April 11, 1961 W. H. EBURN, JR 2,978,971

PHOTOGRAPHIC PRODUCT

Filed Feb. 18, 1960 4 Sheets-Sheet 1

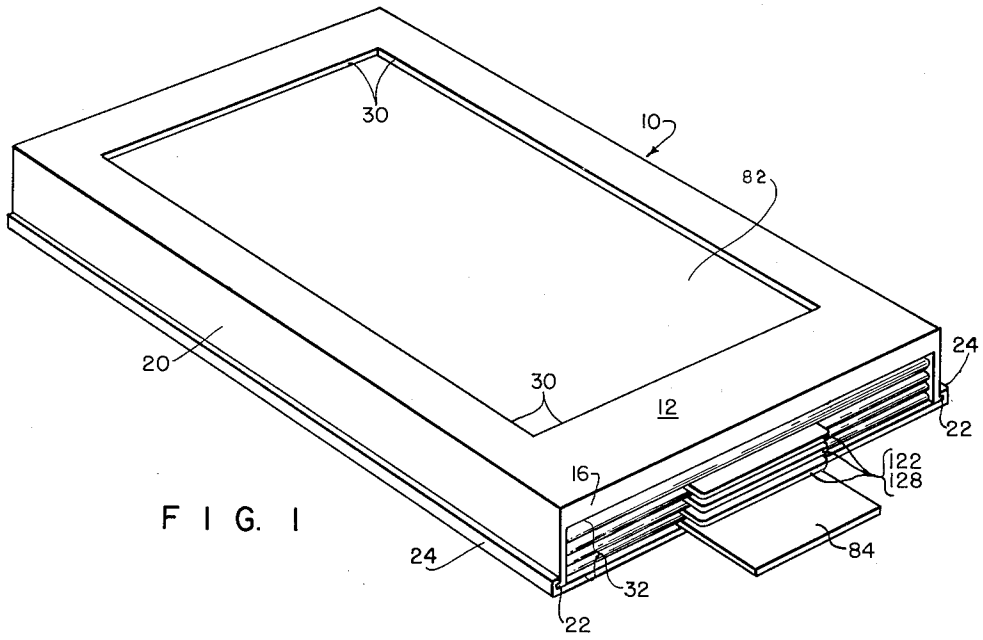


FIG. 1

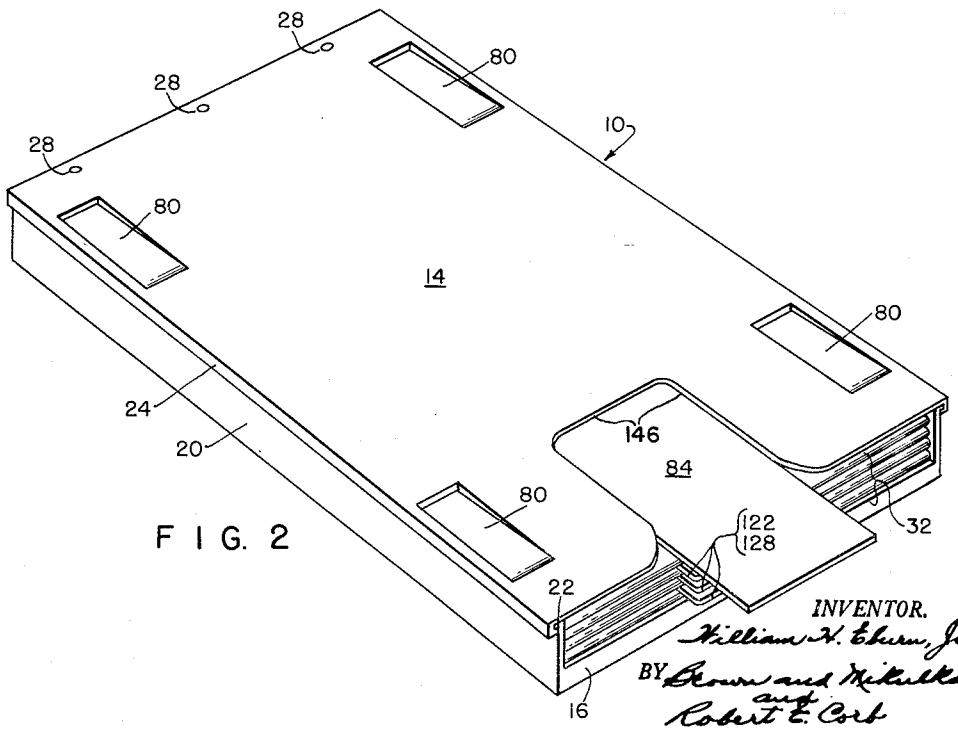


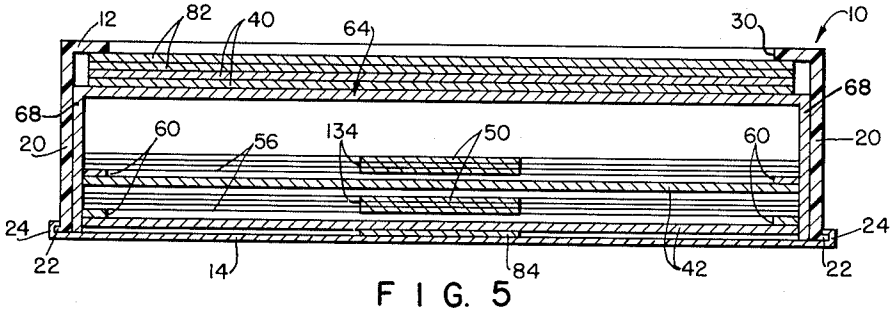
FIG. 2

INVENTOR.
William H. Eburn, Jr.
BY Brown and Mikulka
and
Robert E. Cobb
ATTORNEYS

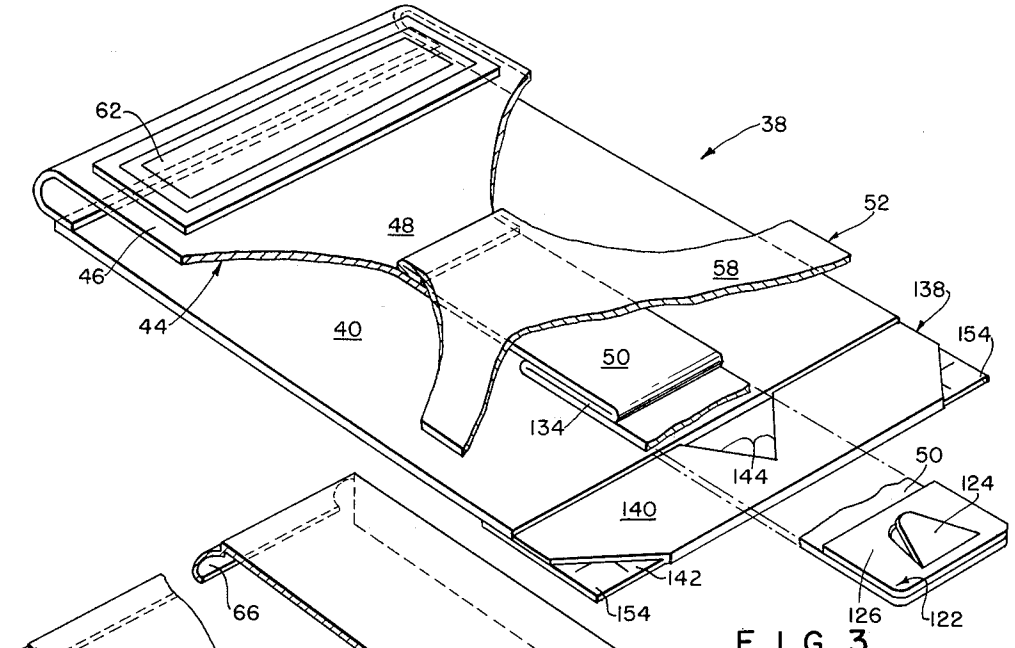
April 11, 1961 W. H. EBURN, JR 2,978,971

