

No. 766,887.

PATENTED AUG. 9, 1904.

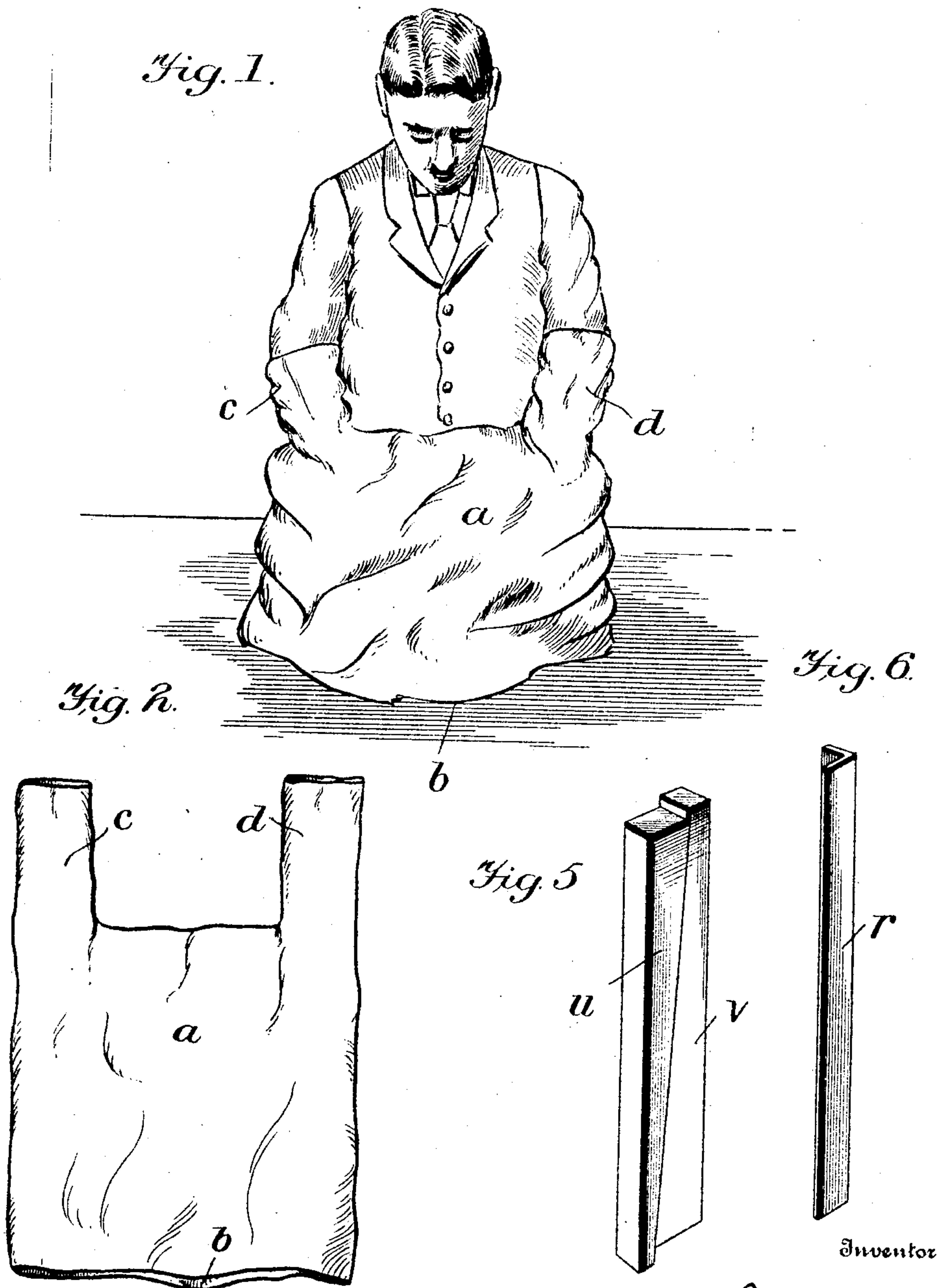
W. T. LEIGHTON.

FIELD PHOTOGRAPHIC DEVELOPING APPARATUS.

