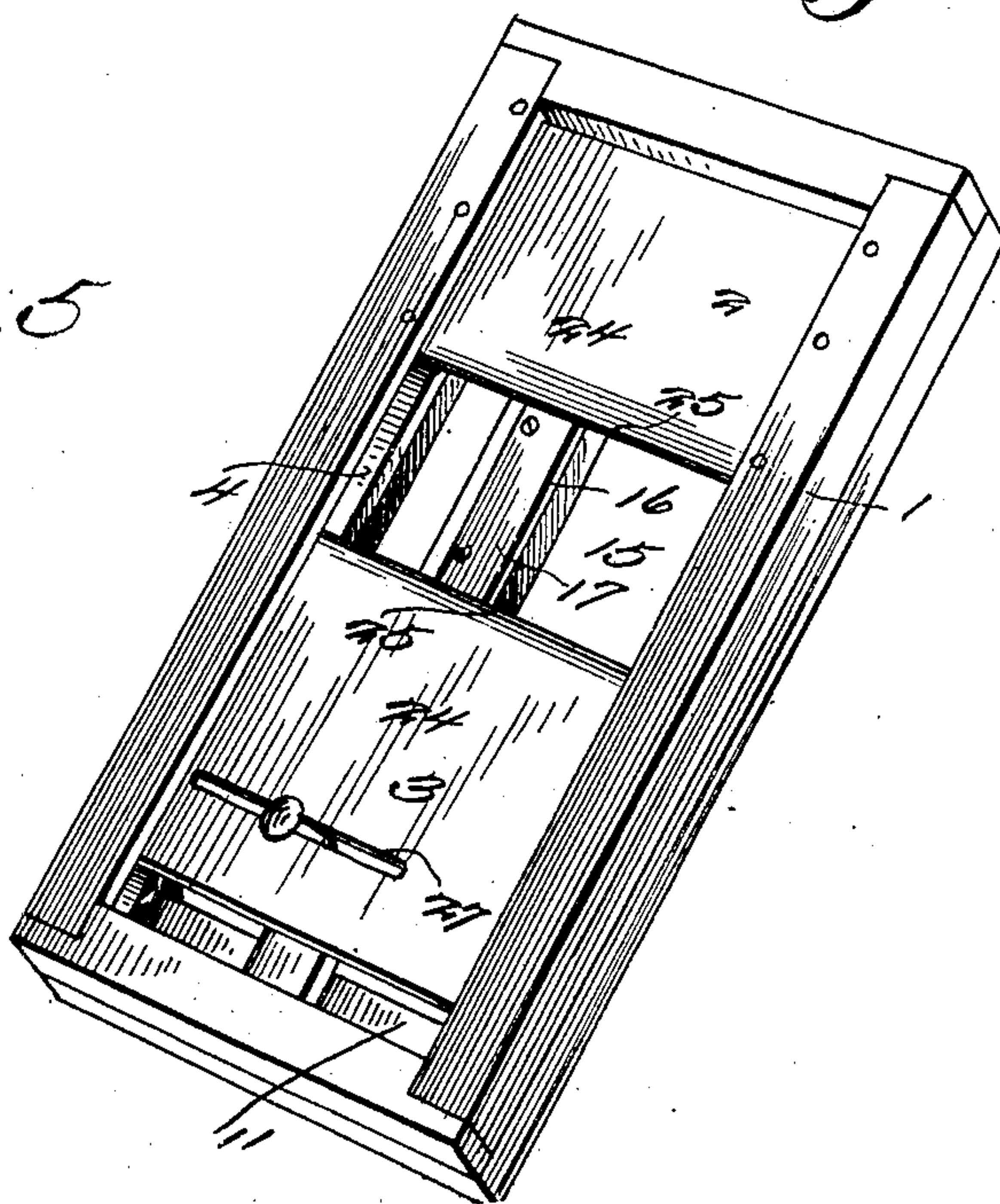
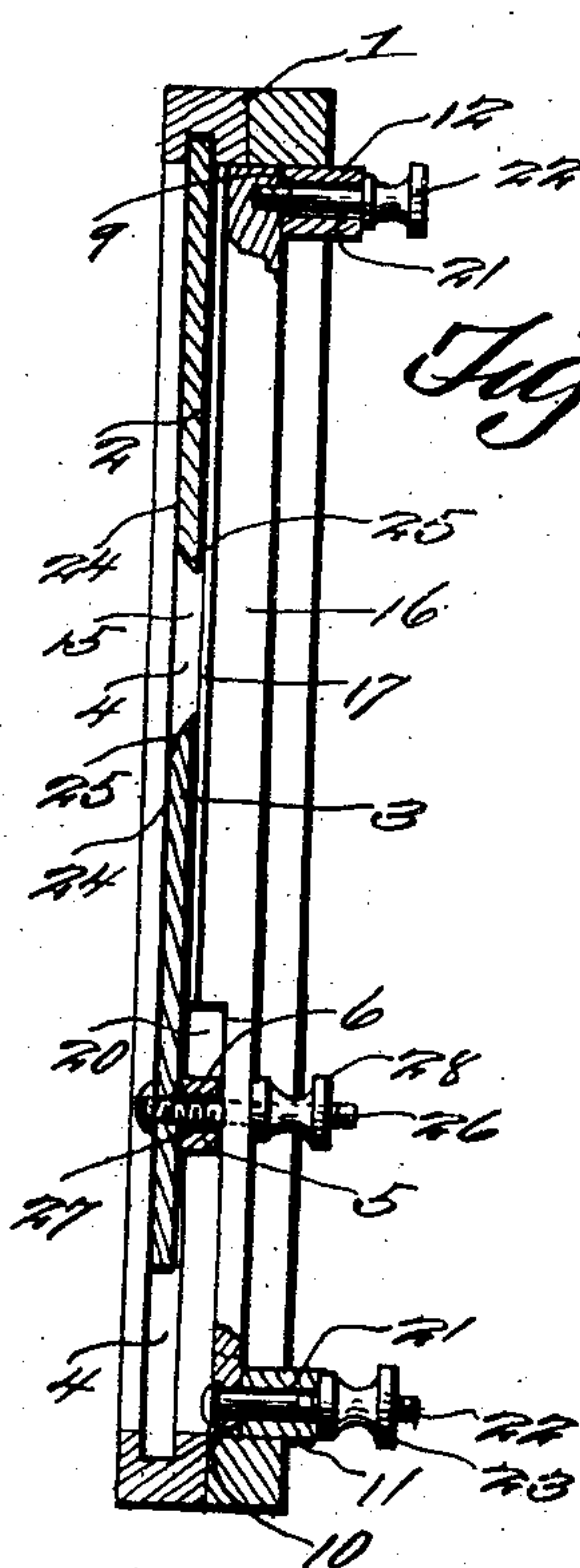