PHOTOGRAPHIC PRODUCT

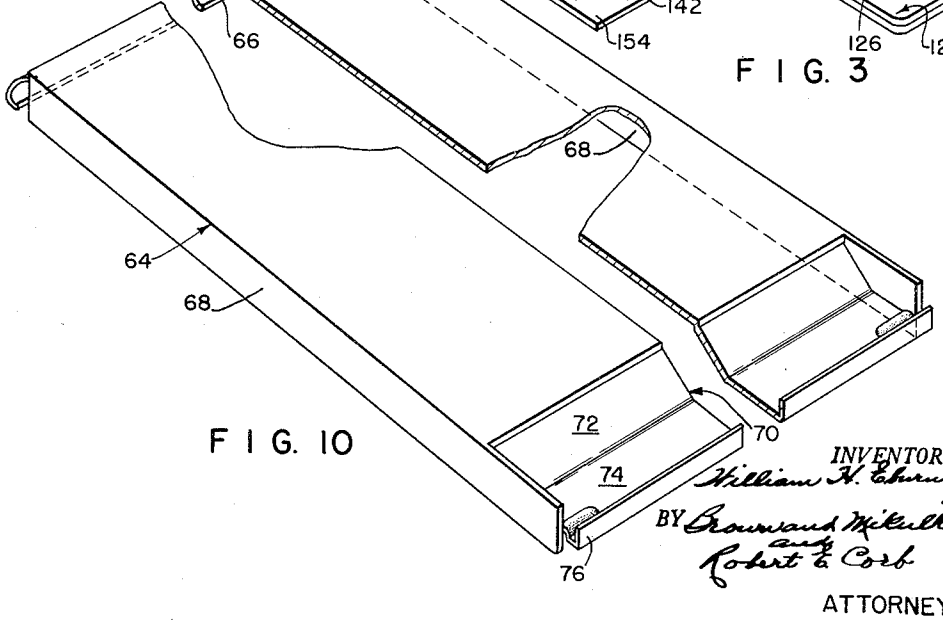
Filed Feb. 18, 1960 4 Sheets-Sheet 2



F I G. 5



F I G. 3



F I G. 10

INVENTOR.
William H. Eburn, Jr.
BY Brownand Mikulka
and
Robert L. Cobb
ATTORNEYS

April 11, 1961 W. H. EBURN, JR 2,978,971

PHOTOGRAPHIC PRODUCT

Filed Feb. 18, 1960 4 Sheets-Sheet 3

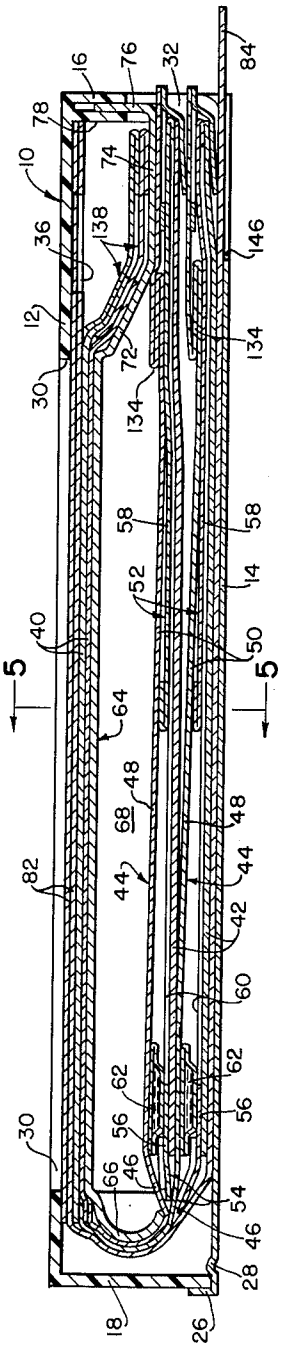


FIG. 4

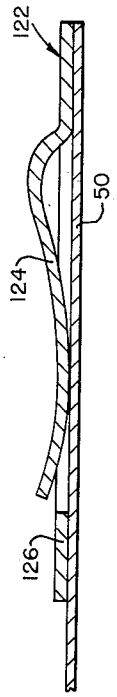


FIG. 7

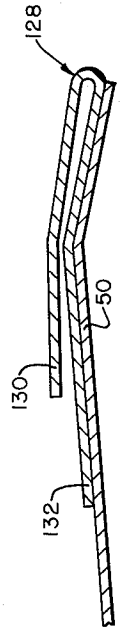


FIG. 9

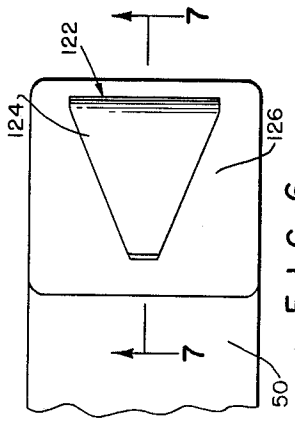


FIG. 6

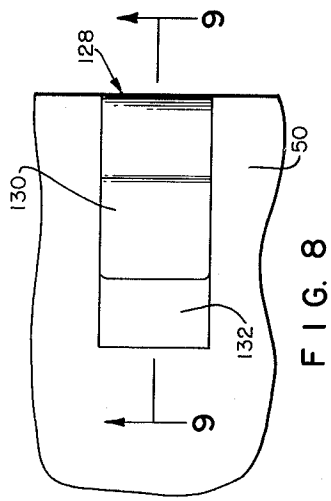


FIG. 8

INVENTOR.
William H. Eburn, Jr.
BY Brown and Mikulka
and
Robert E. Cobb
ATTORNEYS

