

Description

CROSS-REFERENCE TO RELATED APPLICATION

Reference is made to commonly assigned, co-pending, related PCT Patent Application No. (US-07/453,892), filed concurrently herewith by applicant herein and titled FILM PACKET HOLDER IMPROVEMENT.

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates generally to film assemblies, and particularly to such assemblies that provide for daylight-handling of one or more photosensitive film sheets therein in conjunction with a compatible film holder that is mountable on a photographic camera back.

Description of the Prior Art

The prior art is replete with film assemblies of the type referred to above. Examples may be found in the following documents.

U.S. Patent No. 818,543 - Discloses a photographic holder (g) in use with an assemblage comprising a film sheet (a) mounted on a carrier (b) and light-tightly enclosed by a withdrawable envelope (f); the assemblage has a manually graspable end portion extending outside the holder, where a medial part, but not the two lateral parts, of the enclosed carrier end is cut back to permit (by selective grasping) withdrawal of either the envelope alone or the whole assemblage.

U.S. Patent No. 3,586,501 - Discloses a self-processable film assemblage (10) in use with a film holder (32), the assemblage comprising a photosensitive film sheet (26) having at one end a transversely disposed "clip" (20) for closing a mating open end (12a) of a light-excluding envelope (12) telescopically received over the film sheet, the clip being adapted for selective engagement and disengagement by a latch (42) in the holder to prevent and permit, respectively, film sheet movement with the envelope when an externally accessible closed end (12b) thereof is pulled away from the holder, the closed end (12b) terminating in a pair of laterally offset graspable tabs (22, 24) extending respectively from opposing walls (14, 16) of the envelope, the film sheet (26) having a leader (50) extending therefrom toward the envelope closed end (12b) with a recessed end portion (50a) provided to allow only the envelope to be grasped and pulled from the holder, the envelope also having a stop-strip (46) transversely disposed thereon near its open end (12a) and engageable by another latch (48) in the holder to limit outward movement of the envel-

ope.

U.S. Patent No. 4,725,865 - Discloses a photographic film assemblage (1a) usable with a cooperating film holder (47), the assemblage comprising a carrier (1) having twin film sheets (2) removably mounted on opposite faces of a film-carrying region (3) thereof, with an elongate, narrow tab portion (6) extending longitudinally from one end of the film-carrying region and a rigid, light-sealing "clip" (8) disposed transversely over both carrier faces at the opposite end, together with a light-excluding envelope (14) having an open end (15) that is telescopically slidable over the carrier and film sheets into light-sealing engagement with the clip and a closed end (20) that both conformably encloses and extends beyond the carrier tab portion (6), so that (by selective grasping) either the envelope alone may be pulled away from the carrier and film sheets or the whole assemblage may be pulled together, the clip (8) being engageable by a cooperating tab (43) in the holder to prevent the carrier and film sheets from moving when only the envelope is to be withdrawn, the envelope also having a pair of stop-strips (14a) disposed transversely on both walls thereof near its open end (15), and engageable with a cooperating stop (43a) in the holder, to limit the extent of envelope withdrawal when either film sheet is to be exposed.

U.S. Patent No. 4,821,054 - Discloses a packet (P) for daylight-handling of photosensitive film (F, F') and a cooperating holder (H) mountable on a camera back. The packet (P) has film (F, F') removably attached to a carrier (C). The carrier (C) has, at one end (18), an asymmetrical tab (24) and, at its opposite end (20), a transverse light-locking element (30). Telescopically receivable over the carrier (C) and film (F, F') is a light-shielding envelope (E). The envelope (E) has an open end (46) that is closable by engagement with the light-locking element (30) and a closed end (44) with a squeezable area (62) that overlies and, when grasped, squeezes the tab (24), to prevent inadvertent separation of the envelope (E) from the carrier (C). An adjacent area (64), not overlying the tab (24), is graspable for pulling the squeezable area (62) free of the tab (24) and the envelope (E) away from the film (F, F'), to permit intended exposure. The envelope (E) also has, near its open end (46), a stop strip (66, 68) for limiting envelope (E) movement. The packet (P) is slidably insertable into, and withdrawable from, the cooperating holder (H), which includes a spring-loaded (132) pressure-applying member (130) for maintaining the film (F, F') in an exposure plane, a spring-loaded (140) latching member (138) engageable with the light-locking element (30) to retain the carrier (C) in place, a spring-loaded (142b, c, d) stopping member (142a) engageable with the stop strip (66, 68) to limit envelope (E) movement while the carrier (C) is retained, and a spring-loaded releasing member (144) that is manually actuatable (184) for neg-

ating (158, 168 & 166) the spring-loadings (132, 140 & 142b, c, d) on the pressure-applying, latching, and stopping members (130, 138 & 142a), to permit unrestricted withdrawal of the packet (P) from the holder (H). To withdraw the packet (P) from this holder (H), it is necessary to both actuate and then hold the spring-loaded releasing member (144) in its fully actuated position while the packet (P) is being withdrawn. Should the user let go of the releasing member (144) before the packet (P) has been completely withdrawn, the spring-loaded stopping member (142a) will intercept the exiting light-locking element (30) and may then tear that element (30) from its carrier (C) and/or become damaged by it. This holder (H) has thus posed a problem to users who fail to hold the releasing member (144) in its fully actuated position while they pull the packet (P) out of the holder.

