

- [54] **FILM UNITS, PACK AND CAMERA**
- [72] Inventor: **Hubert Nerwin**, Rochester, N.Y.
- [73] Assignee: **Eastman Kodak Company**, Rochester, N.Y.
- [22] Filed: **Oct. 2, 1970**
- [21] Appl. No.: **77,486**
- [52] U.S. Cl. .... **95/13, 95/19, 96/76 R**
- [51] Int. Cl. .... **G03c 1/48**
- [58] Field of Search ..... **95/13, 14, 19, 22; 46/29, 76**

3,046,861 7/1962 Eloranta.....95/13

*Primary Examiner*—Samuel S. Matthews  
*Assistant Examiner*—Alan A. Mathews  
*Attorney*—Robert W. Hampton and J. Addison Mathews

[57] **ABSTRACT**

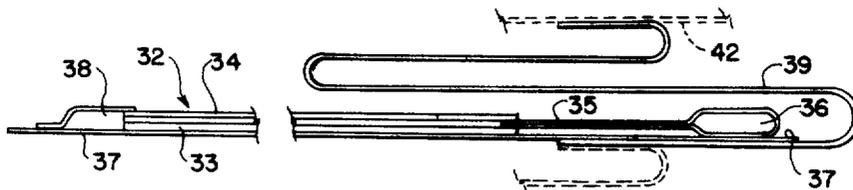
Self-processing photographic film units and a film pack and camera for use therewith. The film units include smaller image-recording units that are exposed and then translated from the pack and expelled from the camera by "dry" leaders. The dry leaders may be collected on a compact roll, or pulled from the pack and camera, for disposal without damage to any sensitive environment such as clothing. Processing fluid containers (pods) and excess fluid collectors (traps) are associated with the recording units on carrier sheets in the pack, but are translated with the carrier sheet by the dry leaders to a pack waste-storage chamber as the recording units are expelled from the camera. Thus, all "wet" processing waste materials, e.g., the carriers, pods and traps, are retained in the pack for disposal after exhaustion of the pack and without damage to any sensitive environment.

**8 Claims, 15 Drawing Figures**

[56] **References Cited**

**UNITED STATES PATENTS**

3,479,184	11/1969	Land .....	95/13
3,621,768	11/1971	Chen .....	95/89 X
1,368,029	2/1921	Fawkes et al. ....	95/22 X
2,903,951	9/1959	Land .....	95/19
2,909,977	10/1959	Eburn .....	95/13 X
2,978,971	4/1961	Eburn .....	95/13
3,152,529	10/1964	Erlichman .....	95/13
3,161,118	12/1964	Wareham .....	95/13 X
3,161,122	12/1964	Hamilton .....	95/89
3,270,653	9/1966	Bachelor .....	95/13 X
3,386,361	6/1968	Danti .....	95/13