April 11, 1961 W. H. EBURN, JR 2,978,971

PHOTOGRAPHIC PRODUCT

Filed Feb. 18, 1960 4 Sheets-Sheet 4

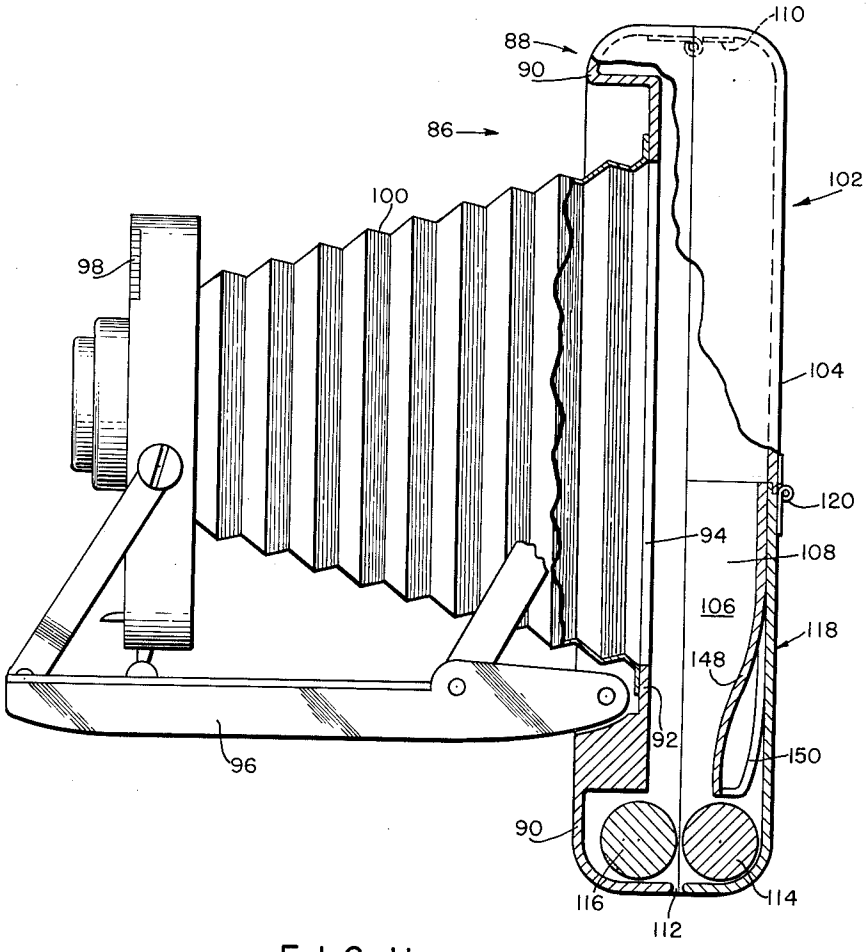


FIG. 11

INVENTOR.
William H. Eburn, Jr.
BY Brown and Mikulka
and
Robert E. Cord
ATTORNEYS

United States Patent Office 2,978,971
Patented Apr. 11, 1961

2,978,971

PHOTOGRAPHIC PRODUCT

William H. Eburn, Jr., East Weymouth, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

Filed Feb. 18, 1960, Ser. No. 9,476

32 Claims. (Cl. 95—13)

This invention relates to novel potographic products includlng photosensitive materials, and particularly to photographic products including photosensitive elements adapted to be exposed and thereafter processed by fluid compositions which said products comprise.

The present invention is concerned with a photographic products in the form of a film pack or film magazine of the type shown in the copending U.S. patent application of Vaito K. Eloranta, Serial No. 749,024, filed July 16, 1958, and comprising a container, at least one film unit mounted for exposure within the container and a closure element for preventing the admission of light into the container. Each film unit includes a photosensitive element positioned for exposure within the container, a second element adapted to be superposed with the photosensitive element during withdrawal of the film unit from the container following exposure thereof and means for carrying a fluid processing agent for distribution between the superposed photosensitive and second elements during withdrawal of the film unit, preferably for forming a positive transfer print from the photosensitive element on the second element. The container includes an exposure aperture for transmitting light for exposing the photosensitive element, the closure element being located across the exposure aperture; and an opening permitting withdrawal of both the closure element and the film unit from the container through the opening. The closure element of each film unit includes a leader adapted to project from the container through the opening thereby providing means for withdrawing the closure element and a film unit from the container in engagement with means for distributing a processing fluid, comprising each film unit, between the photosensitive and second elements thereof.

Film packs of this type are intended to be employed in photographic apparatus such as a camera including means for holding a film pack in position for exposure, means for exposing the photosensitive elements of a film unit of the pack, and means for engaging a film unit during withdrawal from the pack and distributing the processing fluid between the photosensitive and second elements of the film unit for effecting the treatment of the photosensitive element. Processing of each film unit is effected by manually grasping a leader attached to the film unit and withdrawing the leader and film unit from both the pack and the camera. Since an arrangement wherein several leaders extend from the camera is obviously undesirable, cameras of this type heretofore have been provided with means for feeding one leader at a time from the camera so that the leader can be grasped for withdrawing a film unit which the leader comprises from the pack and camera in engagement with fluid distributing means.

Objects of the invention are: to provide a film pack of the type described comprising a container, a film unit, at least another element enclosed within the container and adapted to be withdrawn therefrom, and novel and improved means for feeding a leader comprising said film unit from said container and from said apparatus holding said film pack to allow said leader to be engaged exteriorly of said film pack in response to withdrawl of said other element from said container and said apparatus; and to provide a leader withdrawal means which is reliable in its operation yet simple and inexpensive in its construction and which occupies substantially little space within the container.

The fluid spreading device of the camera generally comprises a pair of juxtaposed pressure-applying members biased toward one another and a film unit is drawn between the pressure-applying members for distributing the processing fluid within the film unit.

Other objects of the invention are: to provide a film pack of the type described including means responsive to movement of another element between a pair of juxtaposed pressure-applying members for engaging and drawing a leader comprising a film unit from a container between said pressure-applying members and for releasing the leader following movement thereof between the pressure-applying members; and to provide a film pack as described wherein the leader of the film unit includes an engagement member for engaging a portion of the trailing end of another element during withdrawal thereof from the container between said pressure-applying members and from said apparatus.

Further objects of the invention are: to provide, in a film pack of the type described, an engagement member which is resilient and comprises a clip engaged with another portion of a film unit for retaining said engagement member in proper position to be engaged by a portion of another element as the latter is withdrawn from the container; and to provide a film pack as described wherein said portion of said other element engaged by said engagement member comprises an opening in the trailing end of said other element and said engagement member includes a section extending in a direction opposite the direction of movement of said other element and toward and into engagement with said other element.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises the product possessing the features, properties and the relation of components which are exemplified in the following detailed disclosure, and the scope of the application of which will be indicated in the claims.

For a fuller understanding of the nature and objects of the invention, reference should be had to the following detailed description taken in connection with the accompanying drawings wherein:

Figures 1 and 2 are front and rear perspective views respectively of a photographic product in the form of a film pack embodying the invention;

Fig. 3 is a fragmentary perspective view of a film unit incorporated in the film pack of Figs. 1 and 2 and embodying the invention;

Fig. 4 is a sectional view through the film pack of Figs. 1 and 2 taken substantially midway between the sides of the pack;

Fig. 5 is a sectional view taken along the line 5—5 of Fig. 4;

Fig. 6 is a plan view of an engagement member comprising the film pack;

Fig. 7 is a sectional view taken substantially along the line 7—7 of Fig. 6;

Fig. 8 is a plan view of another engagement member of the type comprising the film pack;

Fig. 9 is a sectional view taken substantially along the line 9—9 of Fig. 8;

Fig. 10 is a fragmentary perspective view of another component of the film pack; and

Fig. 11 is an elevational view, partially in section, show-

ing photographic apparatus in the form of a camera for employing the film pack of the invention.

The preferred form of film pack embodying the invention comprises a plurality of film units, each adapted to be exposed and processed in a camera for producing a positive photographic print, enclosed in a light-proof container or magazine which allows the film units to be exposed. Each film unit comprises a photosensitive sheet adapted to be exposed for producing a photographic image, a second or print-receiving sheet for carrying a positive transfer image formed from the photosensitive sheet, a rupturable container of a fluid agent for reacting with the exposed photosensitive sheet to produce the positive transfer image on the second sheet when distributed between the two sheets, and means including a leader for coupling the two sheets and withdrawing the sheets in superposition from the container. The container includes a forward wall having an exposure aperture therein and an opening in one end through which film units can be withdrawn one at a time with the photosensitive and second elements of each film unit in superposed relation. The photosensitive sheets of the film units are positioned together within the container underlying the exposure aperture and the second sheets are arranged together apart from and behind the photosensitive elements adjacent the opening through which the film units are withdrawn so that following the exposure of the photosensitive element of each film unit, the photosensitive element is moved, by drawing on the leader of the film unit, into superposition with the second element of the film unit and the film unit is then withdrawn from the container through the opening. The film pack is initially provided with a cover element or sheet mounted within the container and extending across the exposure aperture for closing the aperture against the admission of light. The cover element also includes a leader extending from the container through the opening and being removable therethrough, and only the leader of the cover element extends from the film pack container.

