

(No Model.)

G. JONES.
PHOTOGRAPHIC ROLL PAPER HOLDER.

No. 450,794.

Patented Apr. 21, 1891.

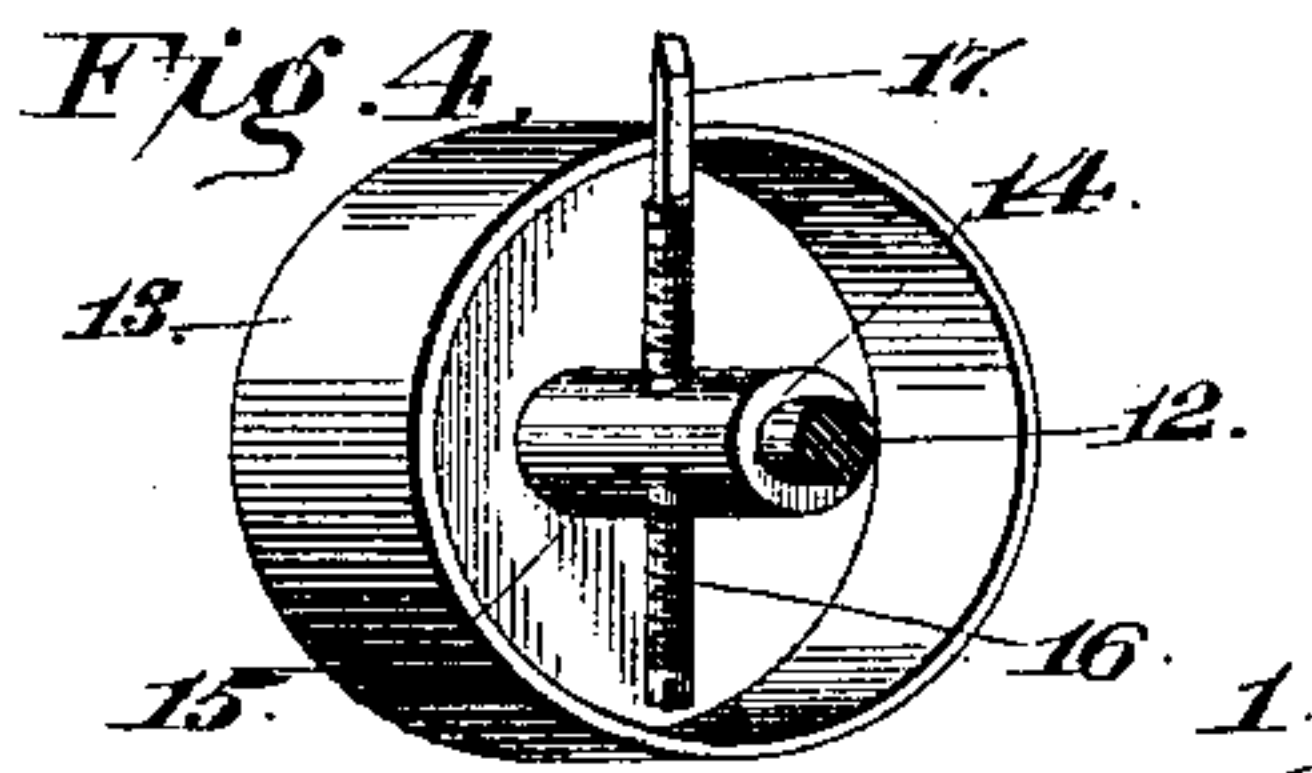


Fig. 1.

