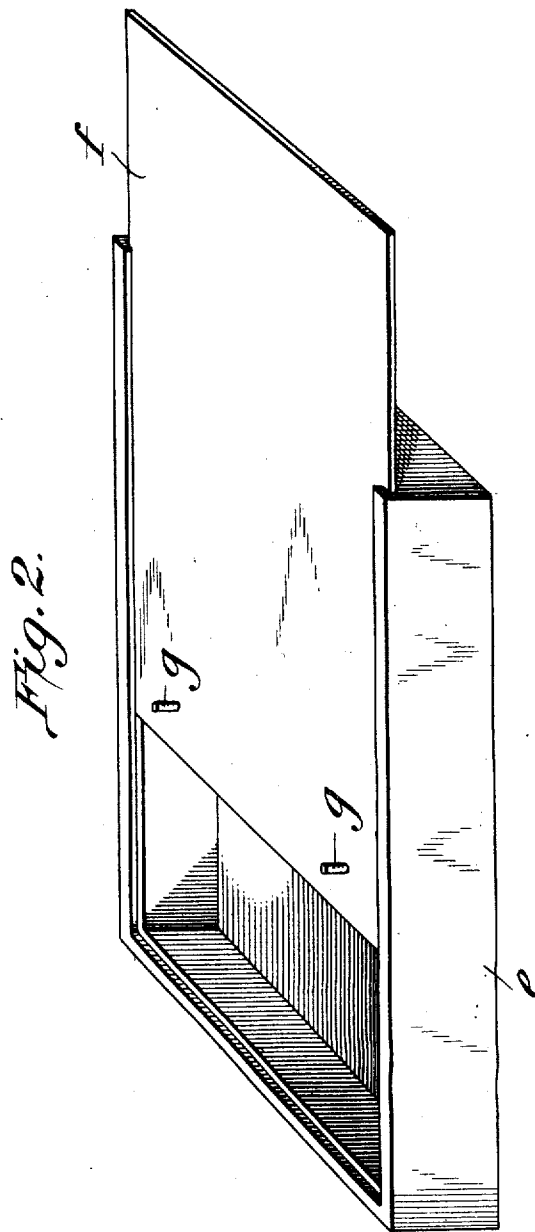
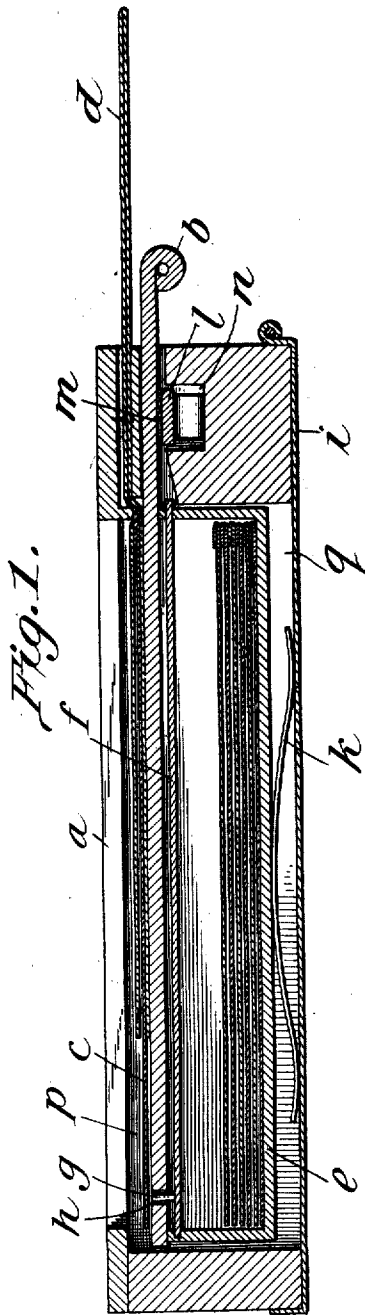


J. SCHMUCK.
 DEVICE FOR EXPOSING LIGHT SENSITIVE LAYER CARRIERS.
 APPLICATION FILED MAR. 30, 1907.

909,459.