The film pack is employed by being positioned in a camera, including a pair of juxtaposed pressure-applying members, with the opening located adjacent the pressure-applying members and the exposure aperture disposed approximately in the exposure plane of the camera. The leaders of the film units are disposed entirely within the container while the leader comprising the cover element extends from the pack between the pressure-applying members from the camera where the last-mentioned leader may be grasped for withdrawing the cover element from the pack and camera to allow the photosensitive sheets of the pack to be exposed. After the photosensitive sheet of each successive film unit is exposed, that film unit is then withdrawn from the container and camera between the pressure-applying members; and for this purpose, the leader of the first film unit and of successive film units must be withdrawn from the container and camera between the pressure-applying members. According to the invention, the leader of the first film unit and of each successive film unit is withdrawn from the container and camera between the pressure-applying members as the previous film unit, or the cover sheet, is withdrawn.

The means for feeding the leader of each film unit from the container and camera between the pressure-applying members must be dependable in its operation since a failure would necessitate opening of the camera to allow manual withdrawal of the leader so that the remaining film units may be exposed and processed and this might result in the waste of a film unit due to exposure thereof. Secondly, the leader-feeding means is required to be small, so that it occupies very little space within the container; it should be simple and inexpensive to fabricate so that it does not add appreciably to the cost of the pack; and it should be easy to assemble. These are the characteristics of the leader-feeding means comprising the pack of the invention.

Reference is now made to the drawings, particularly to Figs. 1 through 5 and 10 wherein there is illustrated a photographic product in the form of a film pack, or magazine, embodying the invention, together with the details of the components of the film pack including a film unit. The film pack comprises a generally parallepiped-shaped container **10** having a forward wall **12**, a rear wall **14**, end walls **16** and **18** and side walls **20**. The container may be formed of any stiff material which is opaque to light actinic to the photosensitive material carried in the container, for example cardboard, stiff paper, metal, organic plastics and the like. In the form shown, the container comprises a first or forward section including forward wall **12**, end walls **16** and **18** and side walls **20**, and a second or rear section comprising rear wall **14**. The forward section is preferably formed of an organic plastic material, as by molding practices, and includes laterally projecting flanges **22** along the rearmost edges of side walls **20**. Rear wall **14** comprising the second section of the container is preferably formed of sheet metal and includes channels **24** at its lateral edges for engaging flanges **22** on side walls **20** and a flange **26** at one end edge for engaging end wall **18** to prevent sliding movement of the rear section in the direction of its other end relative to the forward section, and to prevent admission of light into the container at the juncture of end wall **18** and rear wall **14**. Rear wall **14** is also provided with inwardly depressed portions **28** located adjacent flange **26**, which portions act as detents cooperating with the flange for preventing the movement of the rear section relative to the forward section of the container. The overall construction of the container is such that it can be readily assembled by merely sliding flanges **22** into channels **24** until depressed portions **28** pass over the rear edge of end wall **18** and the latter is retained between the depressed portions and flange **26**.

Forward wall **12** is provided with a rectangular exposure aperture **30** for transmitting light to the photosensitive materials positioned for exposure within the container underlying the forward wall. The container includes a second or withdrawal opening, designated **32**, defined by the rear edge of end wall **16** and rear wall **14**, the end wall extending only partially toward the rear wall for this purpose. Withdrawal opening **32** is adapted to permit the various components of the film pack, including film units enclosed therein, to be withdrawn from the container.

The film pack comprises at least one and preferably a plurality of film units, designated **38**, contained entirely within container **10** and adapted to be withdrawn from the container through opening **32**. Each film unit **38** comprises a first or photosensitive sheet **40** and a second or print-receiving sheet **42**. The photosensitive sheet is rectangular and comprises a layer of photosensitive material carried on a suitable support. The photosensitive material may comprise any of the materials used in photograph including, for example, the silver halides or other photosensitive heavy metal salts capable of having a developable latent image formed therein by exposure, the ferric salts and the diazonium compounds. The support for the photosensitive layer may comprise any of the flexible sheet materials generally used for film base including paper, sheet metal and foils, organic plastics and the like, and is preferably either opaque to light actinic to the photosensitive material, or it includes a layer which is opaque to actinic light. Second sheet **42** is substantially equal in width to the photosensitive sheet, is slightly longer, and comprises a flexible sheet material such as paper, organic plastic, metallic foil and the like. While the second sheet may merely aid in the spreading of a fluid processing composition in a thin layer on the photosensitive sheet, in a preferred form of the film unit the second sheet is adapted to provide a support for a positive transfer print produced, for example, by a silver halide diffusion transfer reversal process such as described in U.S. Patents Nos. 2,543,181,

issued February 27, 1951, and 2,662,822, issued December 15, 1953, both in the name of Edwin H. Land. The second sheet accordingly may comprise the print-receiving layer such as described in the above-mentioned patents carried on a flexible support sheet.

Photosensitive sheet **40** is joined at its leading edge to a first carrier sheet **44** comprising an end section, designated **46**, which is approximately equal in width to the photosensitive sheet and is joined to the photosensitive sheet, an intermediate tapered section **48** and a narrow elongated leader section **50**. Second sheet **42** is mounted on a second carrier sheet **52** comprising a trailing end section **54**, an intermediate section **56** coextensive with said second sheet, and a leading end section **58** including a tapered end portion. Print-receiving sheet **42** is mounted on intermediate section **56** with the print-receiving layer located adjacent carrier sheet **52**. Intermediate section **56** is provided with a generally rectangular aperture **60** defining the area of the print-receiving sheet against which the fluid processing composition is spread and wherein a transfer print is produced. The lateral margins of intermediate section **56** adjacent the sides of aperture **60** cooperate (in a manner described hereinafter) for confining the processing fluid between the sheets and for controlling the thickness of the layer of fluid spread between the sheets. Trailing end section **54** of second carrier sheet **52** extends beyond the trailing edge of the second sheet for collecting and retaining excess processing fluid in a manner to be described.

Carrier sheets **44** and **52** are adapted to perform several functions in addition to cooperating in spreading a processing fluid in a layer of predetermined thickness between the photosensitive and second sheets, determining the area to be processed and the dimensions of the transfer print produced, and collecting excess processing fluid; and these functions include providing means for connecting the photosensitive and second sheets, properly locating or registering the photosensitive and second sheets relative to one another when the sheets are superposed, superposing the photosensitive and second sheets, mounting a container of fluid processing composition and providing means for moving the film unit within the container and for withdrawing the film unit from the container. The leading edge of the tapered portion of leading end section **58** of the carrier sheet is attached to tapered section **48** of the first carrier sheet with the photosensitive and second sheets in register with one another, i.e., with their leading edges substantially in alignment and with the photosensitive layer and the print-receiving layer of the two sheets located innermost facing one another. In other words, the surface of second carrier sheet **52** which faces in the same direction as the print-receiving layer of second sheet **42** is secured to that surface of first carrier sheet **44** which faces in the same direction as the photosensitive layer of photosensitive sheet **40**. The tapered sections of the two carrier sheets are substantially the same width where they are joined which is in the region of the junction of tapered section **48** and leader section **50** of the first carrier sheet and substantially midway between the leading edges of the photosensitive and second sheets.

