

(No Model.)

D. H. HOUSTON.  
PHOTOGRAPHIC APPARATUS.

No. 248,179.

Patented Oct. 11, 1881.

Fig. 1.

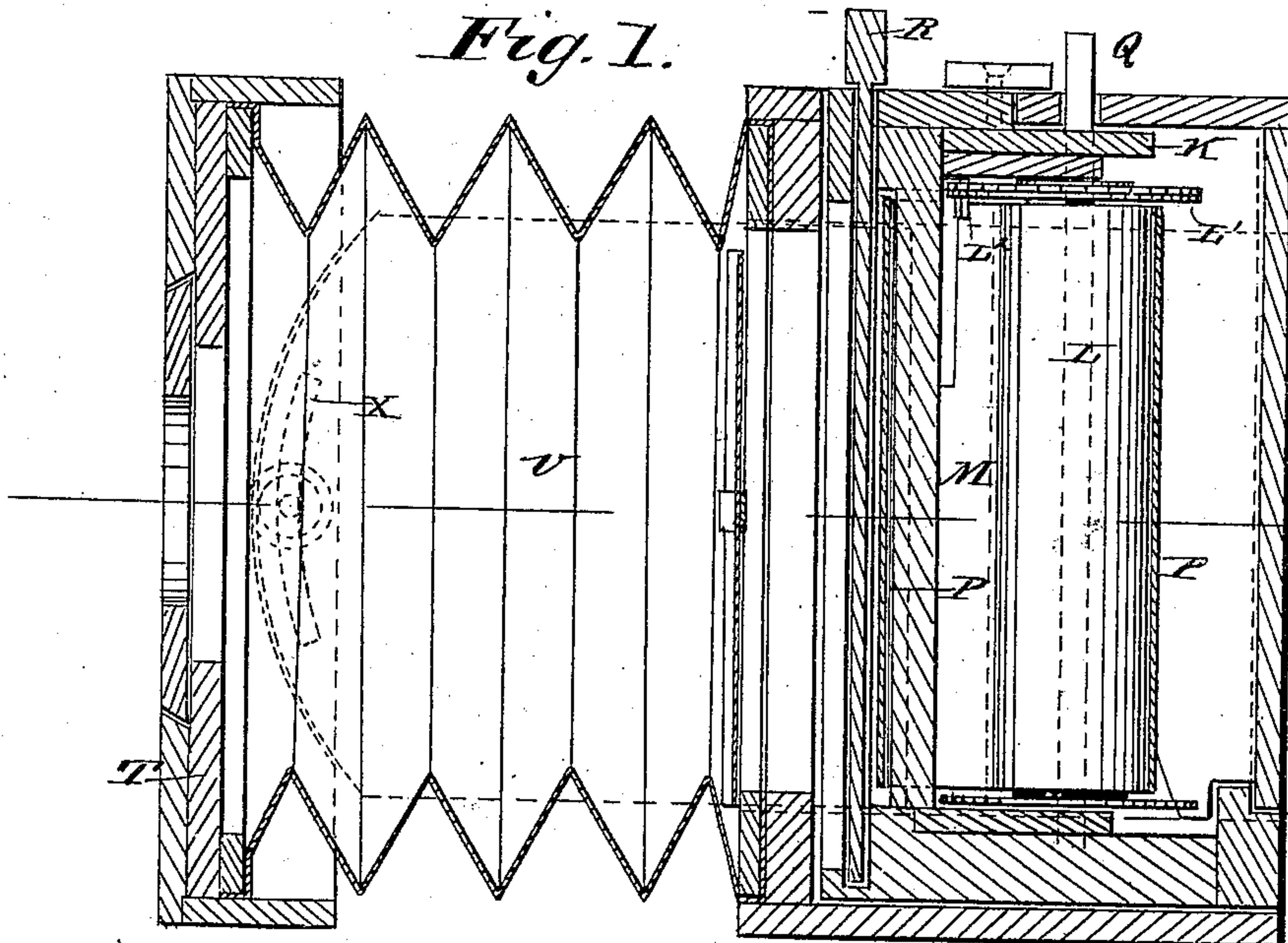
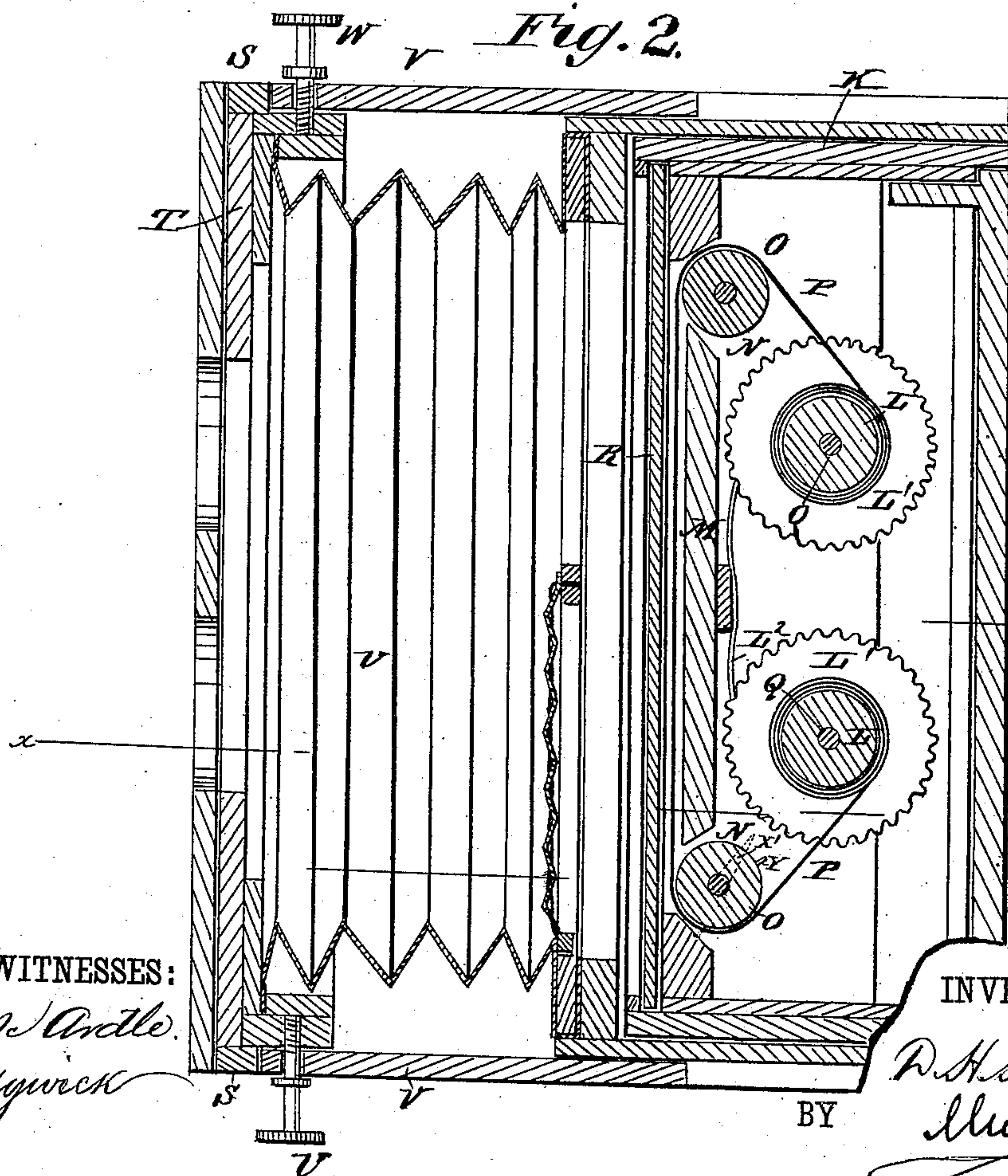