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN FRANKLIN CURTIS, OF MACCLENNY, FLORIDA.

PHOTOPRINTING-FRAME.

973,764.

Specification of Letters Patent.

Patented Oct. 25, 1910.

Application filed June 16, 1909. Serial No. 502,610.

To all whom it may concern:

Be it known that I, JOHN F. CURTIS, a citizen of the United States, residing at Macclenny, in the county of Baker and State of Florida, have invented a new and useful Photoprinting-Frame; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same.

This invention pertains to photographic printing and particularly to a device in which photographic printing frames may be placed for movement, in order that the photographic paper may be printed.

The object of the invention is to provide a device comprising a frame having adjustable members in order to accommodate printing frames of various sizes, and to provide an adjustable slide in order to regulate an opening through which the photographic paper may be exposed.

A further object of the invention is to print photographic paper by natural light, in lieu of artificial light, which is now generally utilized.

This invention comprises further objects and combinations of elements, which will be hereinafter more fully described, shown in the accompanying drawings, and the novel features thereof will be pointed out by the appended claims.

The features, elements and the arrangement thereof, which constitute the above-entitled invention, may be changed and varied, in an actual reduction to practice, the understanding, however, being that the changes and variations accruing from said reduction to practice are comprehended by the appended claims.

To obtain a full and correct understanding of the details of construction, combinations of features, elements and advantages, reference is to be had to the hereinafter set forth description and the accompanying drawings in connection therewith, wherein—

Figure 1 is a perspective view of the frame of the device, in which the usual printing frames may be disposed for developing or printing photographic paper. Fig. 2 is a longitudinal sectional view upon line 2—2 of Fig. 1, in order to further illustrate the structure of the device. Fig. 3 is a transverse sectional view on line 3—3 of Fig. 1, further illustrating the structure of the

frame of the device, and showing one of the adjustable members adjusted to receive one size of printing frame. Fig. 4 is a view similar to Fig. 3 looking in an opposite direction to that of the view shown in Fig. 3, showing the adjustable member adjusted for a different size of printing frame. Fig. 5 is a view similar to Fig. 2, illustrating the slide in a different position, thereby showing the opening through which the photographic paper is exposed as being restricted to that shown in Fig. 2. Fig. 6 is a perspective view of the device looking at the side opposite to that shown in Fig. 1.