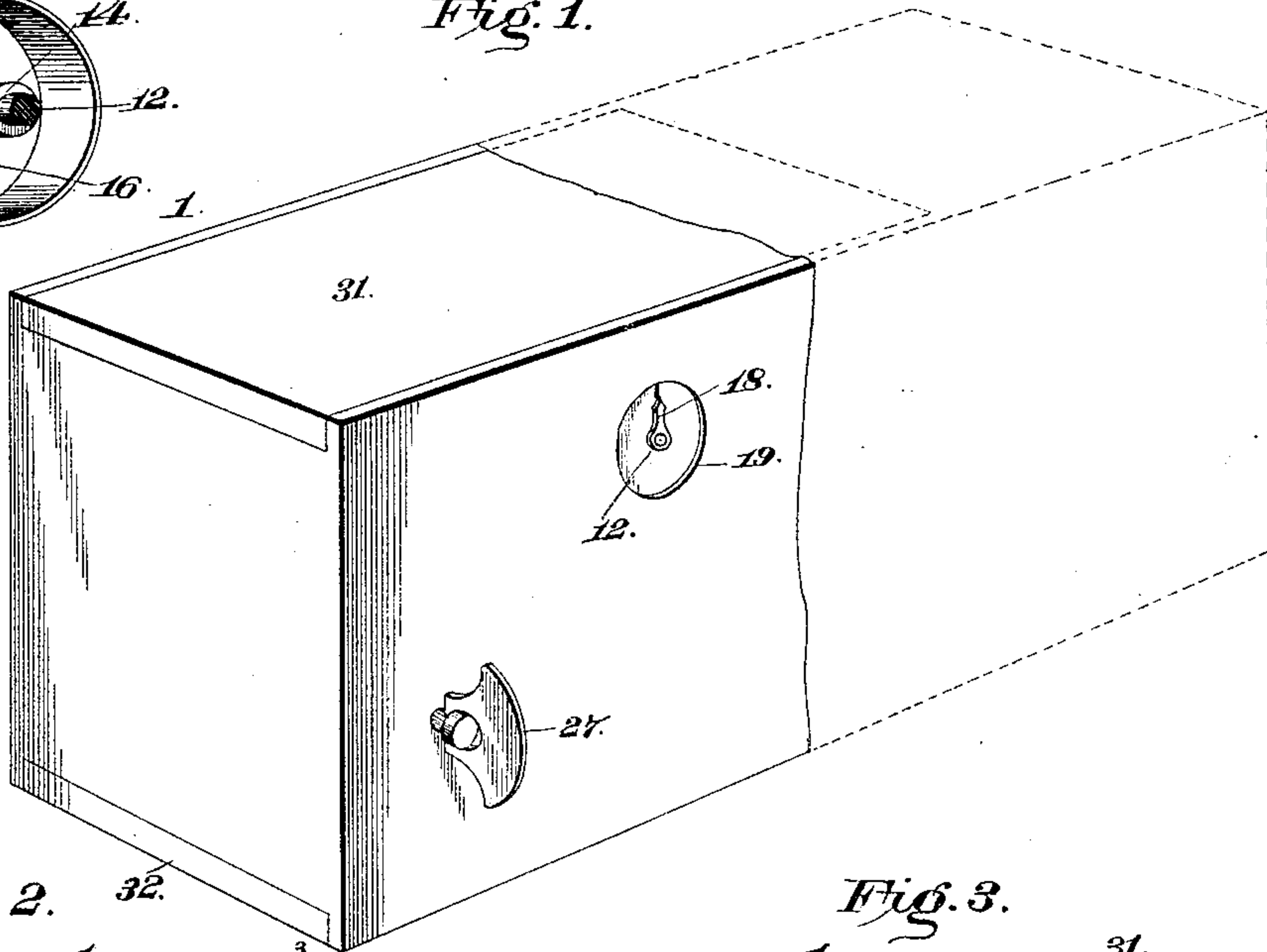
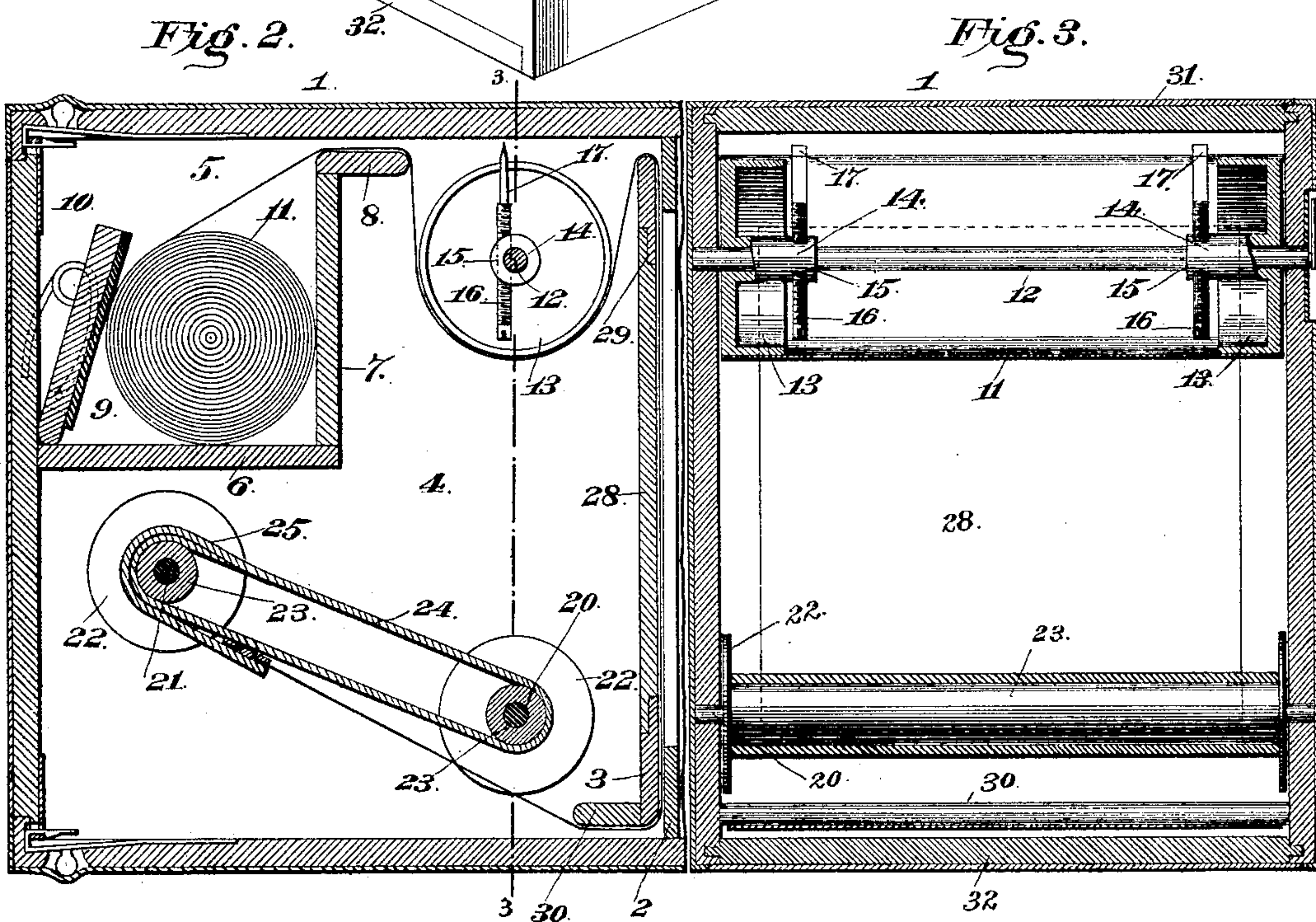


