

(No Model.)

4 Sheets—Sheet 1.

R. KOPPE & O. MOH.

PHOTOGRAPHER'S BAG CASE AND PLATE HOLDER.

No. 369,646.

Patented Sept. 6, 1887.

Fig. 2.

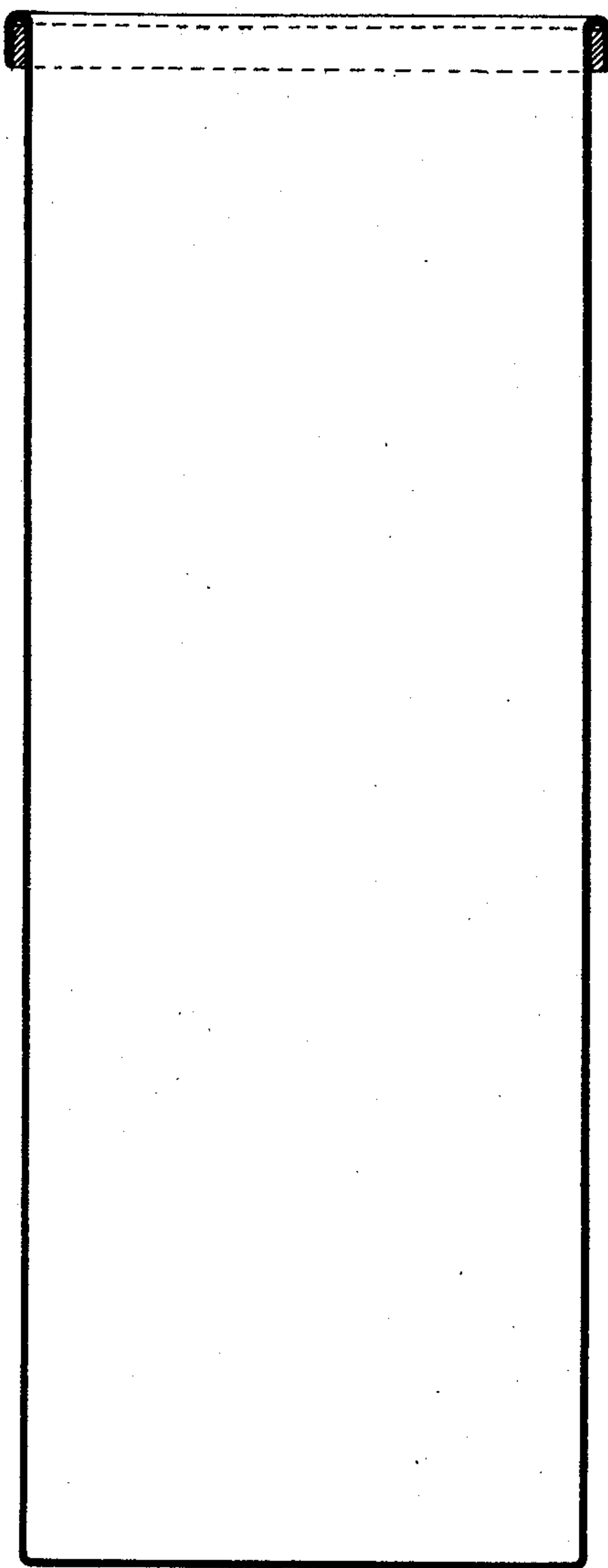
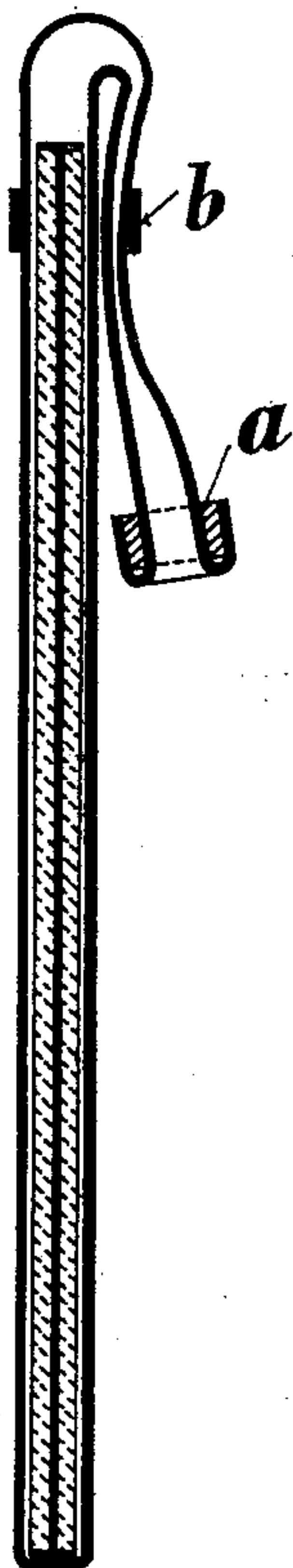


