(No Model.)

A. TOURNIER.

MAGAZINE PLATE HOLDER.

No. 541,188. Patented June 18, 1895.

Fig. 1.

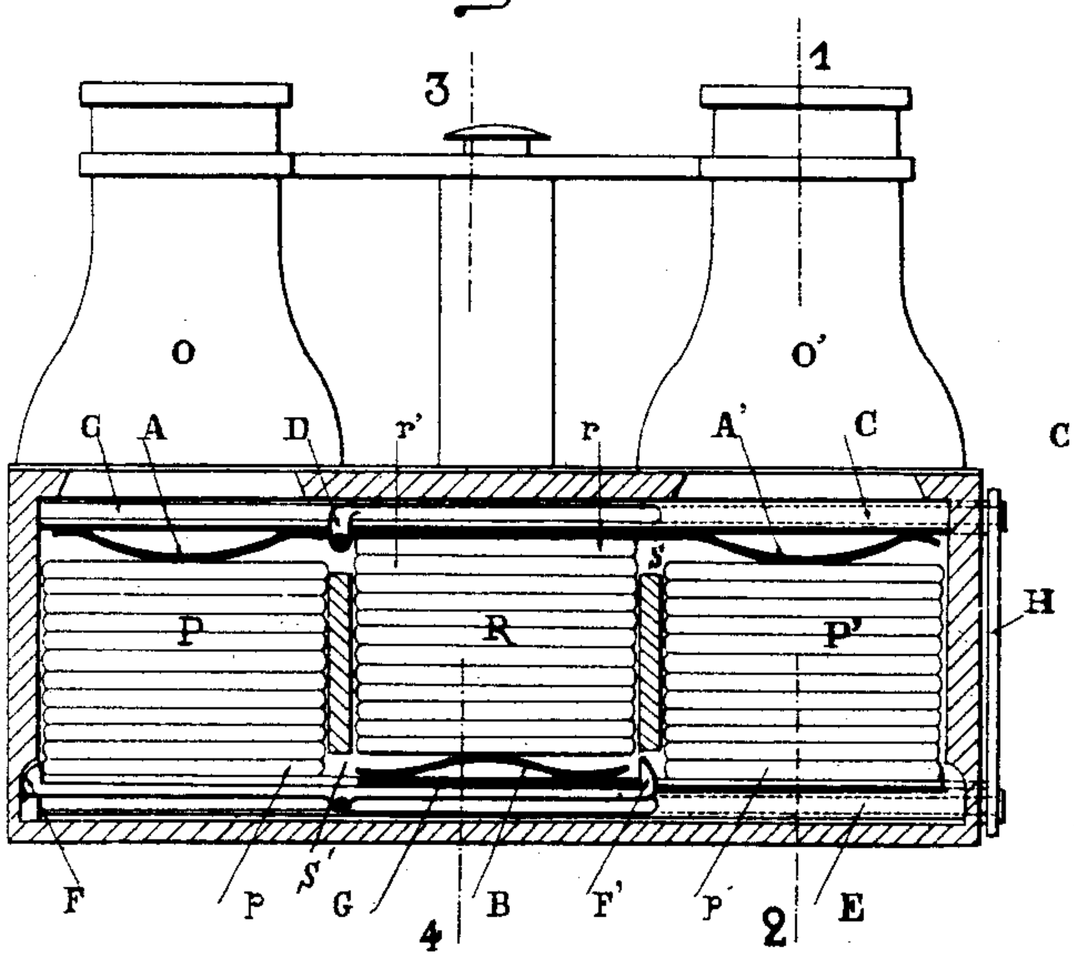


Fig. 2.

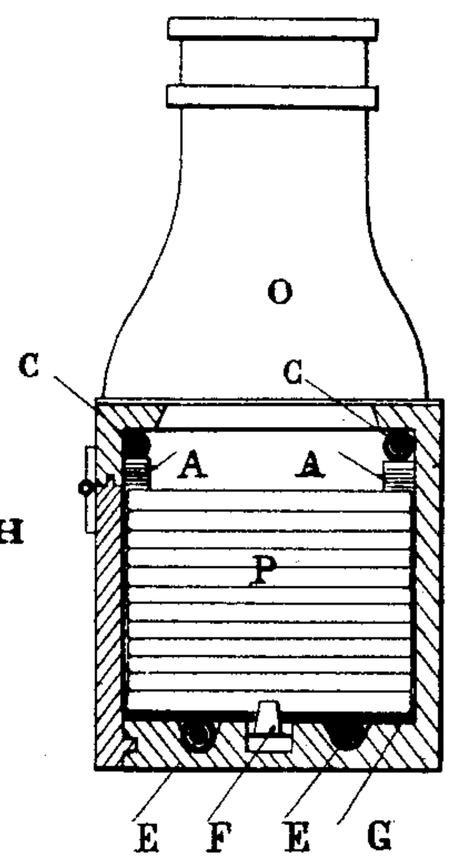


Fig. 4.

