

J. SCHMUCK.
FILM PACK AND ADAPTER THEREFOR.
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986,420.

Patented Mar. 7, 1911.

Fig. 1.

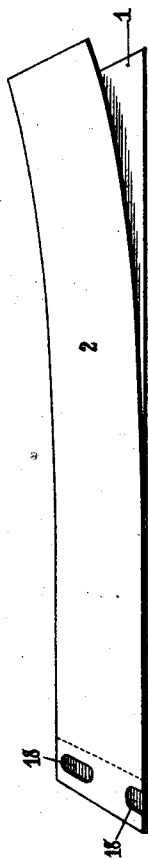


Fig. 2.

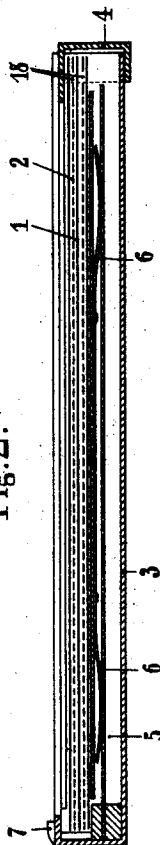
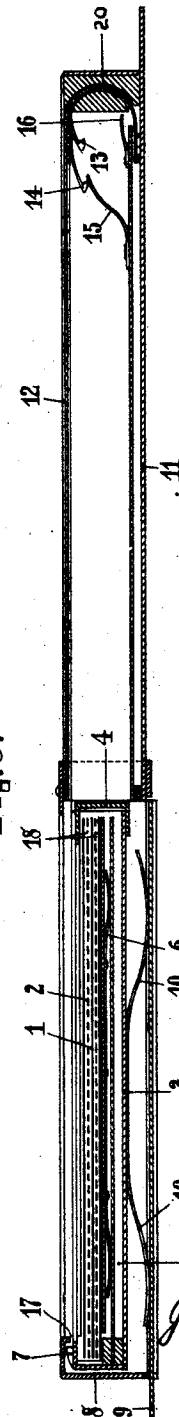


Fig. 3.



Witnesses:
Paul H. Frank
Louis E. Campbell.

Inventor:
Joseph Schmuck
By

Dickerson, Brown, Raup & Matty
Attorneys.

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.

FILM-PACK AND ADAPTER THEREFOR.

986,420.

Specification of Letters Patent.

Patented Mar. 7, 1911.

Original application filed July 7, 1908, Serial No. 442,431. Divided and this application filed January 10, 1910. Serial No. 537,205.

To all whom it may concern:

Be it known that I, JOSEPH SCHMUCK, a citizen of the German Empire, and resident of Steglitz, near Berlin, Germany, have invented certain new and useful Improvements in Film-Packs and Adapters Therefor.

The pack and the device for changing the films therein are so constructed that the insertion of the pack into a box for exposing the films as well as the removal of the films from the changing box after exposure can be effected in day-light.

The invention is illustrated on the accompanying drawing.

Figure 1 is a perspective representation of a film element as used in connection with the new pack and changing device. Fig. 2 is a longitudinal section through an embodiment of a pack containing film elements in accordance with Fig. 1. Fig. 3 shows the pack of Fig. 2 inserted into a changing and exposing box.

The film element illustrated in Fig. 1 consists of the film proper 2 and an opaque back sheet 1 connected at one end to the film proper. In the pack which as a whole is designated 3 the opaque back sheets 1 form interposition sheets between succeeding films 2.

In the embodiment of the pack shown in the drawing the casing is two chambered containing besides the chamber for the films to be exposed a collecting chamber 5 for the exposed films. The pack is provided with an end closing member 4.

6 is a spring within the pack compartment which tends to press a movable bottom plate against the film elements.

8 designates the changing box as a whole.

9 is a slide of the changing box at that side of same opposite the exposing opening.

10 is a spring connected to slide 9 which in reality is of extreme thinness so that it passes without difficulty through the slot of the wall of box 8 where slide 9 is guided.

11 is a drawer for changing the film elements adapted to be closed at its upper side by a flexible slide 12 attached at one end to the upper wall of box 8.

13 is a hook of the drawer 11 for removing the end closing member 4 of the pack.

14 is a gripping hook for grasping the

film elements and 15 a spring adapted to contact with said last named hook from its lower side.

16 is a spring adapted to press closing member 4 against spring hook 13 so as to secure permanent engagement of closing member 4 and hook 13 within the drawer 11.

17 is a stop member of the exposing box adapted to cooperate with stop member 7.