Fig. 1.



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(No Model.)

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Fig. 3.

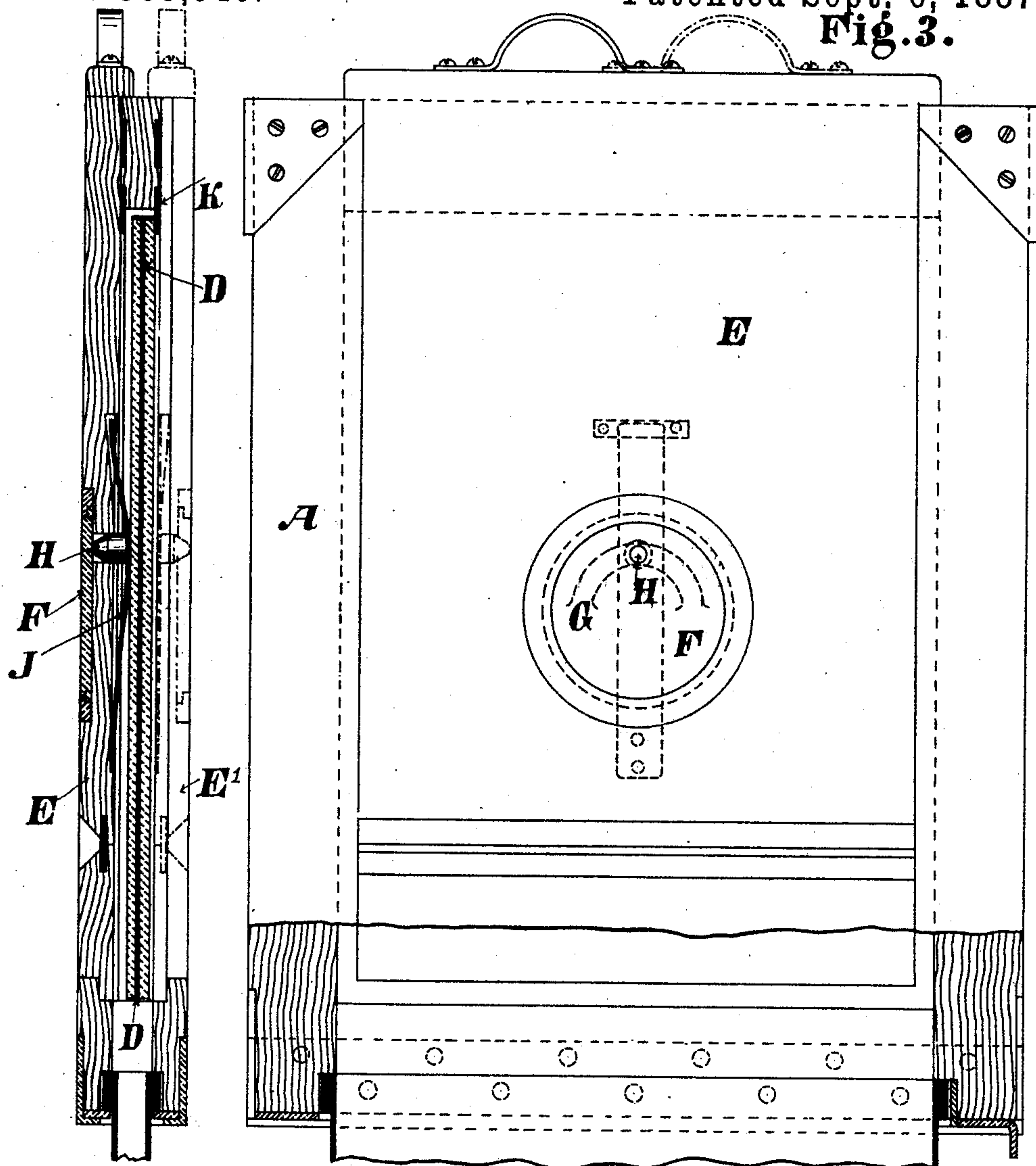