SUMMARY OF THE INVENTION

Accordingly, a primary object of this invention has been to solve the foregoing problem. Another object has been to do so in a highly effective and efficient manner. Those and other objects have been achieved by the invention herein claimed.

This invention finds particular utility as an improvement in a film assemblage that is especially adapted for efficient and reliable use with a cooperating photographic holder. The film assemblage comprises:

- a) an elongate film carrier sheet with a portion of one of its shorter sides being longitudinally prolonged to form a tab;
- b) an elongate light sealing element secured to said carrier along the other shorter side of the carrier, said other shorter side being opposite to said tab side, said light sealing element having first and second flange portions partially overlying first and second major faces of said carrier sheet, respectively, said flange portions terminating in respective edge portions extending substantially parallel to the elongate direction of said light sealing element and projecting away from said first and second major faces of said carrier sheet;
- c) a photosensitive film sheet detachably attached to a major face of said carrier sheet, in a middle region lying between said two shorter sides;
- d) an elongate light shielding envelope, open at one end and sealed closed on all the other sides, so that said carrier with said attached film can be fully inserted through said open end and extracted therefrom; said envelope open end engaging said flange portions of said light sealing element when said carrier is fully inserted into the envelope, thereby providing a light tight closure of said envelope; said envelope having, at the side opposite to said open end, two separate squeezable

zones which can be squeezed between the fingers of a hand and are so disposed that, when the carrier sheet is fully inserted, the first zone overlies said carrier tab whereas the second zone does not overlie any part of said carrier;

e) a stop element secured to an exterior surface of said envelope in order that, when said film assemblage is placed inside a compatible film assemblage holder, said stop element limits the movement of said envelope within said holder by engagement with a cooperative arresting member provided therein;

said film assemblage being characterized by a portion of said flange edge portion being cut out, thereby forming in said flange edge portion a passage for said arresting member of said compatible film assemblage holder, in order to prevent said flange from being engaged by said arresting member when said film assemblage is extracted from said holder.

This invention, and its objects and advantages, will become more apparent in the detailed description of the preferred embodiment thereof presented hereinafter.

BRIEF DESCRIPTION OF THE DRAWINGS

In the detailed description of the preferred embodiment of this invention presented below, reference is made to the accompanying drawings, wherein like reference numerals denote like elements, and wherein:

Fig. 1 is a top-plan view of a photographic film assemblage, or film packet, constructed and configured in accordance with the preferred embodiment of this invention, showing the packet in its fully assembled and closed condition;

Fig. 2 is a top-plan view of the film packet depicted in Fig. 1, showing a light-shielding envelope thereof as withdrawn from a photosensitive film sheet therein;

Fig. 3 is an enlarged top-plan view of the film packet of Fig. 1 in its fully assembled and closed condition, showing (via broken lines) the photosensitive film sheet and a carrier sheet therefor as hidden within the light-shielding envelope;

Fig. 4 is an elevational view of the film packet of Fig. 3;

Fig. 5 is an enlarged bottom-plan view similar to Fig. 3 but showing (via broken lines) a second photosensitive film sheet on the other side of the carrier sheet;

Fig. 6 is an enlarged partial view of the film packet as depicted in Fig. 5, with the light-shielding envelope broken away to reveal a leading end section of the carrier sheet therewithin;

Fig. 7 is an enlarged partial top-plan view of the leading end section of the carrier sheet, showing details of a tab portion thereof;

Fig. 8 is a cross-sectional elevation of a photographic film holder in which the film packet of Figs. 1-7 is adapted for use on a cooperating camera back;

Figs. 9 and 10 are partial cross-sectional elevations showing an end region of the film holder of Fig. 8, Fig. 9 depicting operative components disposed in respective rest positions with a film packet locked thereby in a seated position, Fig. 10 illustrating the same components in their actuated positions with the film packet thus released and moving away from the seated position;

Figs. 11-13 are partial cross-sectional elevations all portraying operative components in their rest positions while a released film packet is being withdrawn, Fig. 11 showing the packet's movement-limiting and light-locking elements approaching the holder's movement arresting means, Fig. 12 depicting the light-locking element engaged with camming means on the arresting means, Fig. 13 illustrating the light-locking element moving freely past the arresting means.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Because certain parts of photographic film assemblies and holders therefor are well known, the following description is directed in particular to those elements forming, cooperating directly with, or relating to, this invention. Elements not specifically shown or described herein are selectable from those known in the relevant art.

Figs. 1-7 illustrate a photographic film assembly, or film packet, constructed and configured, according to the preferred embodiment of this invention, for cooperative use with the holder of Figs. 8-13. Figs. 1, 3, and 5 present plan views of such a packet, designated generally therein by the letter P, as it appears when in its fully assembled and closed condition.

Fig. 1 shows only the exteriorly visible components of packet P, as viewed from a first side thereof, including a light-shielding envelope E made of cardboard or other opaque material. As illustrated in Fig. 2, envelope E removably encloses a photosensitive film sheet F having leading and trailing ends 10 and 12, respectively, and an elongate carrier sheet C, to which film sheet F is detachably attached for facilitating use of the film sheet.