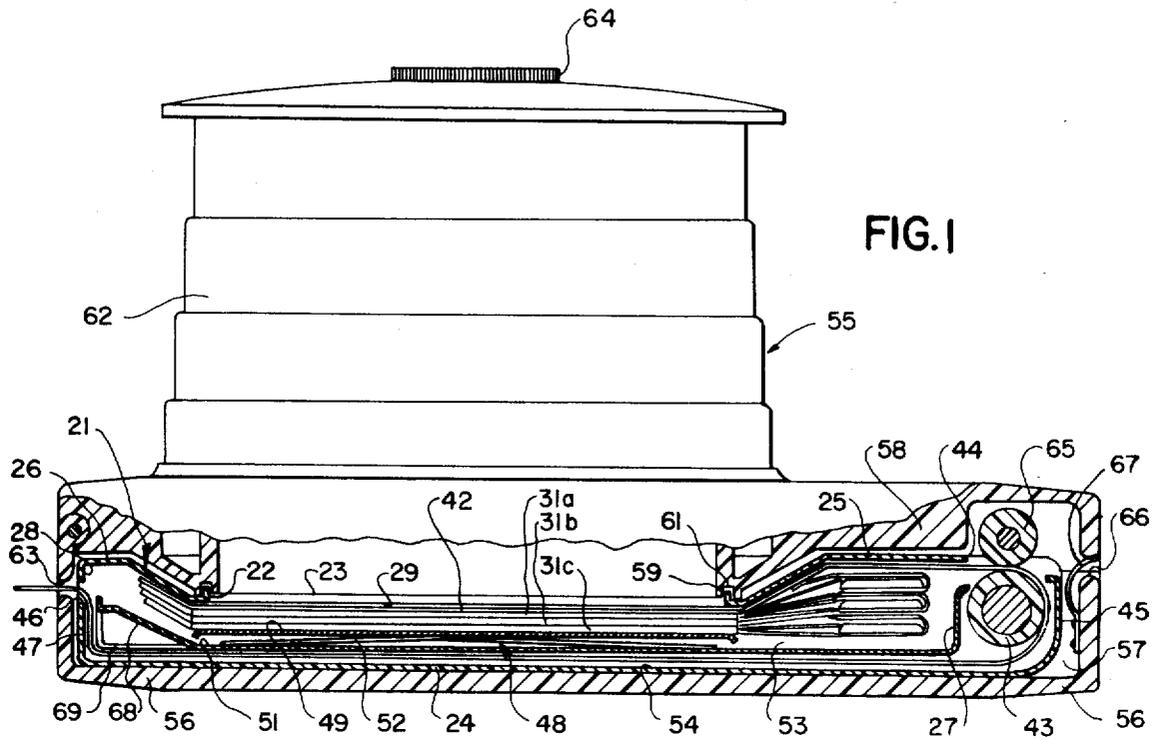


FIG. 1

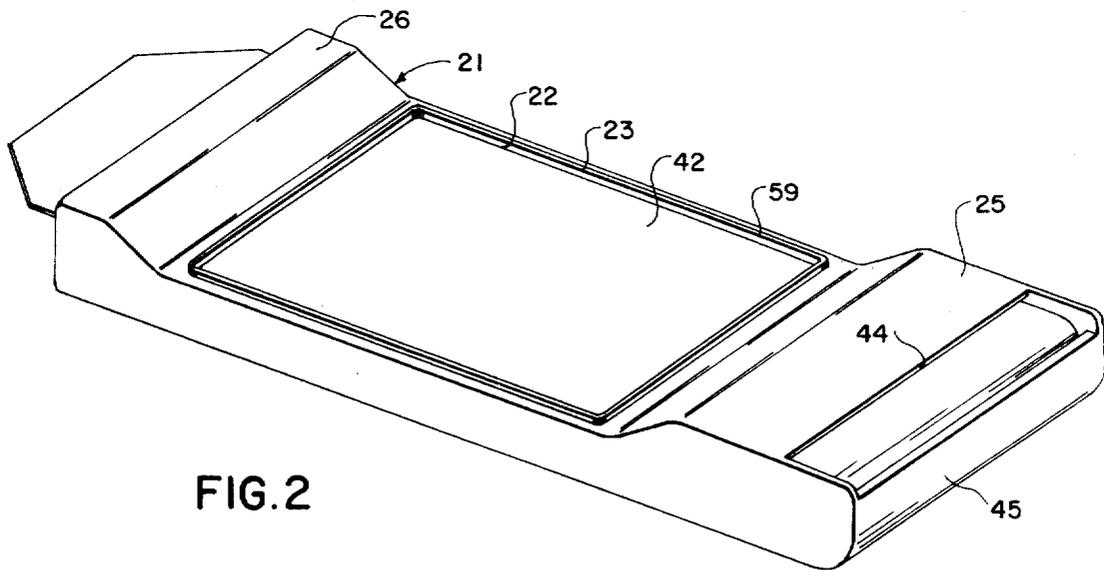
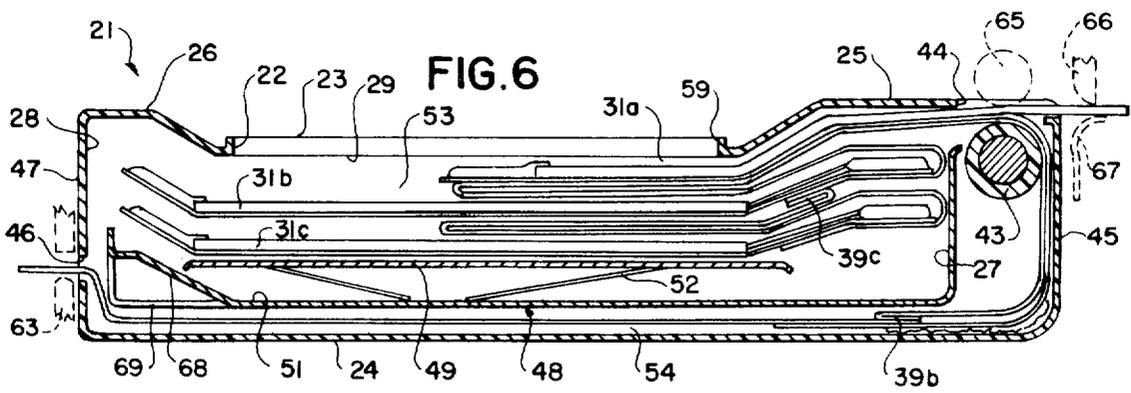
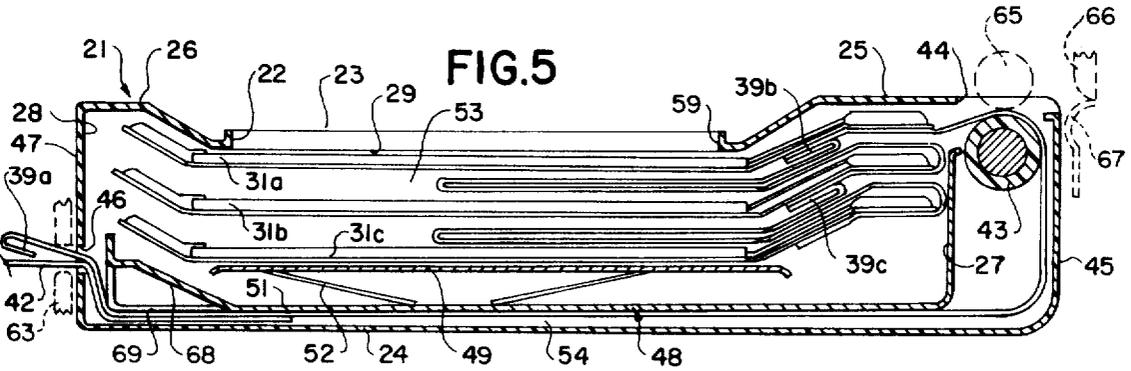
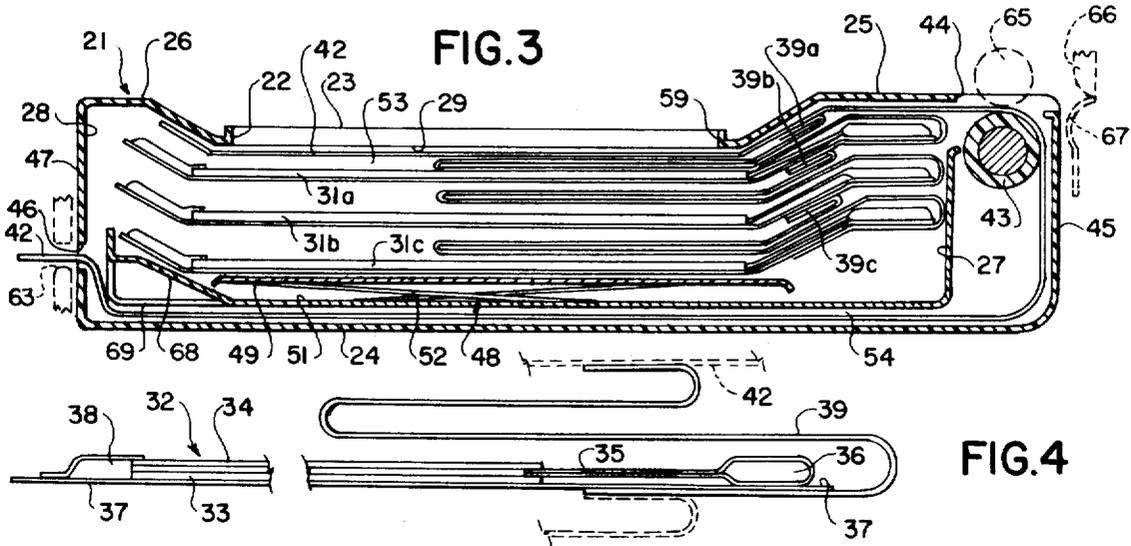