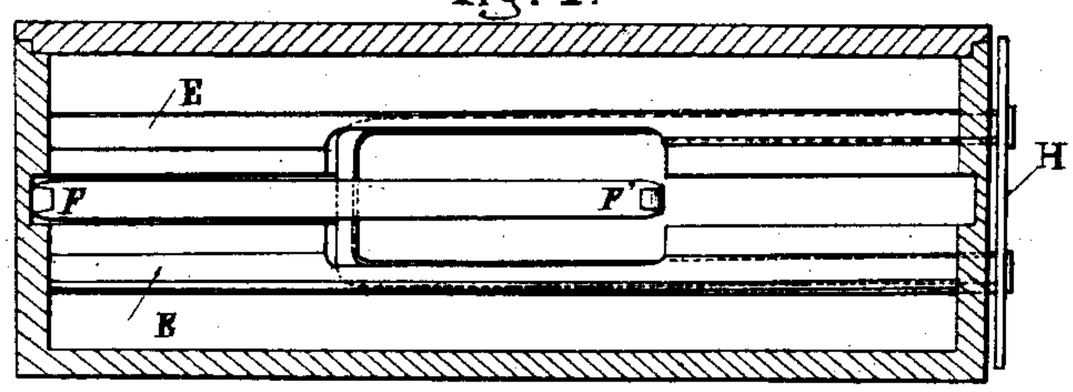


Fig. 3.

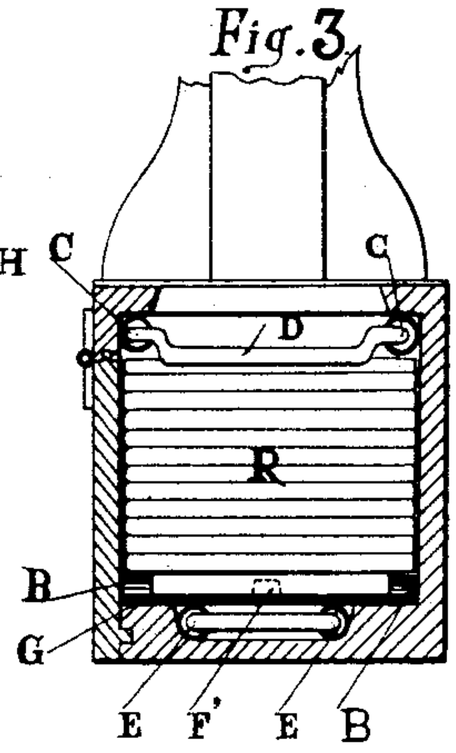
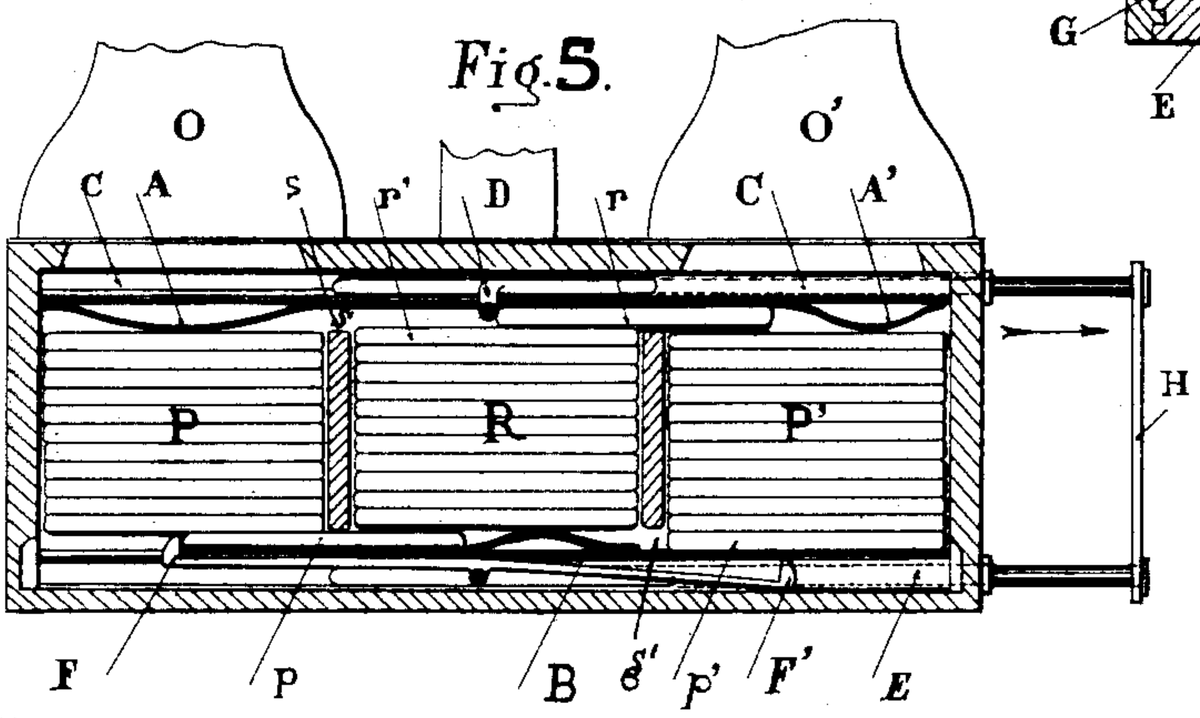


Fig. 5.