Figs. 3 and 5 present, respectively, top-plan and bottom-plan views of packet P, Fig. 3 showing the first side thereof seen in Fig. 1, Fig. 5 showing the opposite, or second, side. It will thus be seen in Figs. 3 and 5 that carrier sheet C (shown in broken lines) has first and second outward-facing surfaces 14 and 16 respectively. The carrier sheet includes leading and

trailing end sections 18 and 20, respectively, and an intermediate section 22 between the two end sections. As seen in Fig. 3, film sheet F is detachably attached to the first outward-facing surface 14 of intermediate section 22, with its leading and trailing ends 10 and 12 respectively oriented toward the leading and trailing end sections 18 and 20. Similarly, as seen in Fig. 5, a second photosensitive film sheet F' is detachably attached to the second outward-facing surface 16 of intermediate section 22, with its leading and trailing ends 10' and 12' respectively oriented toward leading and trailing end sections 18 and 20.

Leading end section 18 extends longitudinally beyond intermediate section 22 (to the right, as viewed in Figs. 3 and 5) and terminates in a tab 24 projecting therefrom as shown. Trailing end section 20 extends longitudinally beyond intermediate section 22 (to the left, as viewed in Figs. 3 and 5) and includes a transverse edge 28, along which is secured a transversely disposed light-locking element 30. Element 30 may be secured to end section 20 by crimping it thereto, as illustrated by the three series of dimples 32 extending parallel with, and adjacent to, edge 28.

As shown in Fig. 4 (which presents an end view of element 30), the light-locking element is generally V-shaped in cross section, having a vertex 30v with diverging first and second flange portions 30a and 30b extending angularly therefrom over the first and second outward-facing surfaces 14 and 16, respectively, of end section 20 and terminating in outward-projecting edges 31a and 31b. As shown in Figs. 3 and 5, edges 31a and 31b have spaced-apart pairs of openings, or cutouts, 33a and 33b, respectively, located near the lateral ends of element 30. When secured to end section 20 as shown, element 30 provides first and second recesses 34a and 34b disposed, respectively, between flange portions 30a and 30b and the outward-facing surfaces 14 and 16 of end section 20.

Light-shielding envelope E comprises first and second opposing walls 36 and 38, respectively, which are joined along their lateral edges 40 and 42 to provide a sleeve-like enclosure for receiving the carrier sheet and attached film sheets. The opposing interior surfaces of walls 36 and 38 comprise first and second inward-facing surfaces 36' and 38' (see Figs. 6 and 7) that respectively overlie the first and second outward-facing surfaces 14 and 16 of carrier sheet C when received therebetween. In like manner, the corresponding exterior surfaces of walls 36 and 38 comprise first and second outward-facing surfaces 36" and 38" (see Figs. 1-7) that respectively overlie the carrier sheet surfaces 14 and 16.

The envelope further includes longitudinally extending leading and trailing end portions 44 and 46 that respectively overlie the leading and trailing end sections 18 and 20 of the carrier sheet. Leading end

portion 44 is sealed closed along its outer edges, and its corners are beveled as shown at 48 and 50. Trailing end portion 46 by itself is left open to permit insertion and withdrawal of the carrier sheet and film sheets therethrough; but when those sheets are fully inserted as shown in Figs. 1 and 3-5, end portion 46 is closed by entry thereof into recesses 34a and 34b and compressive engagement with flange portions 30a and 30b of light-locking element 30.

To facilitate insertion of the carrier and film sheets through end portion 46 and fully into the envelope, the carrier sheet leading end section is beveled as shown at 52 and 54, and the two film sheets F and F' are detachably attached to the carrier sheet at their leading ends 10 and 10'. Also, to facilitate detaching the film sheets from the carrier sheet after withdrawal from the envelope, each film sheet is detachably attached only at its leading end, so that its trailing end and image area can be easily lifted from the carrier sheet and its leading end then peeled off.

It will be seen in Figs. 3 and 5-7 that the tab 24 on carrier sheet leading end section 18 is eccentrically disposed, relative to the carrier sheet longitudinal center line 1, and that it extends farther from intermediate section 22 than does any other portion of leading end section 18. That is to say, the leading end section 18 extends asymmetrically relative to center line 1 such that it has a longer portion, including tab 24, disposed at one side of the center line and a shorter portion 56, not including tab 24, at the other side of said line.

As illustrated in Figs. 3 and 5-7, tab 24 includes a rectangular aperture 58 cut through it. Although shown as rectangular, aperture 58 could as well take some other shape.

Referring now to Figs. 3 and 5, the envelope leading end portion 44 comprises first and second graspable zones 62 and 64, respectively, which are transversely aligned with each other. It will be seen that the first graspable zone 62 overlies tab aperture 58, so that, when grasped, the opposing envelope walls in zone 62 are squeezed together through aperture 58, thereby helping to prevent unintended relative movement between the envelope and the carrier sheet. It will also be noted that the second graspable zone 64 does not overlie tab 24 at all. Instead, it overlies a region inside the envelope that is transversely spaced from the tab and longitudinally spaced from the leading end section shorter portion 56, i.e., it overlies no part of the leading end section. Consequently, when grasped, the opposing envelope walls in zone 64 are squeezed together, entirely apart from the leading end section, so that relative movement between the envelope and the carrier sheet is not prevented.