Fig. 4.

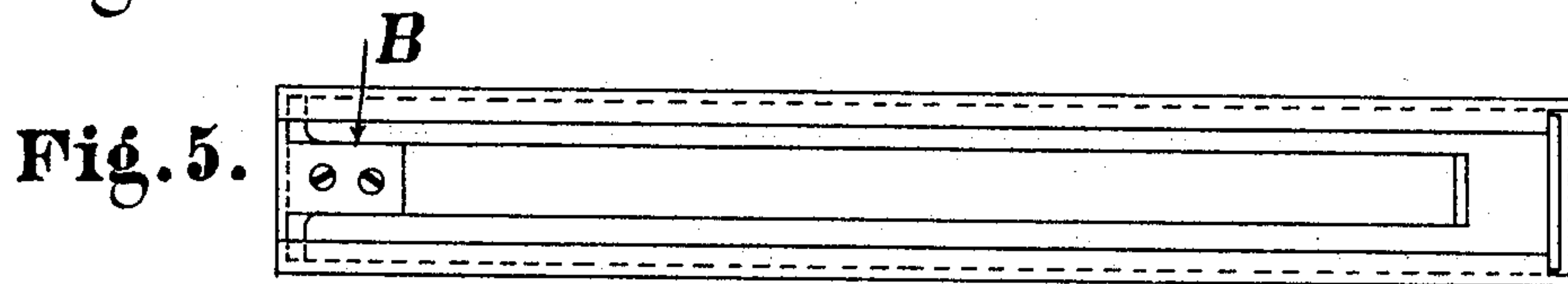


Fig. 5.

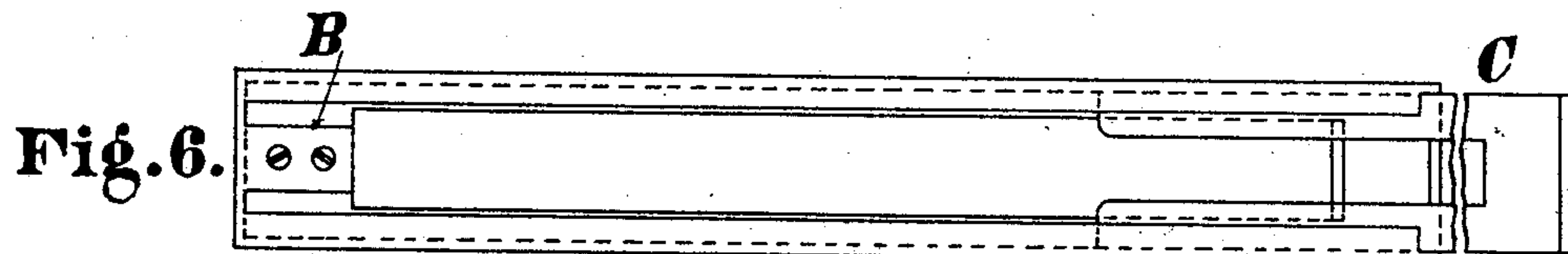


Fig. 6.

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Fig. 7.