FIG. 2

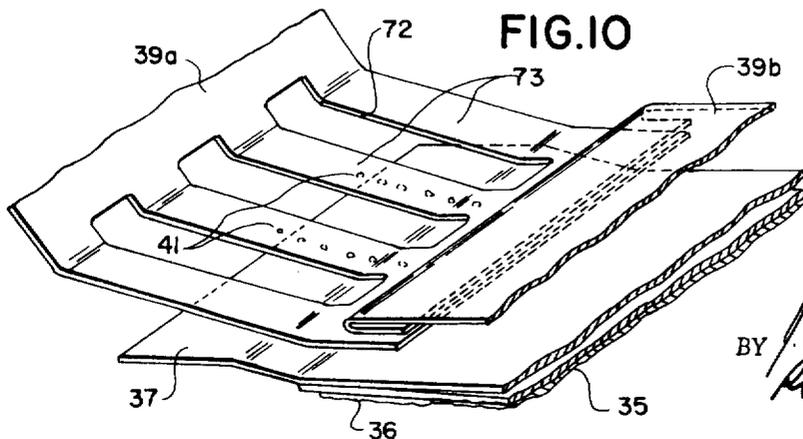
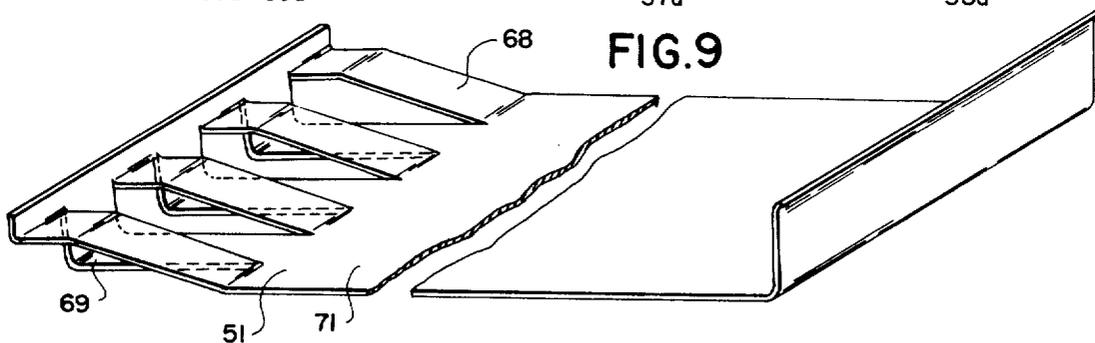
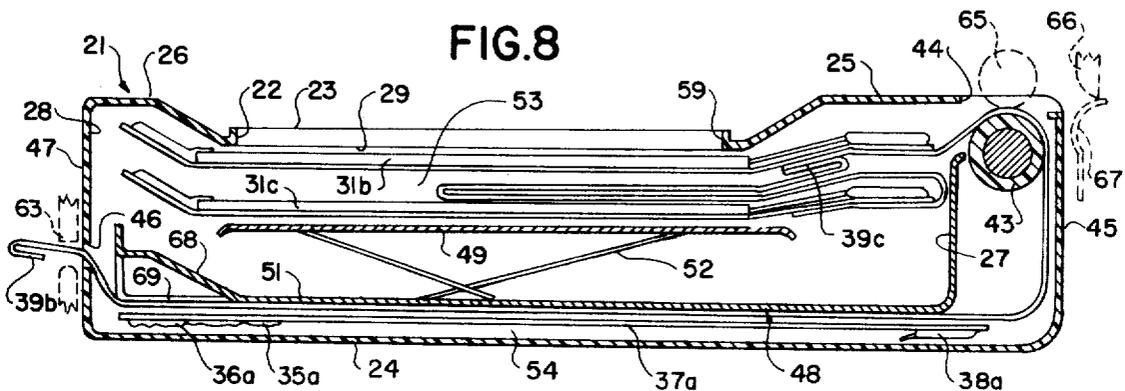
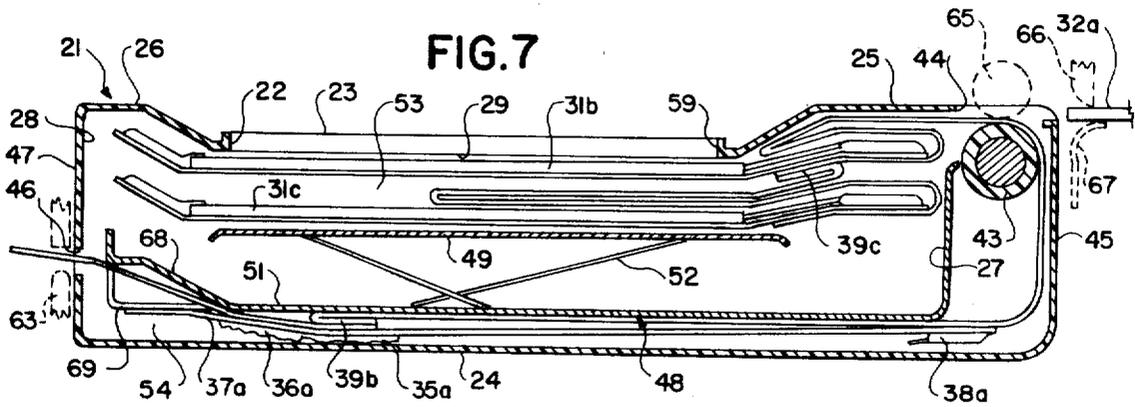
HUBERT NERWIN  
INVENTOR.

BY *J. Addington Mattheis*  
*Robert W. Hampton*  
ATTORNEYS



HUBERT NERWIN  
INVENTOR.

BY *J. Addington Mathew*  
*Robert W. Hampton*  
ATTORNEYS



HUBERT NERWIN  
INVENTOR.