18 are gripping openings in the film elements which only penetrate the films proper but not the opaque interposition sheets.

The operation of the device in accordance with Figs. 2 and 3 is as follows: In order to insert the pack illustrated in Fig. 2 into the exposing box, slide 9 is removed. The pack is then inserted into the box from the back side, while the drawer 11 is drawn out. This being done, slide 9 is again inserted. Spring 10 now presses the pack toward the exposing opening. If the drawer is now pushed back into the box, hook 13 engages the edge of cover 4 of the pack, so that same is drawn off, when the drawer is again drawn out. After removal of cover 4 the hook 14 enters one of the openings 18 of the uppermost film element, so that on each drawing out of the drawer, the uppermost film element is engaged by the hook 14 and drawn out of the pack. On pushing the drawer again into the box, the film element is transported into the collecting chamber 5 of the pack. The film element is released from the parts 14 and 15 by the part 15 coming in contact with the lower edge of the collecting chamber and being pressed down, thereby releasing the film element. The drawing out of the whole pack instead of the end cover 4 alone with the uppermost film element, is prevented by the cooperation of stops 7 and 17. On each drawing out of the drawer, the drawer remains closed from the top side by the flexible slide 12. Flexible slide 12 is adapted to slide in a groove 20 when the drawer is closed, the groove being shown in Fig. 3 in the partition adjacent to the rear of the catch 13, said groove extending above the bottom of the drawer. When all films of the pack have been exposed, the drawer is returned into the box and slide 9 then drawn out. If one now presses on the pack from the

side of the exposing opening of the box, hook 13 no longer engages the edge of the end cover 4, when the drawer is drawn out, so that the cover 4 remains on the pack in the closing position. The closed pack with the exposed films within the collecting chamber can now be removed from the box in the same manner that it was introduced without requiring dark chamber.

10 The term film has been used in the foregoing specification and will be used in the following claims in a quite broad sense so as to cover every kind of light-sensitive layer carriers including sensitive glass plates.

15 This application is a division of my co-pending application Sr. No. 442,431, filed July 7, 1908.

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. A film pack comprising a receptacle or casing having a removable end closing member and a pile of films in said casing, opaque interposition sheets between said films and connected thereto, each film and its sheet comprising a film element which film element is provided with gripping openings at that end which is adjacent to the end of the casing provided with the removable end closing member.

2. A film pack comprising a receptacle or casing having a removable end closing member and a pile of films in said casing, opaque interposition sheets between said films and connected thereto, each film and its sheet comprising a film element which film element is provided with gripping openings at that end which is adjacent to the end of the casing provided with the removable end closing member, the gripping openings of the film elements not penetrating the whole of the thickness of the film element.

3. A film pack comprising a receptacle or casing having a removable end closing member and a pile of films in said casing, opaque interposition sheets between said films and connected thereto, each film and its sheet comprising a film element which film element is provided with gripping openings at that end which is adjacent to the end of the casing provided with the removable end closing member, the gripping openings of the film elements only penetrating the light sensitive films themselves without at the

same time affecting the opaque interposition sheets.

4. In a packing and exposing device for films a casing or exposing box comprising an outer casing with an exposing opening and a drawer adapted to transport films with exclusion of light, a pack within said exposing box and comprising a receptacle containing a pile of films each provided with gripping means at the end adjacent to the front end of said drawer, opaque interposition sheets between said films and connected thereto, the film containing receptacle being provided with a removable end closing member at the front end of the drawer of said exposing box said drawer being provided with gripping means at its front end said means being adapted to cooperate with said gripping means of said films and means for removing said end closing member of said film receptacle on withdrawing said drawer from the outer casing of the exposing box.

5. In a packing and exposing device for films a casing or exposing box comprising an outer casing with an exposing opening and a drawer adapted to transport films with exclusion of light, a pack within said exposing box and comprising a receptacle containing a pile of films each provided with gripping means at the end adjacent to the front end of said drawer, opaque interposition sheets between said films and connected thereto, the film containing receptacle being provided with a removable end closing member at the front end of the drawer of said exposing box said end closing member being adapted to be withdrawn on withdrawing the drawer and to be closed again on the pushing back of the drawer, gripping means provided at the front end of said drawer adapted to cooperate with said gripping means of said films so as to enable the drawer to withdraw films from said receptacle, and spring means for holding the gripping means of the drawer in engagement with the gripping means of the films during the withdrawal of the drawer.

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

JOSEPH SCHMUCK.

Witnesses:

WOLDEMAR HAUPT,
HENRY HASPER.