APPLICATION FILED MAR. 13, 1903. RENEWED JAN. 8, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

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Inventor

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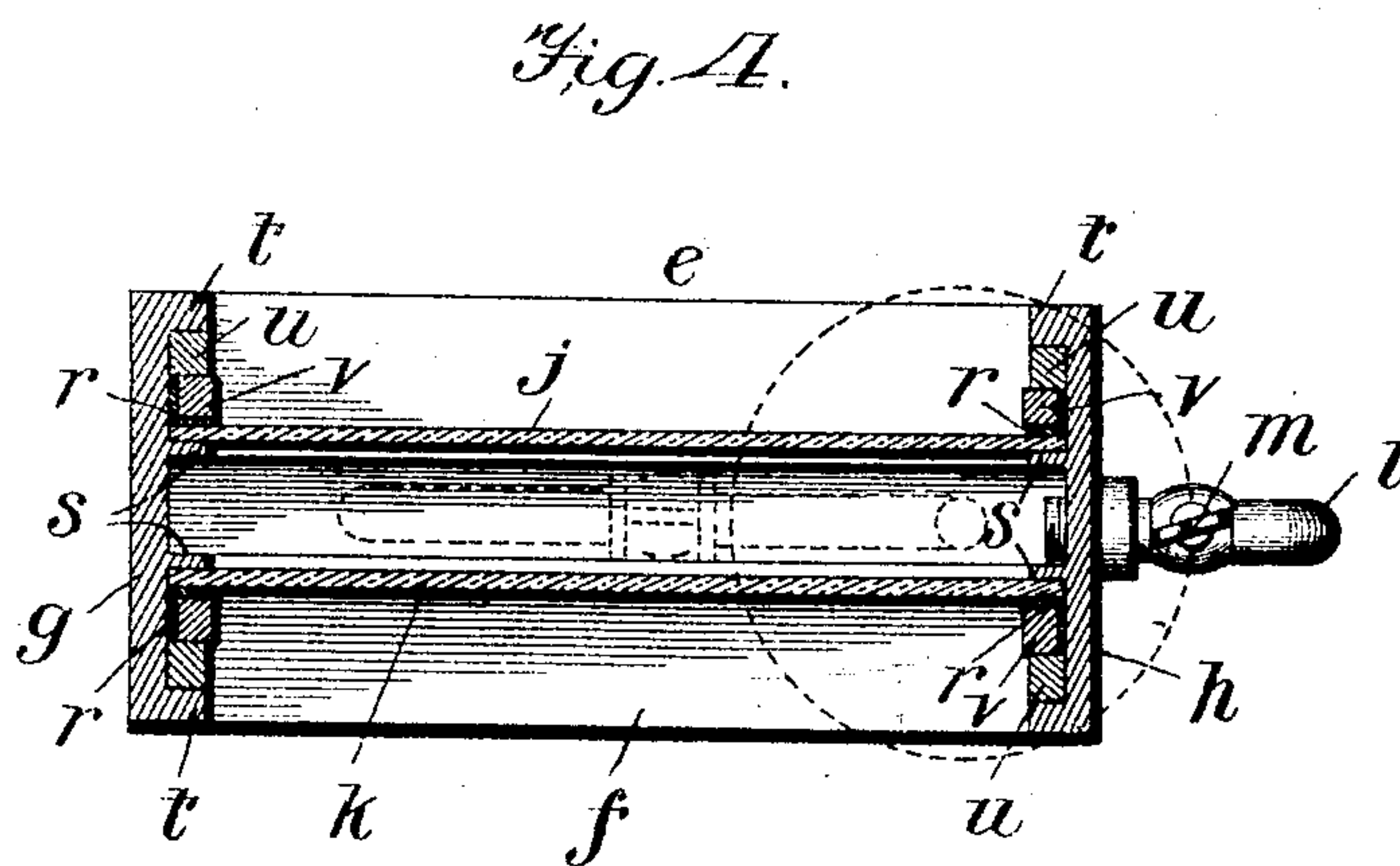
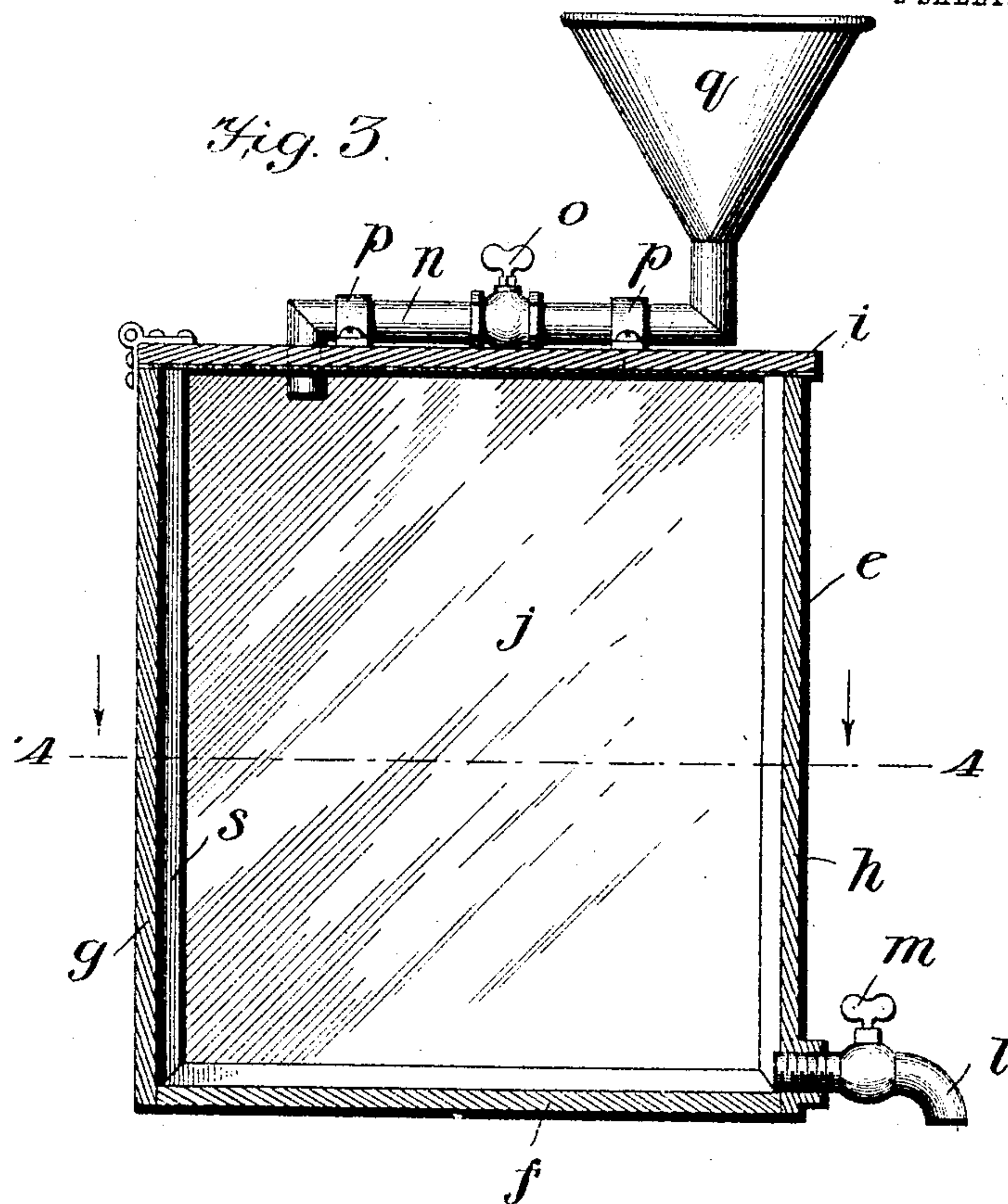
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2 SHEETS—SHEET 2.