BY *Adrian Hatten*  
*Robert W. Hampton*

ATTORNEYS

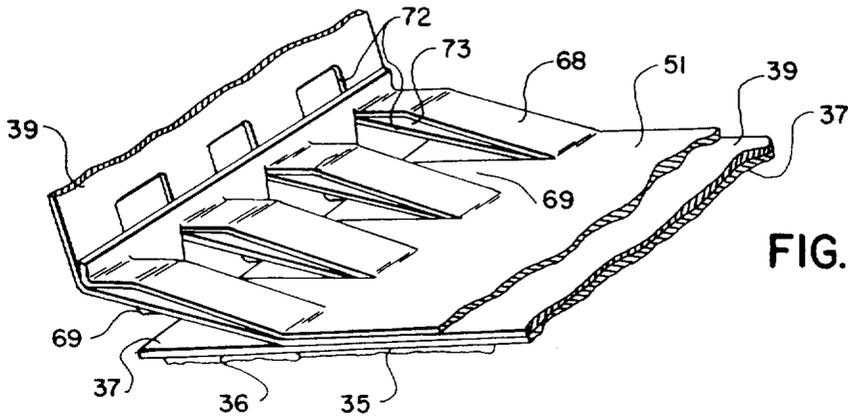


FIG. II

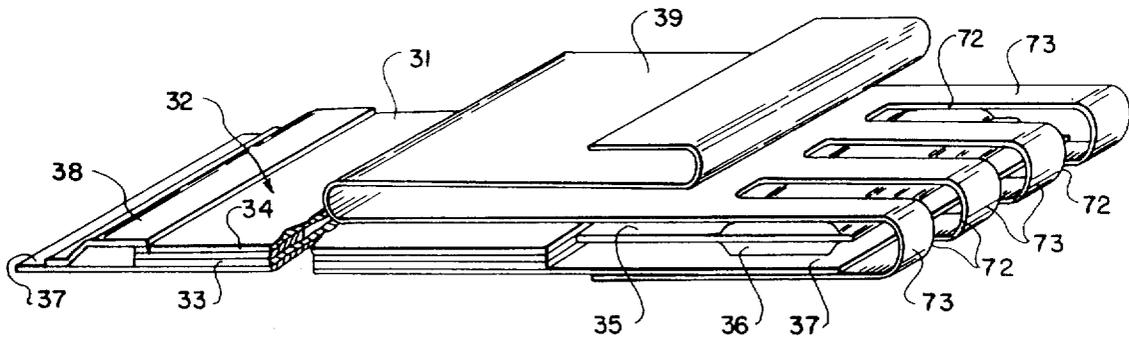


FIG. 12

HUBERT NERWIN  
INVENTOR.