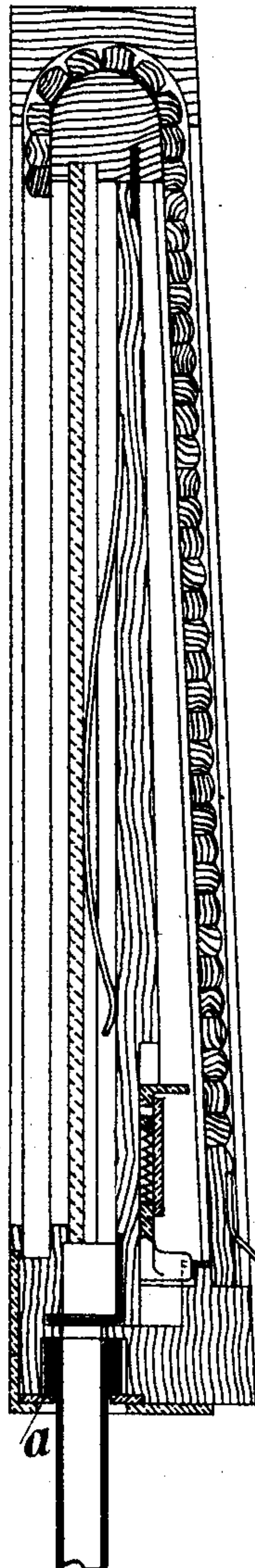
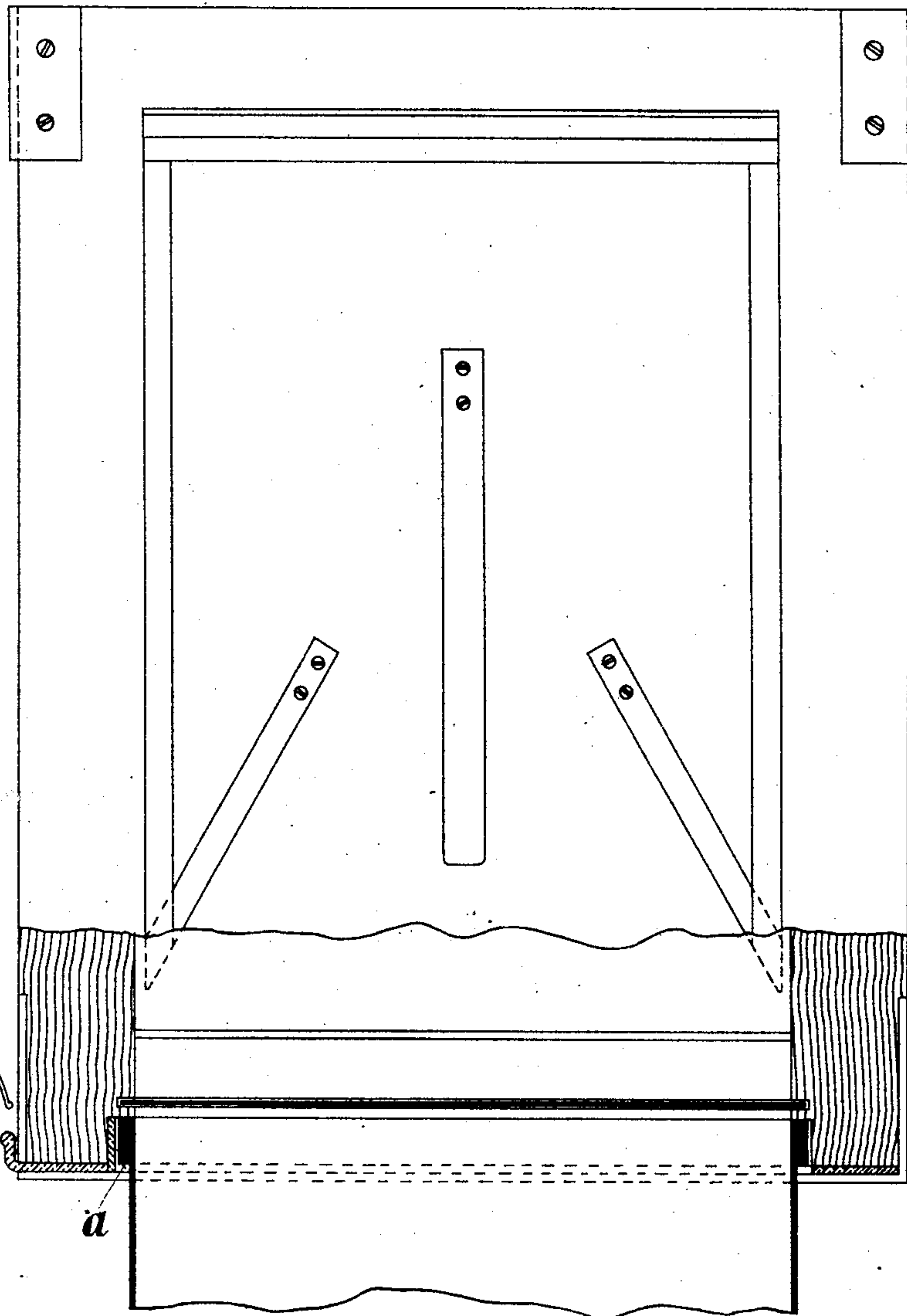