Fig. 2.



Witnesses

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GEORGE JONES, OF ROCHESTER, NEW YORK.

PHOTOGRAPHIC ROLL-PAPER HOLDER.

SPECIFICATION forming part of Letters Patent No. 450,794, dated April 21, 1891.

Application filed August 20, 1890. Serial No. 362,531. (No model.)

To all whom it may concern:

Be it known that I, GEORGE JONES, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented a new and useful Photographic Roll-Paper Holder, of which the following is a specification.

This invention relates to that class of photographic cameras in which sensitized film or paper for a number of pictures is carried upon a roller from which it is gradually unwound after each exposure; and it has for its object to provide a camera of simple and convenient construction, which shall admit of the strip of film or paper being easily and safely manipulated, which shall keep the said strip at proper tension during exposure, and which shall accurately mark the said strip to show where it is to be cut after exposure and previous to developing the negatives.

With these ends in view the invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a perspective view of a camera-box equipped with my improvements. Fig. 2 is a sectional view taken longitudinally and vertically through the rear end of the box, where the parts constituting my invention are located. Fig. 3 is a vertical transverse sectional view taken on the line 3 3 in Fig. 2. Fig. 4 is a perspective detail view of one of the tension-wheels and marking devices.

Like numerals of reference indicate like parts in all the figures.

1 designates the box or casing of my improved camera, which is preferably rectangular in shape. The front part of the casing, which is shown in dotted lines in Fig. 1, contains the lens-carrying frame and the mechanism for adjusting or focusing the same; but these parts are to be of ordinary well-known construction, and as they form no part of my present invention they have not been shown in the drawings hereto annexed. The rear end of the camera-box is separated from the front compartment by the transverse frames

2 and 3, which are placed quite closely together and are attached to the sides of the box. The rear compartment 4 thus formed is provided at its upper rear end with a sub-compartment 5, formed by a shelf 6, and an approximately vertical partition-wall 7, which is provided at its upper edge with a horizontal flange 8. At the bottom of said sub-compartment is hinged a plate 9, actuated by suitably-arranged springs 10 to bear or press against the roll 11 of sensitized paper or film, which is placed in the said compartment 5.

12 designates a shaft which is journaled transversely in the compartment 4 in front of the partition 7. Said shaft carries at its ends the wheels or drums 13, the hubs of which 14 have transverse screw-threaded perforations 15, through which pass the screw-threaded pins 16, having sharpened ends or points 17, which may be adjusted so as to project any desired distance beyond the peripheries of the wheels or drums. The latter should be of a circumference exactly equal to the length of film which it is desired to use at each exposure. One end of the shaft 12 extends through the side of the box and carries a pointer 18, which shows upon a dial 19 when a complete revolution of the shaft 12 has been made.

A pair of shafts 20 and 21, provided at their ends with flanges 22, are journaled in the lower part of the compartment 4, and said shafts carry the drums 23, over which passes an endless band or belt 24, having an extending flap 25, which is provided at its end with several transverse metal strips 26 or other means for the convenient attachment of the end of the strip of film, which is simply passed under one of the said strips, as will be seen in Fig. 2 of the drawings. One of the shafts 21 extends through the side of the box or casing and is provided with a handle 27, by which it may be manipulated to wind the film, after exposure, upon the endless belt 24.