BY *Address in the*  
*Robert W. Hampton*  
ATTORNEYS

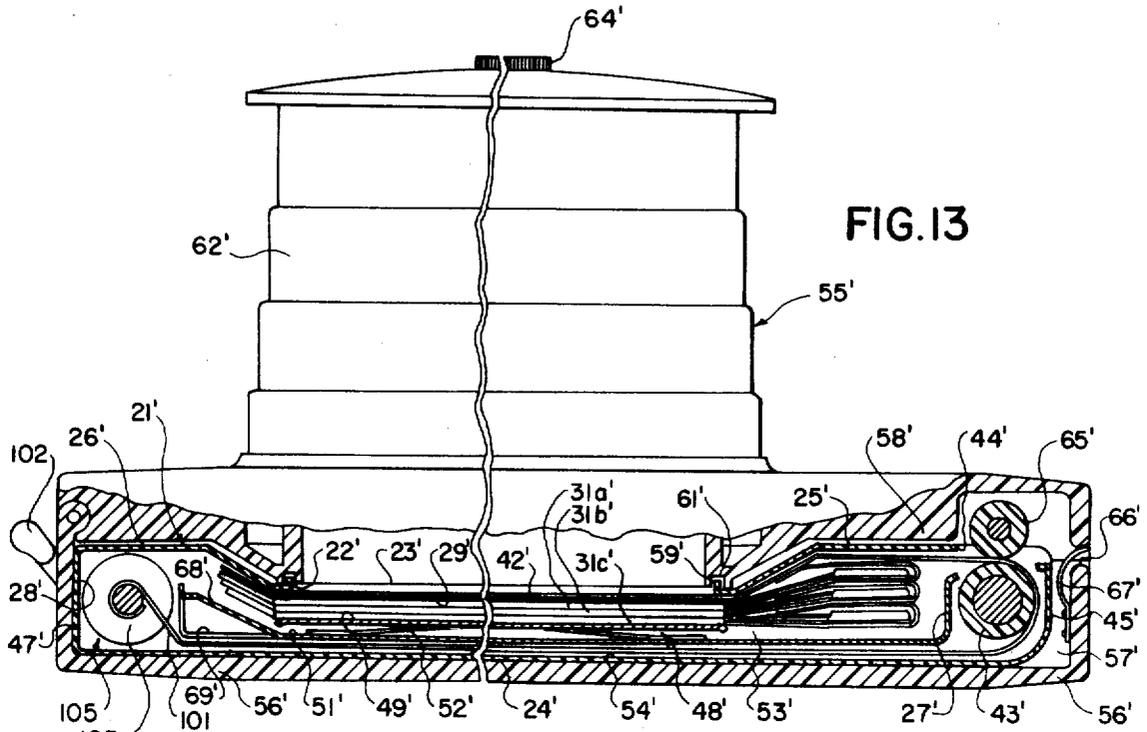


FIG. 13

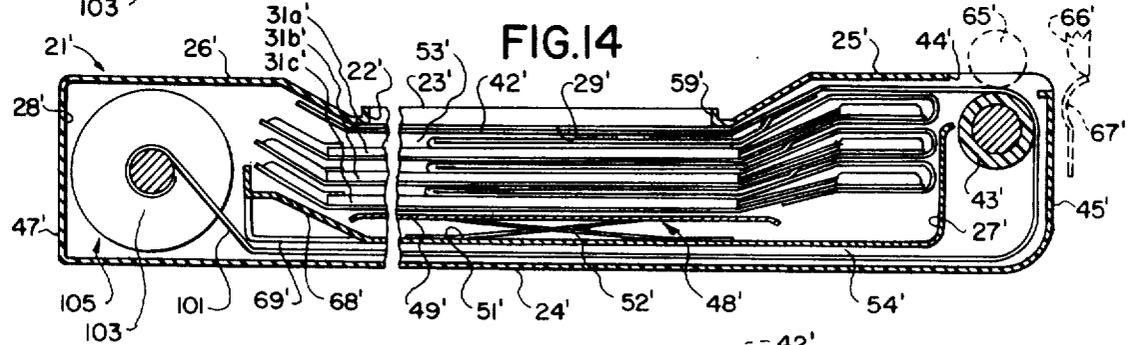


FIG. 14

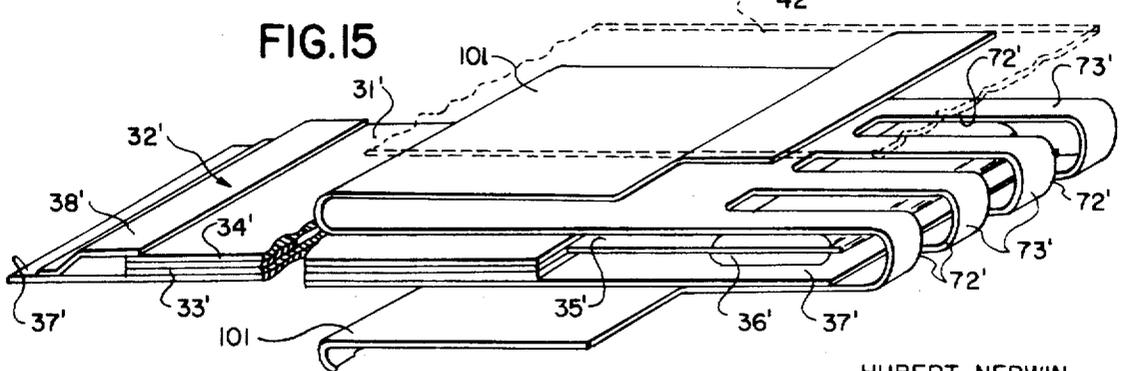


FIG. 15

HUBERT NERWIN  
INVENTOR.

BY *J. Addison Mathew*  
*Robert W. Hampton*  
ATTORNEYS

**FILM UNITS, PACK AND CAMERA**  
**CROSS-REFERENCES TO RELATED**  
**APPLICATIONS**

Reference is made to commonly assigned copending U.S. Pat. application Ser. No. 33,677, entitled PHOTOGRAPHIC APPARATUS, filed May 1, 1970 in the name of D. M. Harvey.

**BACKGROUND OF THE INVENTION**

**1. Field of the Invention**

The present invention relates to "self-processing" film units and to film packs and cameras for use therewith. More particularly, the invention is directed to film arrangements and cameras wherein successive image-recording units can be removed from the camera for processing and/or viewing, while processing waste material is retained in a storage compartment disposable after exhaustion of the film pack.

**2. Description of the Prior Art**

In photographic products with which the present invention is concerned, a camera ordinarily is loaded with a film assemblage or pack including a plurality of self-processing film units each having photosensitive and second elements. The photosensitive elements are arranged for sequential photographic exposure, and each can be processed by pulling a corresponding leader to withdraw that film unit between opposed pressure members in the camera. Processing fluid contained in a "pod" associated with each film unit is distributed over the photosensitive element by the pressure members and permeates the element to effect processing, while any excess of the processing fluid is directed to a "trap" for collecting such excess at an end of the film unit opposite from the pod. The pod, trap, leader and other processing waste materials then are separated from the film unit and discarded, leaving a finished print.

In most presently commercial film units, the photographic exposure effects the formation of a developable latent image in the photosensitive element, and that element then is superposed with the second element for processing. The second element aids in the distribution of the processing fluid and includes a layer of material for receiving a final image (or print), formed during processing by diffusion of materials from the latent, or then developed, image in the photosensitive element to the second element. After processing, the second element is stripped from the photosensitive element to provide the finished photograph, and the photosensitive element is discarded as part of the processing waste material.

Alternatively, in film units of the type disclosed with illustrative embodiments described below, the second element remains permanently attached to the photosensitive element to provide the finished photograph. However, even in this type of film unit, considerable waste material still is generated each time a photograph is processed. Additionally, and for reasons set forth more fully in commonly assigned copending U.S. Pat. application Ser. No. 33,677, filed on May 1, 1970 in the name of D. M. Harvey, separation of the waste material from the finished print is even more difficult.

In either type of film unit, the waste material includes both "dry" waste in the form of various paper strips

and leaders, and also "wet" waste such as the ruptured pod, the trap and the photosensitive element itself where that element is intended to be stripped from the finished print. Since the chemicals involved in processing often will stain or otherwise damage sensitive environments, such as clothing and skin, and may be toxic, particularly in the case of color film, it is desirable that the waste material be disposable in a safe manner without substantial inconvenience to the photographer.

Certain previously proposed film assemblages and cameras have been provided with means for eliminating the abovedescribed problem of waste disposal, including spools or the like adapted to be driven manually or electrically to wind up all of the waste material within an internal storage compartment. However, such arrangements are not only quite complicated and expensive, but also dictate a considerable increase in the size of the camera. This is particularly objectionable in the case of self-processing cameras that already are inherently larger than conventional cameras because of the relatively large film format that is necessary to provide finished photographs in conventional print sizes. Additionally, many of such previously proposed means relate to film supplied in roll form and are not readily adaptable to the more convenient pack forms of film supply.

**SUMMARY OF THE INVENTION**

An object of the present invention is to improve the safety and convenience of self-processing film units, film assemblages and cameras, by providing for the convenient disposal of wet processing waste materials.

A further object of the present invention is to provide a film unit and film assemblage for use in a camera adapted for collecting and storing all processing waste materials, wet and dry, in a particularly compact manner.

Another object of the invention is to provide self-processing film units and film assemblages usable with cameras of convenient size and configuration that also can collect processing waste materials.

A still further object of the present invention is to provide photographic products adapted for the handling of dry processing waste materials separately from wet processing waste materials.

Film units constructed in accordance with the preferred embodiment of the present invention may be supplied in a film pack usable in processing photographic apparatus and provided with a storage compartment particularly adapted to accommodate wet waste material remaining after the film units are processed. The film units are provided with leaders accessible from the exterior of the apparatus for sequentially transporting the film units from the pack and between pressure-applying members in the apparatus to effect distribution of the processing fluid. The film units each include an image-recording unit, preferably comprising integral photosensitive and second elements, a pod for containing processing fluid, a trap for collecting any excess of the processing fluid, and a carrier sheet for supporting the image-recording unit, pod and trap. The leaders, carrier sheets, image-recording units, pods and traps all are interconnected by appropriate permanent and strippable connections such

that the image-recording units are separable from the other elements to define the finished prints, and the leaders, comprising dry waste material after processing, are separable from the carrier sheets, pods and traps, comprising wet waste material after processing. By advancing one of the leaders in the apparatus, the image-recording unit first is transported between the pressure members and is separated from the other elements and expelled from the camera. The carrier sheet then is transported into a storage compartment in the pack and is separated from the one leader, and the leader of the next successive film unit is moved to a position where it is accessible from the exterior of the apparatus. All of the wet waste material remains permanently in the storage compartment and is disposable after exhaustion of the pack. Accordingly, the only waste elements handled by the photographer are the dry leader strips, which he can store in his pocket or throw away without any danger of causing harm to his clothing or person.

In film units constructed in accordance with an alternative embodiment of the invention, the dry processing waste material or leaders also may be collected in the pack or apparatus for disposal after exhaustion of the pack.