The photosensitive and second sheets are adapted to be processed by a fluid composition carrier in a rupturable container, designated **62**, mounted on end section **46** of first carrier sheet **44**. The container is formed substantially as shown in the above-mentioned U.S. Patent No. 2,543,181 and comprises a rectangular blank of fluid- and air-impervious sheet material, folded longitudinally upon itself to provide two walls bonded together at their margins to form an elongated cavity for the processing fluid. The longitudinal seal is weaker than the end seals and is adapted to become unsealed in response to hydraulic pressure generated within the fluid contents of the container by the application of compressive pressure thereto. Container **62** is mounted on end section **46** preferably by an adhesive and the container extends substantially from side to side of first carrier sheet **44** with the liquid cavity of the container preferably being at least as wide as aperture **60** in second carrier sheet **52**. Container **62** is mounted with the longitudinal edge, which is adapted to become unsealed, facing the photosensitive sheet and spaced therefrom by a distance approximately equal to the shorter dimension of the container.

The components of film unit **38** when assembled for exposure in a film pack assume the relative positions shown in Fig. 4 of the drawings. In this position the photosensitive and print-receiving sheets **40** and **42** overlie one another with the photosensitive and print-receiving layers thereof facing in the same direction and the photosensitive layer located outermost in position for exposure. The leading and trailing edges of each sheet are located adjacent respectively the trailing and leading edges of the other. First carrier sheet **44** is folded adjacent the leading edge of photosensitive sheet **40** so as to extend between the photosensitive and second sheets toward the trailing end of the photosensitive sheet and the leading end of the second sheet. Second carrier sheet **52** is folded adjacent the leading end of second sheet **42** so that it will extend toward the trailing end of the second sheet and the leading end of the photo-sensitive sheet to a point approximately midway between the ends of the photosensitive and second sheets where tapered leading end section **58** is folded and joined to tapered section **48** of first carrier sheet **44**.

The film unit, as part of a film pack, is assembled around a dividing element in the form of a pressure plate **64** mounted within container **10**. Pressure plate **64** is shown in detail in Fig. 10, is approximately equal in width to container **10** and comprises a generally flat or planar section underlying exposure aperture **30** and extending beyond the edges of the exposure aperture. The pressure plate includes a rearwardly extending rolled edge section **66** at its trailing edge, rearwardly extending flanges **68** at its lateral edges, and a leading end section **70** including a first portion **72** inclined rearwardly, an intermediate portion **74** disposed substantially in a plane parallel with the planar portion of the pressure plate and an end portion **76** extending forwardly substantially at a right angle to the intermediate portion. Pressure plate **64** is positioned within container **10** with flanges **68** disposed adjacent side walls **20** and with end portion **76** extending toward forward wall **12** adjacent end wall **16**. An inner end wall **78**, similar to end wall **16**, is provided on the inside of forward wall **12** adjacent end wall **16** and extending toward rear wall **14**. End portion **76** of the pressure plate is engaged between end wall **16** and inner end wall **78** to provide means for light-sealing the leading end of the container against the admission of light into the container between forward wall **12** and pressure plate **64**. Portions of rear wall **14** are punched out and deformed inwardly to provide springs **80** for engaging flanges **68** and urging pressure plate **64** forwardly against forward wall **12**.

Each film unit **38** of the film pack is disposed within container **10** with the photosensitive sheet **40** thereof located forward of the pressure plate between the latter and forward wall **12** of the container. End section **46** of first carrier sheet **44** extends around rolled edge section **66** of the pressure plate and second sheet **42**, tapered section **44** and leader section **50** of the first carrier sheet and the second carrier sheet **52** are all disposed behind the pressure plate between it and rear wall **14** of container **10**, the second carrier sheet and the last-mentioned portions of the first carrier sheet being disposed between second sheet **42** and the pressure plate. A plurality of film units **38** are provided in the container each arranged in the same manner with the photosensitive sheets arranged in one stack forward of the pressure plate and the second sheets arranged in another stack to the rear of the pressure plate. The photosensitive sheets extend across exposure aperture **30** in position for exposure by

light transmitted through the aperture and the second sheets are located behind the pressure plate with their leading edges adjacent withdrawal opening **32** in position to be withdrawn through the opening.

The film pack also includes light-seal means for preventing light, admitted through exposure aperture **30**, from striking photosensitive sheets **40**, and this light-seal means comprises a pair of cover sheets **82** located in superposed relation across exposure aperture **30** between forward wall **12** and the foremost photosensitive sheet **40**. Cover sheets **82** are formed of a light-opaque sheet material such as black paper, organic plastic, metallic foil and the like, and two sheets are provided, rather than one, in opposed relation to preclude any chance of exposure of the foremost photosensitive sheet due to a minute hole in a cover sheet. Leader **84** is provided connected to the leading end of the cover sheets, located at the trailing end of the film pack, and extends around rolled edge portion **66** of the pressure plate between the second sheets and rear wall **14** of the container. Leader **84** extends through withdrawal opening **32** from the container to provide means for withdrawing the cover sheets from the container to permit exposure of photosensitive sheets mounted within the container.

The film pack of the invention is adapted to be employed in photographic apparatus such as a camera of the type shown in Fig. 11 of the drawings. This camera, designated **86**, comprises a housing including a forward section **88** having a forward wall **90** with a recessed or reentrant section **92** and an aperture **94** in the reentrant section through which exposure of the photosensitive sheets within the camera is effected. A hinged door **96** is provided for covering recessed section **92** and for mounting a conventional lens and shutter assembly **98**, the latter being connected to recessed section **92** by a collapsible bellows **100** secured at one end to the lens and shutter assembly and secured at its other end to the recessed section in surrounding relation to aperture **94**. In lieu of door **96**, lens and shutter assembly **98** and bellows **100**, the camera housing could be constructed in the form of a camera back or a film pack adapter intended to be mounted on or coupled to the rear of a camera.

The camera housing includes a rear section **102** having a rear wall **104** and side walls **106** and cooperating with forward housing section **88** to provide a chamber **108** behind aperture **94** for containing the film pack of the invention in position for exposure through aperture **94**. The film pack is mounted within chamber **108** with the forward wall of the pack located against the rear surface of reentrant section **92** and with the aperture in the forward wall of the pack aligned with aperture **94**. Rear housing section **102** is preferably pivotably secured to forward housing section **88** adjacent one end of the housing, herein shown and designated for purposes of description as the upper end, by a hinge **110**, thereby permitting the separation of the two housing sections for loading of a film pack into chamber **108**. An opening **112** is provided at the lower end of the camera housing intermediate the forward and rear housing sections to permit withdrawal of a film unit from the housing. Suitable latch means (not shown) of a conventional type are also provided in the lower portion of the housing for retaining the two housing sections together in the closed or operative position shown in the drawings.