As shown in Figs. 1-5, the envelope first and second walls 36 and 38 have a pair of movement-limiting elements, or stop strips, 66 and 68 transversely disposed on their outward-facing exterior surfaces 36"

and 38", respectively, near the envelope trailing end portion 46. Strips 66 and 68 may be made of cardboard or plastic and adhered or sealed to their respective envelope wall surfaces. Their thickness or height above those surfaces must be sufficient to be readily engageable by one or more cooperating members in a compatible film packet holder such as that disclosed in our published application No. WO89/12251.

Figs. 8-13 illustrate a photographic film packet holder H with which the film packet P, described above, is adapted for use on a cooperating camera back (not shown). The holder H comprises a substantially rectangular-shaped housing 100 having a frame portion 114 defining a film-exposure window 116; an access opening 118 configured to permit insertion and extraction of film packet P along a movement path 120 extending to and from, respectively, a seated position wherein the packet film sheets F and F' are aligned with window 116 and the packet light-locking element 30 is located in second end region 112; a movable blocking member 138 for engaging the packet light-locking element 30, when the packet is in its seated position, to thereby block movement of element 30 toward access opening 118.

Movably mounted on a housing front component 122, between front wall frame portion 114 and access opening 118, is a movement arresting means comprising a spaced-apart pair of arresting members 142 respectively disposed near the housing sides. Each of the arresting members 142 is movable in directions transverse to front wall 102; and each of them is normally urged, by influence of biasing means thereon, toward movement path 120, but in this case to engage the packet envelope movement-limiting element (stop strip 66 or 68) then facing front wall 102 during movement thereof from its seated position toward the access opening, to thereby arrest further movement thereof toward the opening. Each arresting member 142 includes a protruding edge portion 142a that is normally biased toward path 120 by a cantilever spring element 142b having a fixed end portion secured to front wall 102 and a movable spring leg 142d which depends from element 142b toward rear wall 104. Extending angularly from edge portion 142a toward light-locking element 30 is a camming means comprising a deflecting ramp 142e disposed for engagement by the packet light-locking element 30 during movement thereof toward the access opening, to deflect and guide element 30 past the arresting member and thereby facilitate continued movement thereof toward the opening. To further facilitate movement of element 30 past the two arresting members 142, the outward-projecting edges 31a and 31b of flange portions 30a and 30b are provided with the aforementioned pairs of openings, or cutouts, 33a and 33b, respectively. The cutouts are aligned with but made slightly narrower than the deflecting ramps 142e, so that the adjacent portions of the confronting one of

edges 31a and 31b will engage and ride on those ramps toward the protruding edge portions 142a. However, the cutouts are aligned with but made slightly larger than the protruding edge portions 142a, so as to allow the engaged one of flange portions 30a and 30b to move freely past those protruding edge portions and thence to the access opening.

Slidably mounted in the film packet holder H is a releasing member, or slider, 144, movable in first and second opposing directions.

Slider 144 is provided with means, operatively associated with a plate 130, blocking member 138, and arresting members 142, and responsive to said manual movement in the second direction, for negating the aforementioned biasing means influences that normally urge plate 130 and members 138 and 142 toward movement path 120, so as to remove the plate and the blocking and arresting members from said path and thereby release the film packet for unrestricted movement therealong from its seated position and out through the access opening.

The slider negating means comprises camming means 166 and 168 in first and second end portions 154 and 156, respectively, which interact with the arresting member spring legs 142d and the blocking member spring legs 140b', respectively, to control their respective biasing influences on the arresting and blocking members. The first end portion camming means 166 includes a pair of laterally projecting ears 170 and 172 respectively, in engageable relation with spring legs 142d. The second end portion camming means 168 includes a tapered tab 174 that is bifurcated to provide a pair of tapered tab portions 174' which project longitudinally toward blocking member 138 for symmetrical engagement with spring legs 140b' about their common longitudinal center line.

Operation of holder H in use with packet P will now be described.

When slider 144 is in its rest position, spring elements 132 urges the plate toward the movement path so as to press packet P (when in its seated position) against front wall frame portion 114. Also, as shown in Fig. 9, spring legs 140b' supports blocking member 138 in its position blocking the packet light-locking element 30. Also spring legs 142d, which depend from their respective cantilever spring elements 142b of arresting members 142, are disposed in engageable relation with, but not yet engaged by the slider, while the spring elements 142b maintain the arresting member protruding edge portions 142a in their movement-path positions for engagement by the packet movement-limiting stop strip 66 or 68.

Now, when slider 144 is moved from its rest position to its fully actuated position by pushing inwardly, the slider moves into engagement with spring legs 142d so as to pivot them clockwise against the biasing influences of spring elements 142b, and thereby pivot the arresting member protruding edge portions 142a

clockwise (upwardly) out of the movement path. By a single actuation of slider 144, the pressure-applying plate 130, the blocking member 138, and the arresting members 142 are all moved away from the movement path, thereby permitting unrestricted movement of the film packet into and out of the holder.