Patented Jan. 12, 1909.



Witnesses:
 E. P. La Gay
 C. M. C. Riemann

Joseph Schmuck Inventor,
 By Remy Ogden atty

UNITED STATES PATENT OFFICE.

JOSEPH SCHMUCK, OF STEGLITZ, NEAR BERLIN, GERMANY, ASSIGNOR TO THE FIRM OF OPTISCHE ANSTALT C. P. GOERZ AKTIENGESellschaft, OF FRIEDENAU, NEAR BERLIN, GERMANY.

DEVICE FOR EXPOSING LIGHT-SENSITIVE LAYER-CARRIERS.

No. 909,459.

Specification of Letters Patent.

Patented Jan. 12, 1909.

Application filed March 30, 1907. Serial No. 365,583.

To all whom it may concern:

Be it known that I, JOSEPH SCHMUCK, citizen of the German Empire, and resident of Steglitz, near Berlin, Germany, mechan-
5 Improvements in Devices for Exposing Light-Sensitive Layer-Carriers, of which the following is a specification.

My present invention relates to a device
10 for exposing light-sensitive layer-carriers in which the layer-carriers are transferred from an exposing chamber to a receptacle located behind the same, and the purpose of my present invention is to allow of effecting
15 the transfer in a convenient and safe manner while using an exchangeable receptacle. This purpose is, according to the invention, effected by inserting the receptacle for the layer-carriers, which is provided with a slide
20 shutter, into the box in which the layer-carrier is exposed, the slide shutter of the receptacle being detachably coupled with the change-slide of the box on which the layer-carrier rests during the exposure. The
25 coupling between the slide shutter of the receptacle and the change-slide of the box insures that when the change-slide is withdrawn the slide shutter of the receptacle is also withdrawn, and the entrance for the
30 exposed layer-carrier to the receptacle is thus opened.

The transfer of the layer-carrier into the receptacle is particularly simplified if the receptacle for the layer-carriers is also used
35 as support for the change-slide and is pressed against the latter by spring-force.

For facilitating the coupling of the change-slide with the slide shutter of the receptacle on inserting the receptacle into
40 the box, the slide shutter is preferably provided with coupling-pins which project from the surface of said slide shutter.

The annexed drawing illustrates an embodiment of this invention. Fig. 1 being
45 a section through the box with the receptacle inserted, while Fig. 2 is a perspective view of the receptacle.

The box, in which the exposure of the layer-carriers takes place is designated as a
50 whole by *a*. The change-slide of the box bears the designation *b*. In the longitudinal section, shown in Fig. 1, of a device constructed according to the invention, there is shown above the change-slide *b* a layer-

carrier *c*, represented as a film, inserted into
55 a light-proof envelop *d* shown partly withdrawn from the box, over the layer-carrier. The receptacle for the exposed layer-carrier is designated by *e*. The slide shutter there-
60 of bears the designation *f* and is provided with coupling-pins *g* which extend into holes
h with which the change-slide *b* is provided.

i is a hinged back cover to the box, hav-
ing on its inner surface a spring or springs
65 *k* which abut against the receptacle *e* and press the latter against the change-slide *b*. By this means the change-slide *b* is elastically supported, so that it always presses the
70 layer-carrier which is outside it, however thick the latter may be, against the abut-
ment surfaces of the box, and places the light-sensitive layer thereof in the focal plane.

l is a ledge carrying a strip *m* of velvet
75 or some other material adapted to form a light-tightly closed slot. The ledge *l* is yieldingly mounted in a recess *n* of a frame member of the box *a* and is pressed with
80 strip *m* against slide *b*, so that slide *f* can pass between the change-slide *b* and strip
m of ledge *l*.

The compartment above the slide *b* forming the exposing chamber is designated *p* and the compartment below the slide *b*
85 forming a chamber which may be called collecting chamber, because the receptacle *e* for the exposed layer-carriers is inserted therein, is designated *q*.