Witnesses

H. van Vloorneek

E. K. Stutevant

Inventor

Auguste Tournier

by Richards & Q

Attorneys

UNITED STATES PATENT OFFICE.

AUGUSTE TOURNIER, OF LYONS, FRANCE.

MAGAZINE PLATE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 541,188, dated June 18, 1895.

Application filed February 26, 1895. Serial No. 539,790. (No model.) Patented in France December 12, 1894, No. 240,664.

To all whom it may concern:

Be it known that I, AUGUSTE TOURNIER, a citizen of the Republic of France, residing at Lyons, in the Republic of France, have invented certain new and useful Improvements in Magazine Plate-Holders, (for which I have obtained a patent in France, No. 240,664, dated December 12, 1894,) of which the following is a specification.

The improvements which constitute the subject matter of the present invention relate to magazines for photographic apparatus of all kinds.

The invention can be arranged either as a fixed magazine making one body with the photographic apparatus, or as a movable magazine forming a repeating holder adapted to the ordinary apparatus instead of the double holders.

The annexed drawings show this invention applied to an apparatus with a fixed magazine of the shape called "opera glass" which comprises two exposing openings which can serve for stereoscopic views.

Figure 1 is a vertical longitudinal section of the magazine. Figs. 2 and 3 are transverse sections on lines 1 2 and 3 4 of Fig. 1. Fig. 4 is a horizontal section showing the bottom of the magazine. Fig. 5 is a sectional view similar to that of Fig. 1, seen during the shifting.

The magazine is divided in three compartments the two extreme P P′ of which, serving for the exposing, are surmounted by the ordinary exposing devices O O′. The central compartment R serves as a magazine for the two others wherewith it communicates by the upper and lower slots S and S′ in the two interior partitions.

When at rest and during the exposing there is an even number of plates in the three columns. The plates of the side columns are pressed against the bottom of the magazine by means of springs A, A′ at the sides bearing upon the projecting edges of the metallic frames. Those of the central compartment are pushed upward by springs B bearing upon the bottom of the frames.

At the upper part of the magazine is shown a carrier formed of a U-shaped rod, the two arms of which slide in fixed tubes C C and the depending portion D of which can engage either at the right or at the left, the upper frame of the compartment R. At the lower part a similar rod sliding in the tubes E E is fixed in the center of a spring provided at its extremities with two hooks F F′ arranged so as to catch the lower frames of the compartments P P′. The tubes E E, the rod and the spring are sunk in the bottom of the box and covered by a metallic plate G through which the hooks F F′ extend and upon which the frame rests. The four branches of the two U-shaped rods are united outside by a traverse plate H which causes them to move simultaneously. The whole of the rods, the hooked spring and the plate H, which I call a slide, can therefore be operated from the outside as if it were one piece. This being explained, let us suppose that the slide is pushed inside, Fig. 1, the upper plates of the columns P P′ being arranged for the exposure, and having received an impression, simultaneously or not, I proceed to the shifting by simply opening or pulling out the slide until the end of its course and pushing the same back again in its first position. During the first of these movements, half of which is shown in Fig. 5, the upper plate r of the central column, carried along by the driver D passes upon the right hand column P′ while compressing the springs A′, and the lower plate of the left hand column carried by the hook F passes under the central column while compressing the spring B. During that time the hook F′ slides under the lower plate p' of the column P′ without producing any effect. The movement being at an end the fresh plate r has come on top of the column P′, the following plate r' of the column P pressed backward by the spring B comes in contact with the driver D which is now at the right hand side, and the hook F′ has caught the lower plate p' of the column P′. By pushing back the slide, the second fresh plate i' will be placed on top of the column P and the plate p' will be placed underneath the column R. There is no change in the number of each column and each of the side columns has a fresh plate on top ready to receive impressions.

What I claim as my invention is—

1. A photographic camera having two exposing chambers and a central storage chamber and means for alternately shifting the plates from the storage to the exposing cham-

bers and back to the storage chamber, substantially as described.

2. In a photographic magazine having two exposing chambers and a central storage chamber, a carrier having arms extending above and below said chambers, and means carried by said arms for engaging the plates alternately, substantially as described.

3. In combination, the three compartments having communicating slots at the top and bottom, the upper carrier arranged to alternately engage opposite sides of the plates of the central compartment and shift them into the side compartments, the lower carrier arranged to engage alternately with the plates of the side compartments, and means for operating said carriers simultaneously, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

AUGUSTE TOURNIER.

Witnesses:

Y. RABILLOUD,

GASTON JEAUNIAUX.