To use film packet P with holder H, first the packet side labeled "A" in Figs. 1 and 3 should be oriented to face the holder film-exposure window 116. Then, with slider 144 depressed, the packet should be inserted through access opening 118 until it reaches its seated position. Now, with slider 144 released and the holder mounted on a camera back, with its window 116 facing the camera lens, the packet envelope should be grasped at its graspable zone 64 (labeled 1 in Figs. 1-3), pulled outwardly, and thereby withdrawn until it is stopped by engagement of its stop strip 66 with the arresting member protruding edge portions 142a disposed in the movement path, while the carrier and film sheets are retained in their seated position by engagement of light-locking element 30 with blocking member 138 also in the movement path. The film sheet F is thus uncovered and ready for a photographic exposure via the camera shutter and lens.

After that exposure, the envelope should again be grasped at zone 64 (again, 1 in Figs. 1-3) and pushed in to its seated position, thereby re-covering the now-exposed film sheet. Then, with the slider 144 again depressed to thereby release the packet for unrestricted withdrawal (as explained above), the envelope should be grasped at zone 62 (labeled 2 in Figs. 1-3), so as to squeeze the envelope walls in that zone together through the aperture 58 in tab 24, and the whole packet thus pulled out of the holder. The packet may then be turned over so that its side labeled "B" in Fig. 5 faces the holder window 116, and the foregoing steps repeated to effect a photographic exposure of the other film sheet F'.

With both film sheets now exposed and safely recovered by the envelope and light-locking element 30, the envelope walls again become squeezed together through tab aperture 58 when the packet is once again grasped at zone 62 (labeled 2 in Fig. 5) and removed from the holder. With the film sheets still protected by the envelope and light-locking element, the packet may then be safely handled, stored, and/or transported until disassembled for processing under controlled light conditions.

Preferably, in the foregoing procedure for withdrawing the packet from the holder, slider 144 should be held fully depressed, so as to keep slider 144 in its fully actuated position, until the packet has been completely removed. It may occur, however, that the user, after first depressing slider 144 and thereby releasing light-locking element 30, lets go of the slider, and thereby allows slider 144 to return to its rest position, before the envelope stop strip 66 or 68 has

passed the arresting members 142. Figs. 11-13 illustrate what happens in that situation, wherein the arresting members have returned to their movement-path positions while the packet is still being withdrawn. Fig. 11 shows both stop strip 66 and light-locking element 30 as they are approaching arresting member 142. Fig. 12 shows element 30 after it has engaged the arresting member ramp 142e and is being deflected thereby downwardly (as viewed in Fig. 12). As element 30 is thus deflected, the stop strip 66 preceding it also is deflected downwardly so as to clear the protruding edge portion 142a. Fig. 13 shows element 30 after the confronting edge 31a on its flange portion 30a has passed ramp 142e and is just clearing edge portion 142a because of the cutouts 33a provided in that edge. It will thus be seen that, with the arresting member ramps 142e disposed to intercept and deflect element 30 so as to guide stop strip 66 past the protruding edge portions 142a, and with the flange portion edge cutouts 33a providing clearance for element 30 to then ride past edge portions 142a, the film packet can still be freely withdrawn even when the arresting members have prematurely resumed their movement-path positions after the blocking member 38 has first been actuated to release element 30.

Claims

1. A photographic film assemblage (P) comprising:
 - a) an elongate film carrier sheet (C) with a portion of one of its shorter sides (18) being longitudinally prolonged to form a tab (24);
 - b) an elongate light sealing element (30) secured to said carrier (C) along the other shorter side (20) of the carrier, said other shorter side (20) being opposite to said tab side (18), said light sealing element (30) having first and second flange portions (30a, 30b) partially overlying first and second major faces of said carrier sheet (C), respectively, said flange portions terminating in respective edge portions (31a, 31b) extending substantially parallel to the elongate direction of said light sealing element (30) and projecting away from said first and second major faces of said carrier sheet (C);
 - c) a photosensitive film sheet (F) detachably attached to a major face (14) of said carrier sheet (C), in a middle region (22) lying between said two shorter sides (18, 20);
 - d) an elongate light shielding envelope (E), open at one end (46) and sealed closed on all the other sides, so that said carrier (C) with said attached film (F) can be fully inserted through said open end and extracted therefrom; said envelope open end (46) engaging

said flange portions (30a, 30b) of said light sealing element (30) when said carrier is fully inserted into the envelope, thereby providing a light tight closure of said envelope; said envelope (E) having, at the side (44) opposite to said open end (46), two separate squeezable zones (62, 64) which can be squeezed between the fingers of a hand and are so disposed that, when the carrier sheet is fully inserted, the first zone (62) overlies said carrier tab (24) whereas the second zone (64) does not overlie any part of said carrier (C);

e) a stop element (66) secured to an exterior surface of said envelope (E) in order that, when said film assemblage is placed inside a compatible film assemblage holder (H), said stop element (66) limits the movement of said envelope (E) within said holder (H) by engagement with a cooperative arresting member (142) provided therein;

said film assemblage being characterized by a portion (33a) of said flange edge portion (31a) being cut out, thereby forming in said flange edge portion (31a) a passage for said arresting member (142) of said compatible film assemblage holder (H), in order to prevent said flange (30a) from being engaged by said arresting member (142) when said film assemblage is extracted from said holder.