Inventor

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UNITED STATES PATENT OFFICE.

WILLIAM T. LEIGHTON, OF ROCHESTER, NEW YORK.

FIELD PHOTOGRAPHIC DEVELOPING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 766,887, dated August 9, 1904.

Application filed March 13, 1903. Renewed January 8, 1904. Serial No. 188,251. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. LEIGHTON, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Field Photographic Developing Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in a field photographic developing apparatus; and the object of my invention is to produce a simple, cheap, and easily-operated apparatus by means of which negatives may be developed at any time and place.

With these objects in view my invention consists of the construction and combination of parts, as hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents an operator using my apparatus. Fig. 2 is a side elevation of an opaque cloth bag. Fig. 3 is a longitudinal section of the developing-box. Fig. 4 is a cross-section of the same on the line 4 4 of Fig. 3 looking in the direction of the arrows, and Figs. 5 and 6 represent details.

a represents a bag made of opaque cloth, usually red, although the color is immaterial. This bag has an open bottom, as shown at *b*, and two sleeves *c d*, which may be provided with puckering-strings at their outer ends, if desired. *e* represents the developing-box, consisting of a box *f* and metal sides *g h*. A hinged cover is also provided, so arranged as to closely fit over the top of the box and exclude every particle of light, except what passes in through the plates *j k*, preferably made of red glass or similar material, which will prevent actinic action upon the plate. A draw-off pipe *l*, provided with a cock *m*, communicates with the box nearest its lower end, and a bent pipe *n*, provided with a cock *o*, is secured to the top *i* by means of clips *p*. The pipe *n* is blackened on the inside to prevent any light entering, for which purpose the said pipe is also bent twice at right angles. A funnel *q* communicates with the top of the

pipe *n*. This funnel is also black on the inside.

Rubber washers *r*, preferably right-angled in cross-section, are used to prevent any light entering around the plates *j k* and also to keep them water-tight.

The sides of the box are provided with extensions *s*, against which the plates *j k* rest, and with other extensions *t* on the outer edge of the box. Between the extensions *t* and the plates *j k* are the wooden fastening-wedges *u* and *v*, fitted together, as shown in Fig. 5, to make a tight joint. Cement, putty, or similar material may be placed around the edges of the plates to keep them perfectly water-tight. The plates *j* and *k*, instead of being placed in contact with the projections *s*, may be placed in contact with the projections *t*, making the developing-space larger, or, if desired, a number of projections parallel to the projections *s* may be provided between the projections *s* and *t*.

The operation is as follows: The operator inserts both arms through the sleeves of the bag, as shown in Fig. 1. The operator then reaches through the open bottom of the bag and takes the developing-box in one hand and the photographic plate-holder in the other hand. Then the bottom of the bag is placed upon a table or other flat surface, keeping the developing-box and plate-holder under the bag. The operator then removes the plate from the plate-holder and opening the cover of the developing-box places the plate in the box and closes the cover. The bag is then removed, having served its purpose, since no light can reach the plate except through the red glass plates *j* and *k*. The developing solution is then poured into the funnel *q* and from there drawn into the developing-box, which is then held up to the light, so that the operator can watch the progress of the development of the plate. After the plate has been properly developed the operator draws off the developing solution through the lower pipe *l* and then runs water into the funnel, washing the plate. The cock *m* is then closed and the fixing solution run into the box *e*.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a field photographic developing apparatus, the combination of an opaque open-
5 bottom bag, having openings near the top and a developing-box, said box comprising a base, red glass sides, a hinged cover and a funnel-tube blackened inside passing through said cover, substantially as described.
- 10 2. In a field photographic developing apparatus, a developing-box comprising a base, red glass sides, a hinged cover, and a funnel-tube blackened inside passing through said cover, substantially as described.
- 15 3. In a field photographic developing apparatus, a developing-box comprising a base, ends provided with extensions, red glass sides, wedges for confining said sides in place, and a movable top having a funnel-tube passing
20 therethrough, substantially as described.

4. In a field photographic developing apparatus, a developing-box comprising a base and ends made of metal, said ends being provided with inwardly-projecting extensions, a hinged cover for said box, a funnel-tube black- 25 ened on the inside and provided with a stop-cock, passing through said cover, a discharge-pipe provided with a stop-cock connected to said box, red glass sides for said box, rubber washers adapted to fit against said sides and 30 paired wedges holding said washers and said glass plates in position, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM T. LEIGHTON.

Witnesses:

JANET SMITH,
FRED. M. WHITNEY.