Referring to the annexed illustrations, 1 designates a rectangular frame having an immovable shutter 2, and provided with a movable shutter or slide 3. This movable shutter is mounted in guideways 4 of the frame, as clearly shown in the sectional views of the drawings, and is provided with a transverse member 5, forming a hand-hold 6, by which the movable shutter or slide may be manipulated, in order to regulate the opening between the immovable and movable shutters. Fixed in one of the guideways is a metallic strip 7, upon which one edge of the printing frame 8 rests, and is guided thereby, in order that the said printing frame will not contact with the adjacent edges of the immovable and movable shutters, as the printing frame is quickly moved by the opening.

The frame of the device, at either end thereof, is provided with guideways 9 and 10, which are formed by the transverse members 11 and 12. These members 11 and 12 are recessed at their ends, as seen at 13, to receive the sides of the frame of the device; said transverse members 11 and 12 are secured to the frame by means of suitable screws or other means 14. The transverse member 5, forming the hand-hold, acts as the bottom of the guideway 10, as shown clearly in the drawings.

The adjustable shutter or slide regulates the opening 15 between the shutters in one direction, while the sliding member 16, which is movable in the guideways 9 and 10, regulates the opening in the opposite direction, as will be clearly understood. This movable member 16 also regulates the space in which the printing frame operates, and is provided with a metallic strip 17, which is arranged opposite the metallic strip

7, and performs the function of a rest and a guide on which the printing frame may slide, as shown clearly in the drawings.

The frame of the device is provided with a shoulder 19 adjacent the metallic strip 7, against which the printing frame engages, while the movable member 16 is engaged by the opposite edge of the printing frame, as will be evident. By the shoulder 19 and the movable or sliding member 16, the printing frame may be guided directly over the opening, in order that the photographic paper may be evenly exposed to the light. The movable or sliding member is provided with a recess 20 upon its under surface and at one end thereof, in order to admit of the transverse member 5, so that the movable shutter may be easily manipulated. To hold the movable or sliding member in its adjusted positions, the transverse members 11 and 12 are slotted, as seen at 21, to receive the bolts 22, which are carried by the movable or sliding member. These bolts have threaded thereto thumb nuts 23, and, by their manipulation, the sliding or movable member may be held in adjusted positions. The said thumb nuts, when tightened, are designed to engage the upper surface of the transverse members 11 and 12.

The faces 24 of the immovable and movable shutters are beveled off to their adjacent edges, as seen at 25, in order that the rays of light may be fully admitted to the photographic paper, in order to properly print the picture.

Any size of printing frame may be used in conjunction with this device, as will be clearly manifest. A printing frame is placed in position so that its sides may contact with and be guided by the shoulder 19 and the movable or sliding member 16, that is to say, after the sliding or movable member has been properly adjusted, and also after the movable shutter is adjusted, after which the printing frame is moved over the opening, at a sufficient rate of speed to attain the proper printing of the photographic paper. The movement of the printing frame over the opening, and the size of said opening, depends largely upon the degree of the natural light, that nature at different times may afford, which depends largely upon the weather.

From the foregoing, the essential features,

elements and the operation of the device, together with the simplicity thereof, will be clearly apparent.

The movable shutter is provided with means 26, which projects through an elongated opening 27 of the sliding or movable member, and threaded upon the means 26 is a member 28, by the manipulation of which the movable shutter may be held in adjusted positions.

Having thus fully described the invention, what is claimed as new and useful is:—

1. In combination, a frame having an opening, slotted members for the frame, a fixed shutter on the frame, a movable shutter adapted to vary the area of the opening, means engaging the slotted members for securing in adjusted position the movable shutter and guideways on the frame adapted to hold a photographic printing frame in a movable position over said opening.

2. In combination, a frame having an opening, slotted members for the frame, a fixed shutter for the opening, a movable shutter for the opening, and adjustable means engaging the slotted members for holding a photographic printing frame in movable position over the opening.

3. In combination, a frame having an opening therein, slotted members for the frame, a fixed shutter on the frame, a movable shutter for varying the area of the opening, screws movable on the slotted members for adjustably securing the movable shutter, and means for movably holding a photographic printing frame over the opening.

4. In combination, a frame having an opening therein, a fixed shutter on the frame, a movable shutter on the frame having a slotted member extending transversely of the frame, means extending through said slotted member adapted to hold the movable shutter in adjusted positions, a member movable transversely of the movable shutter and means for holding the transversely moving member in adjusted positions.

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

JOHN FRANKLIN CURTIS.

Witnesses:

A. J. MOBLEY,
J. H. SWEAT.