Camera **86** includes a pair of pressure-applying members in the form of pressure-applying rolls **114** mounted within chamber **108** adjacent opening **112** in the lower end of the chamber. Pressure-applying rolls **114** and **116** are mounted for pivotal movement with the axes substantially in a common plane and resilient means are provided for biasing the rolls toward one another into juxtaposition. For additional details of the construction and arrangement of typical means for mounting the pressure-applying rolls, reference may be had to the copending U.S. application of Vaito K. Eloranta, Serial No. 749,024, filed July 16, 1958. In the preferred arrangement, pressure-applying roll **114** is mounted on the rear housing section and pressure-applying roll **116** is mounted on the forward housing section so that when the two housing sections are pivoted apart to allow loading of a film pack into chamber **108**, the pressure-applying rolls are spaced apart allowing leader **84** to be positioned between the rolls so as to extend therebetween through opening **112** when the two housing sections are pivoted toward one another into operative position. Rear housing section **102** preferably includes a lower section **118** comprising the lower portion of the rear housing section and being pivotable about a hinge **120** independently of the upper portion of the rear housing section. Pressure-applying roll **114** is mounted on lower section **118** and this arrangement allows the lower portion of the housing to be opened and the pressure-applying rolls spaced apart without opening the entire rear of the camera housing. Suitable latch means are, of course, provided for releasably holding lower rear housing section **118** in the closed or operative position shown.

Each film unit **38** includes engagement means for engaging the previous film unit, or in the case of the first film unit, for engaging one of the cover sheets for withdrawing the leader section **50** of the film unit from the container through opening **32** and from the camera between pressure-applying rolls **114** and **116** through opening **112** as the previous film unit or the cover sheet is being withdrawn from the container and camera. Engagement means for this purpose are shown in detail in Figs. 6 through 9 of the drawings and take the general form of clips each having a base section attached to the end portion of a leader section **50** and an engagement section for engaging a portion of the previous film unit or cover sheet. The two sections of the engagement member or clip cooperate for holding therebetween another sheet and thereby properly positioning the engagement means and holding it in said position. The engagement means is required to be simple in its construction yet reliable in its operation, to be small and compact so as to occupy very little space within the container and to be movable between the pressure-applying rolls from the camera.

This engagement means may take the form of a member designated **122** in Figs. 6 and 7 of the drawings and comprising a generally rectangular blank of a thin, resilient sheet material such as metal or organic plastic. A generally triangular engagement section **124** is formed from the otherwise flat blank comprising the engaging member by cutting or piercing the blank to form two sides of the triangular engagement section and bending the blank along the third side, or base, of the triangular section. The remaining portion of the blank surrounding the triangular engagement section **124** comprises the base section **126** of the engagement member and is secured to a leader section **50** with the base of the triangular engagement section **124** located closest the end of leader section **50** and the apex of triangular engagement section **124** extending toward the opposite or trailing end of the film unit. Triangular engagement section **124** is curved sharply away from base section **126** and leader sheet **50** and then re-curves toward and then away from the leader section so that the intermediate portion of triangular engagement section **124** is closer to leader section **50** than are the base and apex (or free end) of the engagement section. In fact, the intermediate portion of engagement section **124** may be biased toward and into engagement with leader section **50** so that it cooperates with the base section to act as a clip for releasably engaging a sheet or the like disposed between the base and engagement sections.

Another form of engagement member, designated **128**, is shown in Figs. 8 and 9 and comprises a generally rectangular blank folded or bent sharply upon itself intermediate its ends to provide an engagement section **130** and a longer base section **132** both extending in sub-

stantially the same direction closely adjacent one another. Engagement section **130** and the base section **132** are bent slightly in the same direction away from the engagement section at a location substantially midway between the ends of the shorter engagement section so that the free end of engagement section **130** has a tendency to diverge from the adjacent portion of base section **132**. Engagement member **128** is secured to a leader section **50** at the base section with the folded portion of the engagement member located adjacent the leading end of the leader section. Engagement member **128** is adapted to function as a clip for engaging a sheet or the like which is thin and substantially flat and is deformed slightly, as is the engagement member, by insertion between the sections of the engagement member.

The engagement members are formed of a very thin sheet material having a thickness, for example, on the order of a few thousandths of an inch so that the engagement members may be drawn between the pressure-applying rolls with very little effort. The strength or rigidity of the engagement members, and particularly the engagement sections thereof, may be increased by embossing the engagement members to form ribs thereon.

Each leader section **50** of the film units is provided with a Z-fold **134** intermediate the engagement member attached thereto and the tapered section **48** of the first carrier sheet which the leader section comprises. The purpose of the Z-fold is to allow the end of the leader section to be withdrawn from the container between the pressure-applying rolls and from the camera without moving the photosensitive sheet which is attached to the carrier sheet which the leader section comprises. Each engagement member (**122** or **128**) is clipped over the leading end of the second sheet of the film unit which it comprises within the container adjacent withdrawal opening **32**, with the engagement section (**124** or **130**) of the engagement member disposed toward the rear of the second sheet and the base section (**126** or **132**) located forward of the second sheet. The film units are arranged so that the rearmost second sheet is withdrawn first and the positioning of the leading end of the second sheet between the engagement and base sections of the engagement member causes the free end of the engagement section to extend rearwardly into engagement with the photosensitive sheet of the previous film unit as the latter is withdrawn from the container.

The portion of the previous film unit or the cover sheet which is engaged by the engagement member borders on an opening in the film unit or cover sheet. Accordingly, the trailing end portion of the rearmost cover sheet **82** is provided with a generally triangular opening **136** having an apex extending toward the trailing edge of the cover sheet. The engagement section (**124** or **130**) of the engagement member (**122** or **128**) of the first film unit is adapted to project into engagement opening **136** as the trailing end portion of the cover sheet is withdrawn from the container past the engagement member. The engagement opening **136** is triangular because this particular shape does not weaken or detract from the strength of the sheet, i.e., the resistance of the sheet to tearing, because this particular shape inhibits rolling of the portion of the sheet being engaged, and because this particular shape gives greater assurance of engagement between the engagement member and the sheet.

The portion of each film unit which is engaged by the engagement member comprises a portion at the trailing end of the photosensitive element. For this purpose photosensitive sheet **40** is provided at its trailing end with a trailer element **138** comprising a rectangular blank of sheet material folded longitudinally upon itself to provide two layers secured to one another and to the trailing edge of the photosensitive sheet at their longitudinal edges. One of the layers, designated **140**, located to the rear of the other layer, designated **142**, is provided with a V-shaped notch **144** in its longitudinal edge. Notch **144** provides an opening in rearmost layer **140** of trailer element **138** adapted to be engaged by the engagement member of the next succeeding film unit as the photosensitive sheet comprising the trailer element is withdrawn from the camera past the engagement member.

The engagement members, being resiliently deformable, are readily compressed so as to occupy little space within the container and be easily movable between the pressure-applying rolls, and yet are sufficiently resilient so that the engagement section of each engagement member projects into the opening in a sheet of the previous film unit as the latter is moved past the engagement member. The resilience and shape of the engagement members and openings are such that engagement between a member and a sheet is positive at least until the engagement member is withdrawn from the camera between the pressure-applying rolls, whereupon the engagement member will deform and/or the sheet will roll or tear thereby releasing the engagement member from the trailing end portion of the previous sheet, when the leader section **50**, to which the engagement member is attached, has been extended to its full length and withdrawal movement of the leader section is abruptly halted.