2. A photographic film assemblage (P) as claimed in Claim 1 wherein:
 - said tab (24) is eccentrically disposed, relative to an imaginary longitudinal center line (1) of said carrier sheet (C), and extends farther from said middle region (22) than does any other portion (56) of said one shorter side (18); and
 - said first and second squeezable zones (62, 64) are aligned transversely with respect to the longitudinal axis of said envelope (E).
3. A photographic film assemblage (P) as claimed in Claim 1 wherein said one shorter side (18), of said film carrier sheet extends asymmetrically relative to an imaginary longitudinal center line (1) of said carrier sheet (C), said one shorter side (18) thus having a longer portion thereof, including said tab (24), disposed at one side of said center line (1) and a shorter portion thereof (56), not including said tab (24), disposed at the other side of said center line (1); and
 - said first and second squeezable zones (62, 64) are aligned transversely with respect to the longitudinal axis of said envelope (E).
4. A photographic film assemblage (P) as claimed in Claim 1 wherein:
 - said tab (24) includes means defining an

passed the arresting members 142. Figs. 11-13 illustrate what happens in that situation, wherein the arresting members have returned to their movement-path positions while the packet is still being withdrawn. Fig. 11 shows both stop strip 66 and light-locking element 30 as they are approaching arresting member 142. Fig. 12 shows element 30 after it has engaged the arresting member ramp 142e and is being deflected thereby downwardly (as viewed in Fig. 12). As element 30 is thus deflected, the stop strip 66 preceding it also is deflected downwardly so as to clear the protruding edge portion 142a. Fig. 13 shows element 30 after the confronting edge 31a on its flange portion 30a has passed ramp 142e and is just clearing edge portion 142a because of the cutouts 33a provided in that edge. It will thus be seen that, with the arresting member ramps 142e disposed to intercept and deflect element 30 so as to guide stop strip 66 past the protruding edge portions 142a, and with the flange portion edge cutouts 33a providing clearance for element 30 to then ride past edge portions 142a, the film packet can still be freely withdrawn even when the arresting members have prematurely resumed their movement-path positions after the blocking member 38 has first been actuated to release element 30.

Claims

1. A photographic film assemblage (P) comprising:
 - a) an elongate film carrier sheet (C) with a portion of one of its shorter sides (18) being longitudinally prolonged to form a tab (24);
 - b) an elongate light sealing element (30) secured to said carrier (C) along the other shorter side (20) of the carrier, said other shorter side (20) being opposite to said tab side (18), said light sealing element (30) having first and second flange portions (30a, 30b) partially overlying first and second major faces of said carrier sheet (C), respectively, said flange portions terminating in respective edge portions (31a, 31b) extending substantially parallel to the elongate direction of said light sealing element (30) and projecting away from said first and second major faces of said carrier sheet (C);
 - c) a photosensitive film sheet (F) detachably attached to a major face (14) of said carrier sheet (C), in a middle region (22) lying between said two shorter sides (18, 20);
 - d) an elongate light shielding envelope (E), open at one end (46) and sealed closed on all the other sides, so that said carrier (C) with said attached film (F) can be fully inserted through said open end and extracted therefrom; said envelope open end (46) engaging

said flange portions (30a, 30b) of said light sealing element (30) when said carrier is fully inserted into the envelope, thereby providing a light tight closure of said envelope; said envelope (E) having, at the side (44) opposite to said open end (46), two separate squeezable zones (62, 64) which can be squeezed between the fingers of a hand and are so disposed that, when the carrier sheet is fully inserted, the first zone (62) overlies said carrier tab (24) whereas the second zone (64) does not overlie any part of said carrier (C);

e) a stop element (66) secured to an exterior surface of said envelope (E) in order that, when said film assemblage is placed inside a compatible film assemblage holder (H), said stop element (66) limits the movement of said envelope (E) within said holder (H) by engagement with a cooperative arresting member (142) provided therein;

said film assemblage being characterized by a portion (33a) of said flange edge portion (31a) being cut out, thereby forming in said flange edge portion (31a) a passage for said arresting member (142) of said compatible film assemblage holder (H), in order to prevent said flange (30a) from being engaged by said arresting member (142) when said film assemblage is extracted from said holder.

2. A photographic film assemblage (P) as claimed in Claim 1 wherein:
 - said tab (24) is eccentrically disposed, relative to an imaginary longitudinal center line (1) of said carrier sheet (C), and extends farther from said middle region (22) than does any other portion (56) of said one shorter side (18); and
 - said first and second squeezable zones (62, 64) are aligned transversely with respect to the longitudinal axis of said envelope (E).
3. A photographic film assemblage (P) as claimed in Claim 1 wherein said one shorter side (18), of said film carrier sheet extends asymmetrically relative to an imaginary longitudinal center line (1) of said carrier sheet (C), said one shorter side (18) thus having a longer portion thereof, including said tab (24), disposed at one side of said center line (1) and a shorter portion thereof (56), not including said tab (24), disposed at the other side of said center line (1); and
 - said first and second squeezable zones (62, 64) are aligned transversely with respect to the longitudinal axis of said envelope (E).
4. A photographic film assemblage (P) as claimed in Claim 1 wherein:
 - said tab (24) includes means defining an



aperture (58) therein; and
said first graspable zone (62) overlies said aperture (58).