28 designates a plate of any suitable material, which is provided with rabbeted edges 29, by which it is fitted neatly in the correspondingly-rabbeted frame 3, where it forms a permanent backing for the film. Said par-

tition-frame 3 does not extend entirely to the top or bottom of the casing, sufficient room being left open for the passage of the film. At the lower edge of said frame is also arranged a guide-flange 30, under which the film is guided. Slide-covers 31 and 32 are provided for the top and bottom of the casing.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains. The roll of film having been placed in the box or compartment 5, where it is held by the spring-actuated plate 9, the end of the strip is passed over the flange 8, under the wheels or drums 13, over the upper edge of the frame 3, down between the frames 2 and 3, in front of the backing-plate 28, under the flange 30, and to the endless belt 24, to which it is attached, as already described. Previous to this, however, the camera has to be properly focused, and it is for this reason that the backing plate or partition 28 is not made integral with the frame 3, a ground glass being first placed in the said frame to enable the operator to properly adjust and focus the lens; but this having been done, the plate 28 is substituted for the ground glass and permanently retained. After each exposure the shaft 21 is rotated by means of the handle 27 to wind a portion of the film upon the endless belt or band, the pointer 18 indicating upon the dial 19 when the shaft 12, carrying the drums 13, has made a complete revolution, which, as above stated, is necessary to measure off the piece of film required for an exposure. During the rotation of the shaft 12 the sharp-edged pins 16 puncture the film, it being obvious that said pins are to be so arranged as to puncture the film between the portions that will be exposed to indicate where it is afterward to be cut. Said pins may be adjusted, as described, to make large or small punctures, as desired. The wheels or drums 13 serve not only to guide the film, but also to keep it stretched with the requisite degree of tension, the several guide-flanges over which the film passes serving to keep it flat and smooth. The endless belt, upon which I wind the film after exposure, will hold a large quantity of the film, and will keep it comparatively smooth and in good condition. By the use of said belt, in combination with the guide rollers or drums 13, tension devices for keeping the exposed portion of the film smooth and taut may be dispensed with, the spring-actuated plate 9 being used for the purpose of retaining the roll of film in its compartment 5 only. I desire it to be understood that I reserve the right to any changes and modifications in the construction of the mechanical details of the device which may be resorted to without departing from the spirit of my invention.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination, with the camera-box, of the partition-frames or guide-frames, the horizontal shell and the vertical partition-wall forming the film-compartment at the upper rear end of the casing, the spring-actuated plate arranged in the said compartment, the horizontal flanges 8, arranged at the upper edge of said vertical partition, and a film-winding device, substantially as set forth.

2. The combination, with the camera box or casing having the partition-frames or guide-frames and the film-compartment, of the intermediately-arranged shaft having the wheels or drums, the marking-pins, and a pointer at its projecting end, and a dial mounted upon the box under said pointer, substantially as set forth.

3. In a photographic camera of the class described, the transverse shaft having the guide-drums or tension-drums, in combination with the transversely-adjustable screw-threaded pins or markers, substantially as and for the purpose set forth.

4. In combination with a photographic camera, the film-winding device consisting of an endless belt or band having a loose extending flap provided with means for the attachment of the end of the strip of film, substantially as set forth.

5. In combination with a photographic camera, the film-winding device consisting of an endless belt or band having a loose extending flap provided with transverse strips for the attachment of the strip of film, substantially as set forth.

6. The combination of the film-compartment, the transverse partition-frames or guide-frames, the intermediately-arranged shaft having the drums and the adjustable marking-pins, and the endless belt or band forming the film-winding device, substantially as set forth.

7. In a photographic camera of the class herein described, the combination, with the film-compartment and suitable film-guides, of the film-winding device consisting of a pair of shafts having rollers and an endless belt or band passing over said rollers and provided with means for the attachment of the strip of film, one of said shafts being extended through the side of the box or casing and provided with a suitable handle, substantially as and for the purpose set forth.

8. In a photographic camera of the class herein described, the combination of the box or casing having the partition-frames or guide-frames and the film-compartment, the spring-actuated plate mounted in the bottom of the latter, the transverse shaft arranged intermediately between the partition-frames and the film-box and having the wheels or drums and the adjustable marking-pins, the

guide-flanges arranged at the upper edge of
the film-compartment and at the lower edge
of the rear partition-frame, and the film-
winding device consisting of an endless belt
5 or band mounted upon suitable shafts or roll-
ers and having means for the attachment of
the end of the strip of film, substantially as
and for the purpose herein set forth.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in 10
presence of two witnesses.

GEO. JONES.

Witnesses:

E. M. WADSWORTH,
W. P. HAMLIN.