Various means for practicing the invention and other advantages and novel features thereof will be apparent from the following detailed description of the preferred embodiment of the invention, reference being made to the accompanying drawings in which like reference characters denote like elements.

#### BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. 1 is a somewhat schematic, partially cross-sectioned view of a self-processing film pack and camera adapted for use with film units constructed in accordance with the preferred embodiment of the present invention.

FIG. 2 is a perspective view of the film pack shown in FIG. 1.

FIG. 3 is a schematic, cross-sectional view of a fully loaded film pack corresponding generally to the one shown in FIGS. 1 and 2 but greatly exaggerated in thickness for explanatory purposes.

FIG. 4 is an enlarged, fragmented, side-elevation view of a film unit in accordance with the present invention and represents one of the film units depicted in the camera and pack of FIGS. 1 - 3.

FIGS. 5 - 8 correspond to FIG. 3 and illustrate progressive stages in the removal of a protective masking strip and in the processing of the first available film unit.

FIG. 9 is a perspective view of a stripping rake employed in the pack for defining the wet waste storage compartment and effecting separation of the leaders from the corresponding carrier sheets.

FIGS. 10 and 11 are fragmentary perspective views of a portion of a film unit, with its leader and carrier sheet, illustrating the operation of the stripping rake in the manner depicted in FIG. 7.

FIG. 12 is a perspective view of the film unit depicted in FIG. 4.

FIGS. 13, 14 and 15 are views corresponding to FIGS. 1, 3 and 12, respectively, but illustrating film unit

constructed in accordance with an alternative embodiment of the present invention and a film pack and camera adapted for use therewith.

#### DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, and particularly to FIGS. 1 - 4, the preferred embodiment of the present invention is illustrated in connection with a compact camera, film pack, and assemblage of self-processing film units, all adapted for photographically exposing and processing an image-recording portion on each of the film units. The film unit itself comprises essentially three respective parts, each having properties differing substantially from those of the other parts at sometime during exposure and processing. For example, each film unit might include: 1. an image-recording portion adapted to form a finished print that is free of all materials (such as those set forth below) that might detract from its aesthetic appearance or convenient viewing; 2. processing fluid supplying and collecting mechanisms such as pods and traps that must be kept away from clothing or other sensitive environments that might be damaged by the fluid; and 3. transporting mechanisms, such as leaders that should be separable from the image-recording portions but are dry and may conveniently be disposed of in a pocket without damage to clothing.

The pack includes a container or cartridge enclosing the assemblage of film units and further is provided with mechanisms for separating the film units into their above-mentioned respective parts. Additionally, the pack is provided with a waste storage compartment for collecting and retaining the second and most troublesome of the above-mentioned parts while directing the first or image-recording and third or transporting parts through various apertures and from the camera for viewing and disposal, respectively.

The camera is adapted to cooperate with the cartridge for exposing and effecting processing of the film units and also is provided with mechanisms for expelling the image-recording and transporting parts to the camera exterior where they will be available for viewing and disposal.

Referring now more particularly to details of the film pack as illustrated in FIGS. 1 - 3, the film pack comprises a rigid generally rectangular casing or housing 21 provided with a rectangular exposure opening 22 in its central front wall member 23. In FIG. 2, the film pack is illustrated on its flat back wall member 24, which is substantially parallel to front wall member 23. The film pack casing is somewhat elongated and extends forwardly away from the back wall member at its opposite ends 25 and 26. Thus, the interior of the casing provides two end compartments 27 and 28 which are substantially larger in a forward-to-rearward direction than the central compartment 29 directly in front of wall member 24.

The illustrative film assemblage housed within casing 21 comprises three substantially identical film units 31a, 31b and 31c, but it will be understood that a greater number of such film units would normally be provided and that they would be contained more compactly in a forward-to-rearward direction than depicted in the drawings. The three film units are substantially

identical and are shown with their respective components identified by the same reference numerals followed by the *a*, *b* or *c* to designate the corresponding film unit 31*a*, 31*b* or 31*c*.

As best illustrated in FIGS. 4 and 12, each film unit includes a unitary laminated film member or image-recording unit 32 comprising a photosensitive element 33 permanently joined along its lateral edges to a transparent second element 34, often referred to as a process or cover sheet, and through which the photosensitive element is adapted to be exposed. A funnel member 35, comprising two pieces of web material joined along their lateral edges, is connected at its trailing end to the leading end of the film member with the channel defined between the two layers of the funnel member in communication with the interface between the two sheets of the film member. Each funnel member, in turn, is connected at its leading end to a corresponding pod 36, which is attached to a carrier strip 37 and filled with processing fluid. At its trailing end, each film member is provided with a trap member 38, which temporarily holds that end of the film member to its carrier strip and which serves to collect excess processing fluid during the film development process. These elements of the film units are disclosed more completely, for example, in commonly assigned copending U.S. Pat. application Ser. No. 33,677, entitled PHOTOGRAPHIC APPARATUS, filed in the name of D. M. Harvey on May 1, 1970.

Each film unit includes an elongate leader member 39, which is separably attached near its trailing end to the leading end of the corresponding carrier strip. As described in greater detail below, the attachment of the leaders to the respective carrier strips is preferably accomplished by means of a plurality of small and discrete regions of adhesive material 41, which are illustrated in FIG. 10.

When the film pack is initially assembled, the various elements of the film units are folded as shown in FIGS. 1 and 3 to provide a film assemblage in which the film members are in superimposed alignment with each other behind the exposure opening in the housing, which is temporarily covered by the trailing portion of an elongate opaque masking strip 42. The leading ends of the respective leader members 39*b* and 39*c* are separably connected to the trailing ends of leader members 39*a* and 39*b*, and the leading end of leader member 39*a* is similarly connected to the opaque masking strip 42. Accordingly, the three film units are connected to each other and to the masking strip in tandem fashion by the leader members, which are folded so that they lie forwardly of their respective film members. Beyond the ends of the film units provided with the processing pods, a transverse roller 43 is rotatably supported in housing compartment 27 in alignment with a forwardly facing housing opening 44 adjacent to the housing end wall 45. Although the roller obviously can be made of other materials, a piece of ordinary glass tubing cut off square at its ends serves that purpose very admirably because of its low cost and its high degree of uniformity and surface smoothness. The masking strip partially encircles the roller and is thereby directed along the back wall 24 of housing 21, from which its leading end emerges through a slot 46 in end wall 47.