The manner in which the device described
90 is used is as follows: After opening the back cover *i* of the box the receptacle *e* with closed cover *f* is inserted into the box, so that the coupling-pins *g* extend into the holes
95 *h* of the change-slide *b*. Thereupon the cover *i* is closed again, so that the receptacle *e* is pressed by the springs *k* against the under-surface of the closed change-slide *b*. A layer-carrier *c*, which is inclosed in a
100 light-proof envelop *d*, is then inserted into the box above the change slide *b*, and thereupon the light-proof envelop *d* is drawn off the layer-carrier. After the exposure of the layer-carrier the change-slide *b* is with-
105 drawn. The said slide takes with it the shutter-slide *f* which passes between the lower face of slide *b* and strip *m* of ledge *l*, so that access to the receptacle is opened and

the exposed layer-carrier can fall into the receptacle. The change-slide *b* is then pushed in again, so that the closing of the receptacle *e* by the slide *f* is simultaneously effected. A fresh layer-carrier can now be inserted and also transferred after exposure to the receptacle in the manner described. The receptacle with the layer-carriers can be removed from the box and replaced by a fresh receptacle in daylight, by opening the back cover *i*. The layer-carriers in the receptacles can be removed from the latter in a dark-room for further treatment.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

1. In a device for exposing sensitive layer-carriers, a box provided with a compartment adapted to receive a layer-carrier in a light-proof envelop forming an exposing chamber for the layer-carrier, a slide at the rear of said exposing chamber and a second compartment separated from the first compartment by said slide, said second compartment being adapted to receive a receptacle with a slide shutter, the slide separating the two compartments of the box being provided with coupling means adapted to cooperate with the slide shutter of the receptacle so as to open and close said slide shutter simultaneously with its own opening and closing.

2. In a device for exposing sensitive layer-carriers, a casing, a slide forming a division between an exposing chamber of said casing and a collecting chamber of said casing, means allowing the introduction of a receptacle into the collecting chamber and means forming a light-tightly closed slot from inside of said collecting chamber to outside.

3. In a device for exposing sensitive layer-carriers, a casing, a slide forming a division between an exposing chamber of said casing and a collecting chamber of said casing, means allowing the introduction of a receptacle into the collecting chamber, a yielding ledge arranged transversely to the direction of movement of said slide and mounted in a frame part of the casing, said ledge forming a light-tightly closed passage from inside of said collecting chamber to outside.

4. In a device for exposing sensitive

layer-carriers, a casing, a slide forming a division between an exposing chamber of said casing and a collecting chamber of said casing, a receptacle provided with a slide shutter removably inserted into the collecting chamber, the slide shutter movable in the same direction as the said division forming slide of the casing, the said two slides being detachably coupled together so as to move simultaneously and means allowing the slide shutter of said receptacle to light-tightly pass from inside to outside of the casing.

5. In a device for exposing sensitive layer-carriers, a casing, a slide forming a division between an exposing chamber of said casing and a collecting chamber of said casing, a receptacle provided with a slide shutter removably inserted into the collecting chamber and yieldingly pressed with its top face against said division forming slide, the two slides movable in the same direction and detachably coupled together, a ledge arranged transversely to the direction of movement of said slides and resiliently mounted in a frame part of the casing provided with the exposing and with the collecting chamber and pressed against the same side of the division forming slide as the slide shutter of said receptacle and forming a slot allowing the passage of said slide shutter from inside to outside of said collecting chamber.

6. In a device for exposing sensitive layer-carriers, a casing, a slide forming a division between an exposing chamber of said casing and a collecting chamber of said casing, means allowing the introduction of a layer-carrier into the exposing chamber, a receptacle provided with a slide shutter removably inserted into the collecting chamber, the slide shutter movable in the same direction as the said division forming slide of the casing and provided with pins entering into holes of the division forming slide and means allowing the slide shutter of said receptacle to light-tightly pass from inside to outside of the casing.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOSEPH SCHMUCK.

Witnesses:

HENRY HASPER,
WOLDEMAR HAUPT.