Additional means are provided for further assuring engagement of a sheet and engagement member as the sheet comprising a film unit or a cover sheet is withdrawn from the container and camera. This last-mentioned means comprises a large, generally U-shaped notch or recessed section **146** in the edge of rear wall **14** adjacent withdrawal opening **32** and overlying the engagement members and intermediate portion **74** of pressure plate **64**. A cantilever spring **148** is provided mounted on the inside of the rear wall of lower section **118** of the camera housing for projecting into the container through notch **146** and cooperating with intermediate portion **74** for compressing portions of the film units located therebetween. Thus, as a photosensitive sheet is moved past an engagement member, spring **148** presses the photosensitive sheet against the engagement member so that the latter is positively urged into engagement with the trailer element of the photosensitive sheet. Notch **146** is adapted to serve one other function and that is to allow the operator of the camera to thread a leader between the pressure-applying rolls if, for some reason, the engagement member on the leader should fail to engage the end portion of the preceding cover sheet or film unit as the latter is withdrawn from the container and camera. In order to manually withdraw a leader section **50** and thread the leader section between the pressure-applying rolls, the operator opens lower section **118** of the camera housing separating the pressure-applying rolls and manually grasps the rearmost engagement member and leader section, withdrawing them between the pressure-applying rolls, whereafter the lower housing section is closed. This operation can be performed without removing the film pack from the camera or exposing a film unit within the pack.

The trailer element of each photosensitive sheet is designed to perform two functions in addition to engaging and withdrawing an engagement member. The first of these is trapping and retaining any excess processing fluid spread beyond the trailing edges of the photosensitive and second sheets. Trailing end section **54** of second carrier sheet **52** and trailer element **138** are each formed of a relatively thin sheet material and in aggregate may have a thickness which is substantially less than the aggregate thickness of photosensitive sheet **40**, second sheet **42** and intermediate section **56** of second carrier sheet **52**. Thus, if the pressure-applying members are of the type having a fixed gap therebetween, which gap is at least equal to the aggregate thickness of the sheets comprising the film unit in the region of the photosensitive and second sheets, then a space will be formed between trailing end section **54** and trailer element **138**, as the

latter move between the pressure-applying members, in which excess processing fluid is collected and retained. To insure that such a space will exist and that it will be of sufficient volume to contain the excess processing fluid, a pair of spacer elements (not shown) are provided secured to trailing end section **54** of second carrier sheet **52** adjacent the lateral margins thereof. The spacer elements are provided for spacing apart the pressure-applying rolls as the trailing end section and the trailer element move between the rolls.

The second function performed by trailer element **138** is that of retaining each photosensitive element against movement due to frictional forces exerted thereon by an adjacent photosensitive element (of the previous film unit) as the latter is withdrawn from exposure position in the container; and also for preventing movement of the photosensitive element as the leader section **50** attached thereto is withdrawn from the camera by engagement with the previous film unit or cover sheet and is extended to its full length. The corners of rear layer **140** of trailer element **138** are cut off diagonally and the underlying corner portions **154** of forward layer **142** are secured, as by stapling, to intermediate portion **74** of pressure plate **64**. The corner portions of forward layer **142** are of sufficient strength to resist tearing due to the tendency of the photosensitive element to move either as a result of withdrawal of the previous photosensitive element or when leader section **50** has been withdrawn to its full extent and the engagement member thereon is released. However, corner portions **154** are sufficiently weak so that they tear when the leader section is manually grasped for pulling a film unit from the camera, and, to promote tearing, the corner sections may be partially die cut as shown in the drawings. The rear surface of intermediate portion **74** of the pressure plate may be embossed or recessed in the region where the corner portions are stapled thereto so that the portions of the staples projecting rearwardly through the pressure plate do not project above the rear surface of intermediate portion **74**.

In the withdrawal and processing of a film unit, as tension is applied to leader section **50**, it (the pulling force) is transmitted to the photosensitive sheet which is moved around rolled edge **66** of the pressure plate between the pressure plate and the second sheet of the film unit into superposition with the second sheet. During movement of the photosensitive sheet into superposition with the second sheet, the latter remains substantially stationary so that leading end section **58** of second carrier sheet **52** is required to break and commence rolling back upon itself, adjacent its point of attachment to tapered section **48** of first carrier sheet **44**. It is for this reason that leading end section **58** is tapered toward its point of attachment to tapered section **48** since the sheet tends to break and commence rolling upon itself at its narrowest and hence weakest point. When the photosensitive sheet has moved into superposition with the second sheet, then continued application of a pulling force is transmitted to the second sheet as well, thereby moving both sheets in superposition from the container.

Each second sheet is required to remain substantially stationary within the container as the photosensitive element of the film unit which it comprises is moved into superposition therewith and to remain substantially stationary during movement of a previous film unit or the cover sheets. Means are provided for releasably holding the second sheets against movement as a result of movement of a photosensitive sheet, a film unit or the cover sheets from the container and in the form shown this means comprises a pair of hold-back springs **150** mounted on the inside of the rear wall of the camera housing for extending forwardly therein across withdrawal opening **32** on opposite sides of the leader extending through the opening. Springs **150** are deformable so as to allow withdrawal of a film unit while being sufficiently stiff to preclude movement of the second sheets as a result of movement of other elements from the film pack. This second sheet-restraining means may be provided as a component of the film pack and take the form of elements shown, for example, in the aforementioned application Serial No. 749,024.

As a film unit is drawn between a pair of pressure-applying members such as rolls **114** and **116** the pressure-applying members first compress container **62** ejecting its fluid contents between the carrier sheets of the film unit and then spread the fluid between the photosensitive and second sheets toward the trailing end thereof. The intermediate portions of the pressure-applying members are supported apart from one another by the marginal portions of intermediate section **56** of second carrier sheet **52** at the margins of the photosensitive and second sheets so that a space is provided between areas of the photosensitive and second sheets, defined by aperture **60**, in which the fluid is spread. The thickness of the layer of fluid spread in this area thus is, at least in part, a function of the thickness of intermediate section **56** of the second carrier sheet.

The film pack of the invention is supplied in complete readiness for use in a camera with only leader **84** projecting from withdrawal opening **32** in the container. The pack can be dropped into the camera with the rear housing section pivoted to an open position whereupon the rear housing section is pivoted to a closed position so that leader **84** extends from the camera between the pressure-applying rolls. The pack is prepared for a first exposure by withdrawing the cover sheets by pulling on leader **84** extending from the pack and camera. Withdrawal of the cover sheets is also effective to feed the leader section **50** of the first film unit from the camera between the pressure-applying rolls so that the leader section may be grasped for withdrawing and processing the first film unit following exposure of the photosensitive element thereof. The construction is such that only one leader at a time extends from the camera, and the camera may be provided with suitable means for holding the leader so that the engagement member thereof will not be accidentally engaged so as to withdraw a film unit from the camera.

Since certain changes may be made in the above product without departing from the scope of the invention herein involved, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. A photographic film assemblage for use in photographic apparatus such as a camera wherein the photosensitive elements of a film unit is exposed and said film unit is thereafter withdrawn from said apparatus for distributing a fluid processing composition within said film unit to effect the treatment of said photosensitive element; said assemblage comprising, in combination, a container; a film unit including a photosensitive element mounted within said container in position for exposure; said container including an opening for allowing the withdrawal of said film unit; and at least another element, not a component of said film unit and unconnected therewith, mounted within said container for withdrawal therefrom through said opening prior to exposure and withdrawal of said film unit; said film unit including a leader disposed entirely within said container and providing means for withdrawing said film unit through said opening from said container and from said apparatus; said other element including a leader extending from said container through said opening and providing means for engaging and withdrawing said other element from said container through said opening and from said apparatus; said other element including a first engagement portion at the trailing end thereof; said leader of said film unit including a second engagement portion disposed apart from said

first engagement portion in position for engagement therewith during withdrawal of said other element from said container; said first and second engagement portions cooperating, when engaged with one another, to join said leader of said film unit to the trailing end portion of said other element whereby continued withdrawal of said other element withdraws said leader of said film unit through said opening.