5. A photographic film assemblage (P) as claimed in Claim 1 wherein said film sheet (F) is detachably attached to said major face (14) of said middle region (22) at its leading end (10) thereof only.
6. A photographic film assemblage (P) as claimed in Claim 1 further comprising a second photosensitive film sheet (F'), said second film sheet (F') being detachably attached to the middle of the other major face (16) of said carrier sheet (22).

Patentansprüche

1. Fotografische Filmeinheit (P) mit
 - a) einem länglichen Filmträgerblatt (C), wobei ein Teilstück eines (18) seiner kürzeren Abschnitte (18, 20) in Längsrichtung verlängert ist und einen Vorsprung (24) bildet;
 - b) einem länglichen am Trägerblatt (C) entlang seines anderen kürzeren Abschnitts (20) befestigten Lichtschutzelement (30), wobei der andere kürzere Abschnitt (20) dem Abschnitt (18) mit dem Vorsprung gegenüberliegt, das Lichtschutzelement (30) einen ersten und zweiten Flanschteil (30a, 30b) aufweist, die über einer ersten bzw. zweiten Hauptfläche des Trägerblatts (C) liegen, und wobei die Flanschteile jeweils als Kanten (31a, 31b) enden, die im wesentlichen parallel zur Längsrichtung des Lichtschutzelements (30) verlaufen und von der ersten und zweiten Hauptfläche des Trägerblatts (C) abstehen;
 - c) einem lichtempfindlichen Filmblatt (F), das in einem zwischen den beiden kürzeren Abschnitten (18, 20) befindlichen mittleren Abschnitt (22) mit einer Hauptfläche (14) des Trägerblatts (C) lösbar verbunden ist;
 - d) einer länglichen Lichtschutzhülle (E), die an einem Ende (46) offen und an allen anderen Seiten versiegelt ist, so daß das Trägerblatt (C) mit dem daran befestigten Film (F) durch das offene Ende ganz eingeschoben und wieder herausgezogen werden kann; wobei das offene Ende (46) der Hülle (E) mit den Flanschteilen (30a, 30b) des Lichtschutzelements (30) in Eingriff kommt, wenn das Trägerblatt ganz in die Hülle eingeschoben ist, wodurch die Hülle lichtdicht verschlossen wird; und wobei die Hülle (E) auf der dem offenen Ende gegenüberliegenden Seite (44) zwei getrennte zusammendrückbare Stellen (62, 64) aufweist, die zwischen den Fingern einer Hand eingedrückt werden können und

so angeordnet sind, daß bei ganz eingeschobenem Trägerblatt die erste Stelle (62) über dem Vorsprung (24) des Trägerblatts liegt, während die zweite Stelle (64) nicht über dem Trägerblatt (C) liegt;

e) einem an einer Außenfläche der Hülle (E) befestigten Stoppelement (66), das bei in einer kompatiblen Filkkassette (H) eingelegter Filmeinheit die Bewegung der Hülle (E) innerhalb der Kassette (H) dadurch begrenzt, daß es mit einer in der Kassette vorgesehenen Sperrvorrichtung (142) in Eingriff kommt; dadurch gekennzeichnet, daß ein Teil (33a) der Flanschante (31a) ausgespart ist und dadurch in dieser Kante ein Durchgang für die Sperrvorrichtung (142) der kompatiblen Filmkassette (H) gebildet wird, damit beim Herausziehen der Filmeinheit aus der Kassette der Flansch (30a) mit der Sperrvorrichtung (142) nicht in Eingriff kommt.

2. Filmeinheit (P) nach Anspruch 1, dadurch gekennzeichnet, daß
 - der Vorsprung (24) exzentrisch zu einer gedachten in Längsrichtung des Trägerblatts (C) verlaufenden Mittellinie (1) angeordnet ist und sich weiter als jeder andere Teil (56) des einen kürzeren Abschnitts (18) über den mittleren Abschnitt (22) hinaus erstreckt; und
 - die erste und zweite zusammendrückbare Stelle (62, 64) quer zur Längsachse der Hülle (E) ausgerichtet sind.
3. Filmeinheit (P) nach Anspruch 1, dadurch gekennzeichnet, daß sich der eine kürzere Abschnitt (18) des Filmträgerblatts asymmetrisch zu einer gedachten in Längsrichtung des Trägerblatts (C) verlaufenden Mittellinie (1) erstreckt, wobei der eine kürzere Abschnitt (18) somit ein auf einer Seite der Mittellinie (1) angeordnetes längeres Teilstück einschließlich des Vorsprungs (24) und ein auf der anderen Seite der Mittellinie angeordnetes kürzeres Teilstück ohne den Vorsprung (24) aufweist, und wobei die erste und zweite zusammendrückbare Stelle (62, 64) quer zur Längsachse der Hülle (E) ausgerichtet sind.
4. Filmeinheit (P) nach Anspruch 1, dadurch gekennzeichnet, daß
 - der Vorsprung (24) Mittel aufweist, die eine Öffnung (58) bilden; und
 - die erste zusammendrückbare Stelle (62) über der Öffnung (58) liegt.
5. Filmeinheit (P) nach Anspruch 1, dadurch gekennzeichnet, daß das Filmblatt (F) nur an seinem vorderen Ende (10) mit der Hauptfläche (14)



des mittleren Abschnitts (22) lösbar verbunden ist.