A pressure plate assembly 48, located within housing 21 rearwardly of the film assemblage, comprises a pressure plate 49 connected to a separator plate 51 by a plurality of leaf springs 52. The leaf springs resiliently urge the two plates apart, whereby the pressure plate is biased toward the front wall member 23 of the housing and the separator plate is biased toward the back wall 24 of the housing. The pressure plate assembly therefore divides the interior of the housing into a front chamber 53 which initially houses the film units and the leaders and a rear chamber 54 which is initially occupied only by a portion of the masking strip. Since the two plates comprising the pressure plate assembly can move relative to each other and to the housing, it will be apparent that the forward-to-rearward dimension of each chamber can change to allow waste material to be separated from successive film members in the front chamber and moved into the rear chamber, as described in detail below.

To load the film pack into the camera 55 shown in FIG. 1, the hinged camera cover door 56 is opened and the film pack is installed in chamber 57 in the camera body member 58. The rectangular lip 59 surrounding exposure opening 22 in the housing is received in a mating groove 61 in body member 58 to position the film pack and to provide light-tight cooperation between the front wall member 23 and the camera bellows 62. The end of the masking strip 42 protruding from the film pack housing is then fed through slot 63 in the hinged end of the cover door and the latter is closed and latched by an appropriate latch member, not shown. In its illustrated closed position, the cover door engages the back wall of the film pack housing and seats the latter against the camera body member, thereby positioning the inner surface of front wall member 23 such that the photosensitive emulsion of a film member pressed against that wall surface will be in coincidence with a focal plane of the extended camera lens supported in lens housing 64. When the film pack is thus positioned within the camera, a roller 65 carried by the body member is received in housing opening 44 in parallel adjacent relation to film pack roller 43. The two rollers therefore cooperate to provide a roller nip aligned with a transverse opening 66 at the corresponding end of the camera housing.

After the camera has been loaded, the photographer grasps the end of the masking strip protruding from the camera through slot 63 and pulls it away from the camera, which requires relatively little effort because of the friction reducing effect of roller 43. Accordingly, the masking strip is withdrawn from the exposure opening as the leading end of leader member 39*a* is pulled along with the masking strip between the two rollers and through the rear housing chamber behind separator plate 51 so that it emerges through housing slot 46 and camera slot 63.

Because of the initial folded condition of leader member 39*a*, its leading end can be drawn through slot 63 before the leader member is drawn taut as shown in FIG. 5. When the slack in the leader member has thus been absorbed, further withdrawal of the leader is resisted by the frictional clamping of film unit 31*a* between wall member 23 and film unit 31*b*, which is biased forwardly by the pressure plate assembly. As is well known in the film pack art, the trailing ends of the

film units can also be anchored by a staple so that each film unit is held in place until it is subjected to a withdrawing force sufficient to rupture its engagement with the staple. The connection between the masking strip and the leading end of leader 39a is made only strong enough to insure that the leading end of the latter will be withdrawn from the camera but not strong enough to effect movement of film unit 31a. This is accomplished by proper selection of the area and nature of the adhesive bond connecting the leader to the masking strip and is facilitated by the fact that the tip of the leader is folded back on itself after it emerges from the camera, thereby providing a reverse bend connection which is separated by a progressive peeling force rather than simply by a straight shearing force. After the joint between the masking strip and leader 31a has separated, the photographer continues to pull on the masking strip until it is removed entirely from the camera. With the masking strip removed, the forwardly facing marginal surface areas of the transparent process sheet of film unit 31a are resiliently engaged with the corresponding inner surface areas of housing wall member 23, thus locating the emulsion surface of that film unit in a flat plane coincident with a focal plane of the camera lens system.

After film unit 31a has been exposed, the accessible end of leader 39a is grasped and pulled with sufficient force to move film member 32a, thus causing the leading end of carrier strip 37a to pass between rollers 43 and 65 and to be directed toward the rear housing chamber. The continuation of this movement draws the processing fluid pod of film unit 31a to pass between the rollers, which rupture the pod and squeeze the fluid through the corresponding funnel member so that it enters between the exposed photosensitive sheet and the process sheet. After passing through the rollers, the pod and its funnel member remain attached to the carrier sheet and are therefore likewise moved toward the rear chamber housing. When the leading end of the film member passes between the two rollers, however, its inherent stiffness or resiliency causes it to separate from the funnel member as the latter is carried around roller 43. Accordingly, as shown in FIG. 6, the leading end of the film member continues to travel in a generally straight path through camera opening 66 as the continuing movement of the carrier strip effects corresponding movement of the film member because of mutual frictional contact and the pushing influence of trap member 38a on the trailing end of the film member. When the film member has moved beyond the rollers, the processing fluid has thereby been distributed evenly over the emulsion surface and the excess fluid has been squeezed out of the film member and into the trap carried by the carrier strip. As shown in FIG. 7, the trap remains attached to the carrier strip and is pulled free of the processed film member, which is gripped by a leaf spring 67 adapted to hold its trailing edge in camera opening 66 until the photographer can conveniently remove it.

By reference to FIGS. 9 and 11, it will be seen that the end of separator plate 51 adjacent to housing slot 46 is provided with four raised guide webs 68 straddling three similarly formed separator straps 69 which extend below the guide webs along the plane of the flat wall portion 71 of the separator plate. As shown in

FIGS. 10 and 11, the trailing end of each of the leader members is provided with three elongate slots 72 which correspond in spacing to the separator straps but which are somewhat wider than those straps. The leading end portion of each carrier strip adjacent to the processing fluid pod thereof is connected to the trailing end of the corresponding leader member by a plurality of spots of adhesive 41 spaced longitudinally along the two central leader member webs 73 separating slots 72. Accordingly, the leading ends of the carrier strips partially overlapping the slotted ends of the leaders span the corresponding portions of the leader slots. The masking strip, the carrier strips and the remaining portions of the leader members are substantially the same width as the film members and are devoid of any slots or openings analogous to slots 72. Therefore, as the masking strip and all but the trailing end of leader 39a are pulled past the separator straps of plate 51, they are engaged and guided by these straps as shown in FIGS. 3 and 5. However, when the movement of leader member 39a has completely separated the carrier strip from film member 32a and has moved the carrier strip almost entirely into the rear housing chamber, as shown in FIG. 7, the slots 72 in that leader arrive at the separator straps of the separator plate. When this occurs, the tendency of the taut leader member to assume the shortest path to housing slot 46 causes it to move along an angular path between the separator straps 69 of the separator plate, as shown in FIG. 7. Because the leading end of the corresponding carrier strip is devoid of slots or the equivalent, it cannot follow the angular path of the trailing end of the leader but must remain behind the separator straps. Therefore, the joint between the leader and the carrier strip is progressively separated, leaving the carrier strip and the wet waste material comprising the pod, the funnel and the trap in the rear storage chamber as the dry leader member continues to be withdrawn. The use of a plurality of longitudinally spaced areas or spots of adhesive material to join the leading end of the carrier strip to the two leader webs 73 facilitates progressive separation of those elements by minimizing the area of adhesion that is ruptured at any particular instant during the separation process. Alternatively, the adhesive material can be applied in other patterns, e.g., in thin longitudinal lines, the important consideration being to distribute the bonding area along the slotted portion of the leader so that will separate progressively under moderate force.