Fig. 2.



WITNESSES:

J. M. Andle  
C. Sedgwick

INVENTOR:

D. H. Houston  
By  
Attorneys.



# UNITED STATES PATENT OFFICE.

DAVID H. HOUSTON, OF CAMBRIA, WISCONSIN.

## PHOTOGRAPHIC APPARATUS.

SPECIFICATION forming part of Letters Patent No. 248,179, dated October 11, 1881.

Application filed June 21, 1881. (No model.)

*To all whom it may concern :*

Be it known that I, DAVID H. HOUSTON, of Cambria, in the county of Columbia and State of Wisconsin, have invented a new and Improved Photographing Apparatus, of which the following is a full, clear, and exact description.

The object of my invention is to facilitate taking a number of photographic views successively and in a short time.

The invention consists in a camera with a receptacle or box at its inner end containing a roll of sensitized paper or any other suitable tissue—such as gelatine or any more durable material that may be discovered—and an empty reel, upon which the sensitized band is wound as rapidly as it has been acted upon by the light.

In the accompanying drawings, Figure 1 is a longitudinal sectional elevation of the camera provided with a box containing rolls of sensitized paper or other suitable material. Fig. 2 is a horizontal sectional elevation of the same.

A box, K, containing sensitized flexible bands of any suitable material, may be passed into the receptacle in the rear part of the camera. This box K is provided with two vertical rollers or cylinders, L, provided with ratchet-wheels L', against which a spring-pawl, L<sup>2</sup>, rests, attached to front wall, M. This front M of the box is provided at the two ends with vertical slots N, and vertical rollers O, pivoted in the box K, are contained within these slots. A ribbon or band, P, of sensitized material passes from one roller L, around the roller O at the corresponding end of the box, and then through the corresponding slot, N, along the front of the box, through the opposite slot, N, around the corresponding roller, O, and to the other cylinder L. Before beginning the operations all the paper is wound on one spool or cylinder L and the other is empty, and the paper is wound from the full cylinder upon the empty one by turning the latter as the work proceeds. This cylinder is turned by means of a key placed on the squared end of the shaft Q of this cylinder. The box K is provided with a vertical slide, R, for excluding the light from the paper band P, when desired.

The end pieces, S, of the front end frame, T, of the bellows U of the camera are provided with segmental recesses, into which the outer segmentally-curved edges of the sliding side pieces, V, of the bellows-box fit, these side pieces being provided with segmental slots X, parallel with the edge of the side pieces, and through these slots binding-screws W pass into the end pieces, S, of the front end frame, T, and lock this end frame, T, in any desired position on the side pieces, V, for this end frame swings or turns on the segmental outer edges of the side pieces.

On the shaft of the left-hand roller O there is a pointer, X', outside of the box, to show the revolutions of the roller, and the roller is made to measure in circumference just half the length of the negative, so that two revolutions of the roller measure tissue enough for one negative. The same roller O carries a sharp point or stud, Y, near its top or bottom, which pin perforates the edge of the tissue each revolution, and consequently every other perforation marks the space between the negatives. As the impressions taken by light are at this time not developed, it follows that the perforations are necessary to cut the tissues apart for the development of the several negatives.

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

1. In a photographic-camera attachment, the combination, with the roller O, of the pointer X' and pin Y, substantially as herein shown and described.

2. In a photographic camera, the combination, with the roller O, of the perforator or pin Y at the bottom or top of the roller, substantially as herein shown and described, and for the purpose set forth.

3. The combination, with the box K, provided with the slots N in its front M, of the roller O, the rollers L, and a band, P, of sensitized flexible material attached to the rollers L, substantially as herein shown and described, and for the purpose set forth.

4. The combination, with the box K, provided with slots N and its front M, of the rollers O, the rollers L, the ratchet-wheels L', the spring-pawl L<sup>2</sup>, and the band, P, of sensitized

material attached to the rollers L, substantially as herein shown and described, and for the purpose set forth.

5 5. The combination, with the box K, having a slotted front, M, of the rollers L, the band, P, of sensitized paper attached to these rollers, and of the slide R, substantially as herein shown and described, and for the purpose set forth.

6. In a photographic camera, the combination, with the sliding side pieces, V, of the bellows-box, of the swinging front end, T, substantially as herein shown and described, and for the purpose set forth.

DAVID H. HOUSTON.

Witnesses:

ORIN W. FRENIER,  
AARON CHANDLER.