Fig. 8.



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PHOTOGRAPHER'S BAG CASE AND PLATE HOLDER.

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Fig. 9.

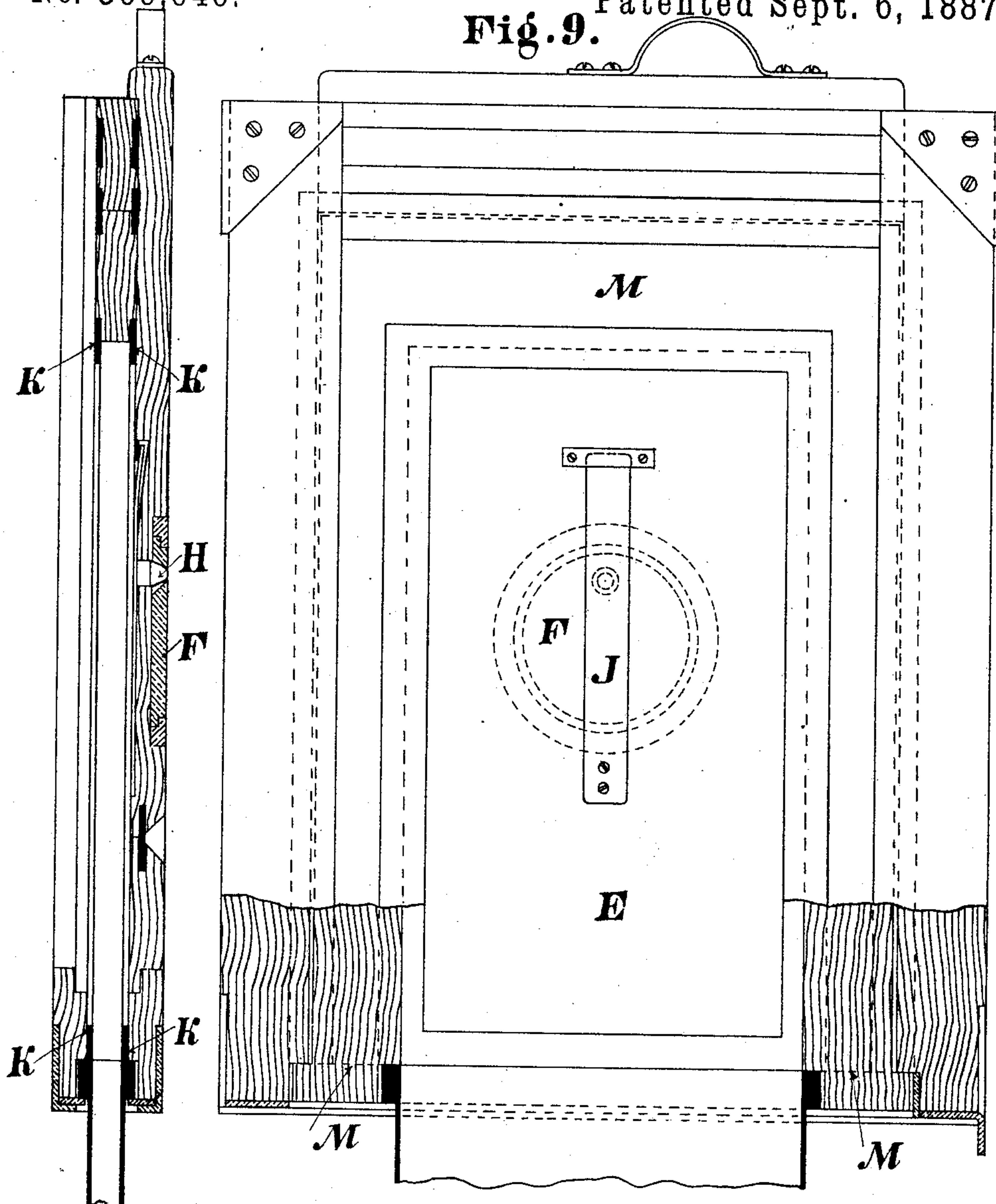


Fig. 10.

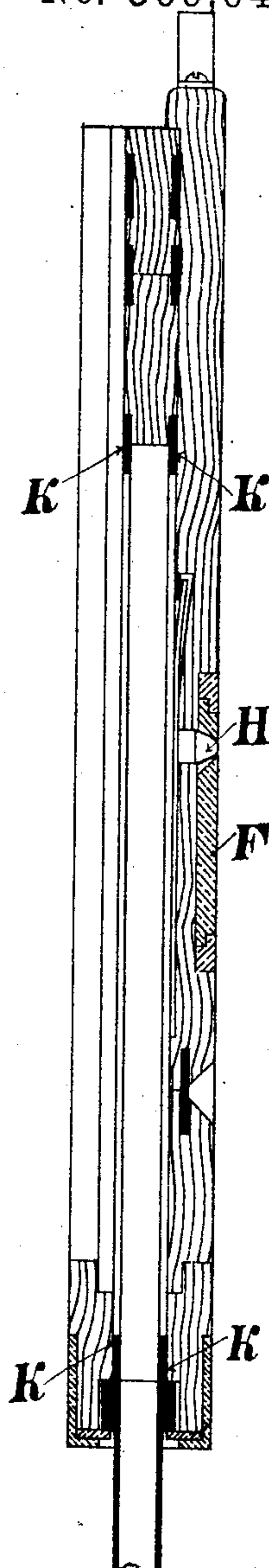
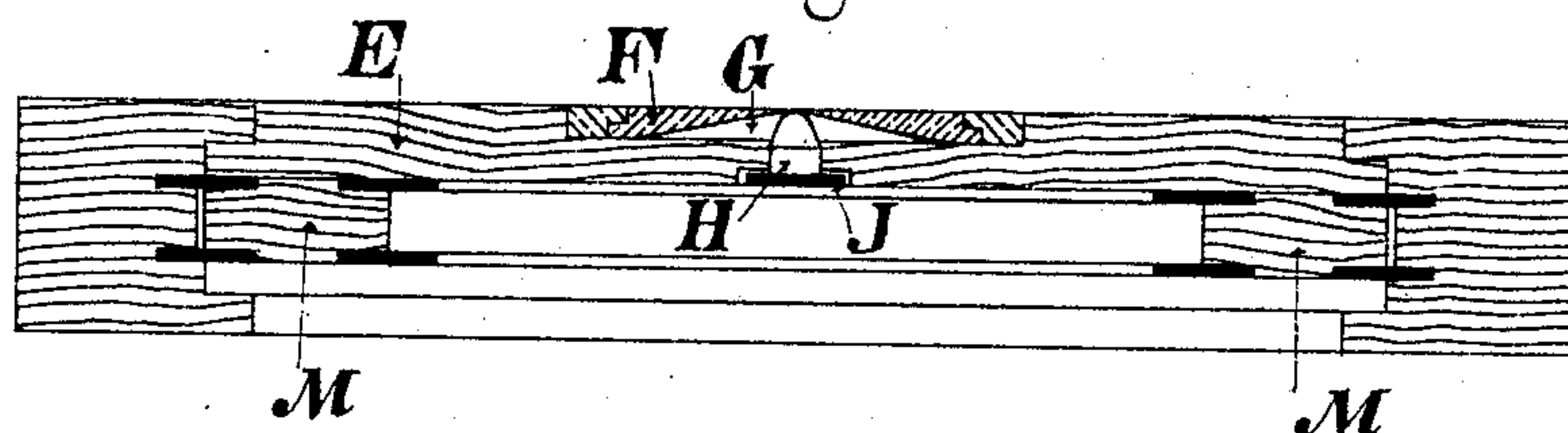