Leader member 39b of film unit 31b is connected to the trailing end of leader member 39a in the same member by which the leading end of the latter is initially connected to the masking strip. The withdrawal of leader 39a therefore unfolds leader 39b into the rear housing chamber, as shown in FIG. 7. After leader 39a has separated from the carrier strip, that strip remains in the storage compartment as the removal of leader 39a pulls the end of leader 39b through housing slot 46 and camera slot 63. Thereupon, the available slack in leader 39b is completely absorbed and that leader is drawn taut, causing its leading end to separate from the trailing end of leader 39a as illustrated in FIG. 8.

The leading end of leader 39c of film unit 31c is connected to the trailing end of leader 39b in the same manner described above and if additional film units were loaded into the housing each of them would be

connected to the preceding one in the same way. Accordingly, the withdrawal of each leader from the camera causes the corresponding film unit to be processed and ejected, deposits the wet waste material from that unit in the storage chamber of the disposable film pack housing, and moves the leader of the next available film unit to an accessible position so that the same process can be repeated with respect to each successive film unit.

#### DETAILED DESCRIPTION OF AN ALTERNATIVE EMBODIMENT

In an alternative embodiment of the present invention is illustrated in FIGS. 13 - 15 wherein parts that are the same as those in the preferred embodiment are designated by the same reference numerals primed. In this embodiment, the dry processing waste material also is adapted to be collected in the pack. However, in order to provide a more compact pack, the dry material, comprising a single, elongate leader 101, is wound by appropriate means, such as lever 102, onto a spool 103 in a third chamber 105 separate from both the wet waste material in second chamber 54' and the unexposed units in first chamber 53'. Separate collection of the wet waste material is important to compactness because the fluid containers or pods ordinarily include layers of metal foil, and the collectors or traps ordinarily include stiff lifters, that are difficult to wind into a compact roll, but easily can be collected in a separate laid-out or flat condition. The dry waste, on the other hand, is flexible and easily can be wound onto a spool, or the like, to provide a compact waste roll that does not substantially increase pack or camera size, and conveniently can be located opposite from the pressure members 43 and 65. Further features of this alternative embodiment are the same or similar to those described above in connection with the preferred embodiment.

The invention has been described in detail with particular reference to the illustrated preferred and alternative embodiments thereof, but it will be understood that variations and modifications can be effected within the spirit and scope of the invention.

I claim:

1. A film unit adapted for an exposure in photographic apparatus to record a latent image processable by a processing composition, the apparatus having a member cooperable with said film unit after the exposure, said film unit comprising:

an image-recording unit including a photosensitive element for recording the latent image and a second element permanently secured to said photosensitive element for facilitating distribution of the processing composition over said photosensitive element to effect processing of the latent image:

a container releasably coupled to said image-recording unit for supplying the processing composition to said image-recording unit between said photosensitive and second elements:

a carrier securely attached to said container and strippably coupled to said image-recording unit to permit separation of said image-recording unit from said carrier and said container; and

a leader strippably coupled to said carrier to permit separation of said leader from said carrier and said container.

2. A film unit as claimed in claim 1 wherein said image-recording unit defines a plane and is strippable from said carrier in response to movement of said carrier in a direction divergent to said plane.

3. A film unit as claimed in claim 1 wherein said leader is strippably coupled to said carrier at a predetermined area, wherein one of said leader and said carrier includes means defining an aperture in said area for receiving the cooperable member of the apparatus, wherein the other of said leader and said carrier includes an imperforate portion overlying said aperture, and wherein stripping of said leader from said carrier is facilitated by the cooperable member extending through said aperture to said imperforate portion.

4. A film unit as claimed in claim 1 wherein said image-recording unit has an underside, wherein said carrier extends along all of said underside, and further comprising means releasably coupled to said image-recording unit for collecting any excess of the processing composition from between said photosensitive and second elements, said collecting means being securely attached to said carrier for separation with said carrier and said container from said image-recording unit and said leader.

5. A film unit as claimed in claim 4 wherein said carrier is disposed between said leader and said image-recording unit, said container, and said collecting means, as long as said carrier, leader, and image-recording unit remain coupled during processing to prevent wetting of said leader by the processing composition.

6. A film unit for recording and processing a latent image, said film unit comprising:

an elongate first web member including a trailing end portion having an elongate longitudinal opening therein;

a second web member including a leading end portion separably coupled in overlapping relationship to said trailing end portion and at least partially covering said longitudinal opening; and

an image-recording unit separably coupled in overlapping relationship to said second web member and including a photosensitive element for recording the latent image and a process element permanently secured in superposed relationship to said photosensitive element to facilitate processing of the latent image.

7. A film unit as claimed in claim 6 wherein said leading end portion is separably coupled to said trailing end portion by a plurality of relatively small spots of adhesive material disposed in longitudinally spaced relation to said trailing end portion along opposite sides of said longitudinal opening.

8. A photographic film unit assemblage comprising:

a plurality of film units arranged in stacked relation for sequential exposure, each of said film units including an image-recording unit having a photosensitive element for recording a processable latent image and a process element permanently coupled in superposed relationship to said photosensitive element, a container removably coupled to said image-recording unit and having therein a composition for processing the latent image, and a leader removably coupled to said container and said image-recording unit for transporting said container and said image-recording

**11**

unit within and from said assemblage, said leader including a leading end portion and a trailing end portion, said leader being removably coupled to said container and said image-recording unit at said trailing end portion; and  
5 means for removably coupling one of said film units

**12**

to another of said film units, said coupling means including means for removably adhering the trailing end portion of the leader of said one film unit to the leading end portion of the leader of said other film unit.

\* \* \* \* \*

10

15

20

25

30

35

40

45

50

55

60

65