6. Filmeinheit (P) nach Anspruch 1, gekennzeichnet durch ein zweites lichtempfindliches Filmbblatt (F'), das mit dem mittleren Abschnitt (22) der anderen Hauptfläche (16) des Trägerblatts (C) lösbar verbunden ist.

Revendications

1. Ensemble (P) à film photographique, comprenant :

a) une feuille allongée (C) de support de film ayant une partie de l'un de ses petits côtés (18) qui est prolongée longitudinalement afin qu'elle forme un onglet (24),

b) un élément allongé (30) d'étanchéité à la lumière fixé au support (C) le long de l'autre petit côté (20) du support, l'autre petit côté (20) étant opposé au côté (18) de l'onglet, l'élément (30) d'étanchéité à la lumière ayant une première et une seconde partie de flasque (30a, 30b) recouvrant partiellement la première et la seconde grande face de la feuille de support (C) respectivement, les parties de flasque se terminant par des parties respectives de bord (31a, 31b) qui sont pratiquement parallèles à la direction allongée de l'élément (30) d'étanchéité à la lumière et qui dépassent des première et seconde grandes faces de la feuille de support (C),

c) une feuille (F) de film photosensible fixée de façon amovible à une grande face (14) de la feuille de support (C), dans une région médiane (22) placée entre les deux petits côtés (18, 20),

d) une enveloppe allongée (E) de protection contre la lumière, ouverte à une première extrémité (46) et fermée de manière étanche sur tous les autres côtés, si bien que le support (C), avec le film fixé (F), peut être totalement introduit par l'extrémité ouverte et retiré par celle-ci, l'extrémité ouverte (46) de l'enveloppe étant au contact des parties de flasque (30a, 30b) de l'élément (30) d'étanchéité à la lumière lorsque le support est totalement introduit dans l'enveloppe, et formant ainsi une fermeture étanche à la lumière de l'enveloppe, l'enveloppe (E) ayant, du côté (44) opposé à l'extrémité ouverte (46), deux zones séparées (62, 64) qui peuvent être serrées entre les doigts d'une main et qui sont disposées afin que, lorsque la feuille de support est totalement introduite, la première zone (62) recouvre l'onglet (24) du support alors que la seconde zone (64) ne recouvre aucune partie du

support (C), et

e) un élément d'arrêt (66) fixé à une surface externe de l'enveloppe (E) afin que, lorsque l'ensemble à film est placé à l'intérieur d'un organe compatible de maintien (H) du film, l'élément d'arrêt (66) limite le déplacement de l'enveloppe (E) à l'intérieur de l'organe de maintien (H) par contact avec un organe d'arrêt (142) placé à l'intérieur, l'ensemble à film étant caractérisé par la découpe d'une portion (33a) de la partie (31a) de bord de flasque, formant dans cette partie (31a) de bord de flasque un passage pour l'organe d'arrêt (142) de l'organe de maintien (H), afin que le flasque (30a) ne puisse pas coopérer avec l'organe d'interruption (142) lorsque l'ensemble à film est extrait de l'organe de maintien.

2. Ensemble (P) à film photographique selon la revendication 1, dans lequel :

l'onglet (24) est disposé excentriquement par rapport à un axe longitudinal central imaginaire (1) de la feuille de support (C), et dépasse de la région médiane (22) plus loin que toute autre partie (56) du premier petit côté (18), et

la première et la seconde zone (62, 64) qui peuvent être serrées sont alignées transversalement à l'axe longitudinal de l'enveloppe (E).

3. Ensemble (P) à film photographique selon la revendication 1, dans lequel le premier petit côté (18) de la feuille de support de pellicule est disposé asymétriquement par rapport à un axe central longitudinal imaginaire (1) de la feuille de support (C), ce premier petit côté (18) ayant ainsi une partie relativement longue qui comprend l'onglet (24) et qui est placée d'un premier côté de l'axe central (1) et une partie relativement courte (56) qui ne comporte pas l'onglet (24) et qui est disposée de l'autre côté de l'axe central (1), et

la première et la seconde zone (62, 64) qui peuvent être serrées sont alignées transversalement à l'axe longitudinal de l'enveloppe (E).

4. Ensemble (P) à film photographique selon la revendication 1, dans lequel :

l'onglet (24) comporte un dispositif délimitant une ouverture (58) qui la traverse, et

la première zone (62) qui peut être saisie recouvre cette ouverture (58).

5. Ensemble (P) à film photographique selon la revendication 1, dans lequel la feuille de film (F) est fixée de façon amovible à la grande face (14) de la région médiane (22) à son extrémité avant (10) uniquement.



6. Ensemble (P) à film photographique selon la revendication 1, comprenant en outre une seconde feuille (F') de film photosensible, cette seconde feuille (F') de film étant fixée de façon amovible au milieu de l'autre face principale (16) de la feuille de support (22).

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