Fig. 11.



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UNITED STATES PATENT OFFICE.

RICHARD KOPPE AND OSWALD MOH, OF GOERLITZ, PRUSSIA, GERMANY,
ASSIGNORS TO KOPPE & MOH, OF SAME PLACE.

PHOTOGRAPHER'S BAG-CASE AND PLATE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 369,646, dated September 6, 1887.

Application filed May 27, 1887. Serial No. 239,573. (No model.)

To all whom it may concern:

Be it known that we, RICHARD KOPPE and OSWALD MOH, manufacturers, both residing at Goerlitz, in the Kingdom of Prussia, German Empire, have invented a certain new and useful Improved Bag-Case for Preserving (dark) the Sensitive Glass Plates of Photographic Apparatus and Appliances Connected Therewith, of which the following is a specification.

Our invention relates to an improved bag-case for preserving the sensitive plates employed in making photographic pictures, and also to sundry appliances connected therewith. The said bag-case is constructed in a manner to perfectly shut out the daylight, thereby keeping the sensitive plates as dark as required. The said bag-case besides allows of introducing the sensitive plates into the plate-holder without the use of a camera obscura, said plate-holder being constructed, according to one part of my invention, to fit the plate-bag aforesaid.

Photographers when traveling or moving about to take photographs are obliged to carry along with them a considerable number of sensitive prepared plates in order to avoid the necessity of exchanging such plates in the plate-holder. Such change usually is performed in the camera obscura, but as such camera cannot, or but with difficulty, be procured in any place on the road, the sensitive plates carried along in stock must be completely mounted, each in a plate-holder, and the desirable stock of such sensitive plates accordingly affords, carefully packed, a large volume and weight of luggage, which encumbers the traveler and increases his expenses.

The object of our invention, therefore, is to provide means of preserving and conveying the sensitive dry plates in an improved manner.

Figure 1 is a sectional elevation of the bag-case, showing the photographic plate contained therein. Fig. 2 is a sectional view of Fig. 1. Fig. 3 is a front view of the plate-holder. Fig. 4 illustrates a longitudinal sectional view of the same. Fig. 5 is an end view of Fig. 3. Fig. 6 is a transverse sectional view of Fig. 3. Fig. 7 is a front view

of a modified frame; Fig. 8, a sectional view on line *z z*, Fig. 7; Fig. 9, plan sectional view on line *z z*, Fig. 7. Fig. 10 is a longitudinal section of Fig. 9. Fig. 11 is a transverse section of the same.

By the bag-case hereinafter described we avoid the necessity of preserving and transporting each of the said plates in a separate plate-holder, as before. The improved bag-case of our invention is shown in the drawings in Figs. 1 and 2. The bag or pocket shaped case is made of suitable fabric, coated inside with india-rubber, gutta-percha, or similar smooth substance of sufficient density to shut the daylight out completely. The smooth inside coating of the fabric coming into contact with the dry-plate does not impair its qualities. The bag or pocket is flat and of sufficient depth to allow its open upper end to be folded above the plates, as shown in Fig. 1. The upper open end of the bag is surrounded by a metal frame, *a*, to which the edge of the fabric is fastened. Into this bag the sensitive plates are sunk immediately after being dried, and as soon as the plates are introduced the empty upper end of the bag is folded down and an elastic band, *b*, strung over it to keep the bag closely shut. Not the slightest ray of light is suffered to enter into this bag, and the dry sensitive plates may thus be preserved for years without losing their quality.

When the plates are to be used, the bag-case is brought into connection with the plate-holder A, constructed to receive the frame *a* of the bag, sliding within an aperture, the groove or grooves, B, being provided in the lower part of said holder A, as shown in Figs. 3, 4, and 5. The frame *a* is held secured within said grooves B by means of a forked clamp, C, Fig. 6. The fabric of the bag, bent around the metal frame *a*, serves to effect a perfectly tight and elastic fitting of the parts. When the bag has thus been secured to the plate-holder A, the elastic band *b* is removed, and the sensitive plate or plates within said bag may then be fed up into the holder A. Where double plates are employed, the same may be secured upon a sheet-metal plate, D, Fig. 4, each glass plate on one side of the metal plate D, which keeps them separate. The side edges of said sheet

metal D are cut into flaps, which, being bent alternately to the right and left side, embrace the edges of the glass plates and keeps the latter firmly together.

5 The slide-frames E, within the plate-holder A, are provided, according to our invention, with a peculiar device for adjusting the dry-plate previous to its exposure. This device consists of a turn-plate, F, with a semicircular
10 groove, G, as shown in Fig. 3. The depth of said groove is gradually increasing, and within said groove a pin, H, is working, the free end of which bears against a spring, I, lined with velvet. On turning the said plate F, by the
15 pressure of a finger, the pin H will gradually force down the spring, I, and the latter, bearing against the prepared glass plate, causes the same to advance till it rests against the metal band K. When the glass plate is to be
20 changed, the metal plate F is turned in the opposite direction. In consequence the pin H releases its pressure on the spring I, and the latter gives way to the glass plate, upon which the slide-frame E is introduced, the plate-
25 holder drawn out, turned over, and readjusted, as before described. After the exposure, the glass plate is again passed into the bag below the case A. The said bag then is closed by the elastic band b, the forked clamp C withdrawn,
30 and the bag-frame a removed from the grooves B.

When using glass plates of the larger sizes, it will be preferable to employ a single plate-holder, the arrangement and manipulation of
35 which are essentially the same as described before with reference to a double holder.

The improved bag-case of our invention offers the great advantage that it may be used in connection with all existing plate-holders,
40 the frames of which need only be provided

with the grooves B for receiving the metal frame a of the bag; and, finally, our invention relates to an improved means which allows the use of one and the same plate-holder for
45 glass plates of different sizes. For this purpose a special frame, M, Figs. 7, 8, and 9, is provided, fitting exactly into the plate-holder of the larger size, but with a width of space that answers the small size. The lower end
50 of this frame M is equally provided with the grooves B, as described, to receive the bag. The free space between the small-sized glass plate and the frame of the large plate-holder are filled up by the sides of the frame M.

It will be evident from the foregoing de-
55 scription that as the plate-holder hitherto necessary for preserving and conveying the dry sensitive glass plates are replaced by the bag-cases of our invention a considerable saving in weight and expenditure is effected.
60

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a photographic apparatus, the combination of the turn-plate F, the semicircular groove G, pin H, spring I, and band K, sub-
65 stantially as and for the purpose set forth.

2. In a photographic apparatus, the combination, with sensitive glass plates, of interposed sheet-metal plates having their edges bent, cut, and overlapping the said sensitive glass
70 plates, substantially as and for the purpose set forth.

In testimony whereof we hereunto sign our names in the presence of two subscribing witnesses.

RICHARD KOPPE.
OSWALD MOH.

Witnesses:

B. ROY,
C. E. McDONALD.