2. The photographic film assemblage of claim 1 including a second film unit comprising a photosensitive element mounted for exposure within said container and a leader disposed entirely within said container and providing means for withdrawing said second film unit through said opening from said container; the first-mentioned film unit including a third engagement portion at the trailing end of the photosensitive element thereof; said leader of said second film unit including a fourth engagement portion disposed apart from said third engagement portion in position for engagement therewith during withdrawal of the photosensitive element of said first-mentioned film unit from said container; said third and fourth engagement portions cooperating, when engaged with one another, to join said leader of said second film unit to the trailing end of said photosensitive element of said first-mentioned film unit whereby continued withdrawal of said first-mentioned film unit withdraws said leader of said second film unit through said opening.

3. A photographic film assemblage for use in photographic apparatus such as a camera, wherein the photosensitive element of a film unit is exposed and said film unit is thereafter withdrawn from said apparatus for distributing a fluid processing composition within said film unit to process said photosensitive element; said film assemblage comprising, in combination, a container; a film unit including a photosensitive element mounted within said container for exposure; said container including an opening for allowing the withdrawal of said film unit; and at least another element mounted within said container for withdrawal therefrom through said opening prior to exposure and withdrawal of said film unit; said film unit including a leader disposed entirely within said container and providing means for withdrawing said film unit through said opening from said container; said other element including a portion extending from said container through said opening and providing means for withdrawing said other element from said container through said opening; said other element including an engagement aperture formed in the trailing end thereof; a portion of said leader being located adjacent said opening and including an engagement member extending in a direction opposite to the direction of movement of said film unit and said other element from said container through said opening, and toward and into engagement with said other element for engaging said aperture in said trailing end of said other element as the latter is withdrawn through said opening and thereby withdrawing said leader through said opening from said container.

4. The photographic film assemblage of claim 3 wherein said leader includes a section arranged with a Z-fold to allow a portion of said leader to be withdrawn from said container through said opening without moving said film unit.

5. The photographic film assemblage of claim 3 wherein said engagement member is resilient and includes two sections comprising a first section attached to said portion of said leader of said film unit and a second section extending in a direction opposite the direction of movement of said film unit and said other element and toward and into engagement with said other element.

6. The photographic film assemblage of claim 3 including a second film unit comprising a photosensitive element mounted within said container for exposure and a leader disposed entirely within said container and providing means for withdrawing said second film unit through said opening from said container, the first-mentioned film unit including an engagement aperture formed in the trailing end of the photosensitive element thereof, a portion of said leader of said second film unit being located adjacent said opening and including an engagement member extending in a direction opposite to the direction of movement of said first-mentioned film unit from said container through said opening, and into engagement with a portion of said first-mentioned film unit, for engaging said aperture in said trailing end of said photosensitive element of said first-mentioned film unit as the latter is withdrawn through said opening and thereby withdrawing said leader of said second film unit through said opening from said container.

7. The photographic film assemblage of claim 3 wherein said container is provided with an exposure aperture, said photosensitive element is positioned for exposure in alignment with said exposure aperture and said other element comprises means disposed across said exposure aperture for preventing light, admitted therethrough, from reaching said photosensitive element.

8. A photographic film assemblage for use in photographic apparatus such as a camera, wherein the photosensitive element of a film unit is exposed and said film unit is thereafter withdrawn from said apparatus for distributing a fluid within said film unit to effect the processing thereof; said film assemblage comprising, in combination, a container; a film unit including a photosensitive element mounted for exposure within said container; said container including an opening for allowing the withdrawal of said film unit; and at least another element mounted within said container and including a sheet which is withdrawn through said opening from said container prior to exposure and withdrawal of said film unit; said film unit including a leader disposed entirely within said container and providing means for withdrawing said film unit through said opening from said container and from said apparatus, said other element including a portion extending from said container through said opening providing means for withdrawing said sheet from said container through said opening, said sheet of said other element including a trailing end portion provided with a triangular engagement aperture having an apex closest the trailing edge of said sheet; a portion of said leader of said film unit being located adjacent said opening and including an engagement member extending in a direction opposite to the direction of movement of said film unit and said sheet from said container through said opening, and toward and into engagement with said other element, for engaging said trailing end of said sheet at said triangular aperture therein as said sheet is withdrawn from said opening and thereby withdrawing said leader of said film unit through said opening.

9. The photographic film assemblage of claim 8 wherein said container includes an exposure aperture, said photosensitive element of said film unit is positioned for exposure in alignment with said exposure aperture and said sheet of said other element is positioned across said exposure aperture for preventing light, admitted therethrough, from striking said photosensitive element.

10. The photographic film assemblage of claim 8 wherein said trailing end of said sheet comprises two superposed layers and said engagement aperture is formed in only one of said superposed layers.

11. The photographic film assemblage of claim 8 comprising a second film unit including a photosensitive element positioned for exposure within said container and a leader including a portion located adjacent said opening and having an engagement member mounted thereon and extending into engagement with the first-mentioned film unit, the latter including an engagement aperture in the trailing end of a portion thereof for becoming engaged with said engagement member of said second film unit during withdrawal of said first-mentioned film unit from said container through said opening.

12. The photographic film assemblage of claim 11

wherein the last-mentioned engagement aperture is provided in the trailing end of said photosensitive element of said first-mentioned film unit.

13. The photographic film assemblage of claim 12 wherein said photosensitive element of said first-mentioned film unit is provided at its trailing end with a pair of superposed sheets and said last-mentioned engagement aperture is formed in only one of said superposed sheets.

14. A photographic film assemblage for use in photographic apparatus such as a camera, wherein the photosensitive element of a film unit is exposed and said film unit is thereafter withdrawn from said apparatus for distributing a fluid within said film unit in contact with said photosensitive element; said film assemblage comprising, in combination, a container; a film unit within said container, said film unit comprising a photosensitive element, a second element adapted to be superposed with said photosensitive element for aiding in the distribution of a processing fluid between the superposed elements, a connecting element for registering said photosensitive and said second elements in superposition with one another and a leader coupled with said connecting element, said photosensitive and second elements being arranged apart from one another with said photosensitive element in position for exposure; said container including an opening for allowing the withdrawal of said film unit; means for guiding said photosensitive element into superposition with said second element in response to withdrawal movement of said leader through said opening; and at least another element within said container adapted to be withdrawn therefrom through said opening prior to exposure and withdrawal of said film unit, said other element including a portion extending from said container through said opening and providing means for withdrawing said other element from said container through said opening and from said apparatus, said other element including an engagement aperture formed in a trailing end portion thereof; a portion of said leader being located adjacent said opening and including a resilient engagement member extending in a direction opposite to the direction of movement of said film unit and said other element from said container through said opening, and toward and into engagement with said other element, for engaging said trailing end portion of said other element at said aperture therein as said other element is withdrawn through said opening and thereby withdrawing said leader through said opening from said container, and for releasing said other element following withdrawal of said leader of said film unit from said container.

15. The photographic film assemblage of claim 14 comprising a second film unit including a photosensitive element positioned for exposure, a second element positioned apart from the last-mentioned photosensitive element, a connecting element for registering the last-mentioned photosensitive and second elements in superposition with one another and a leader coupled with the last-mentioned connecting element, said last-mentioned photosensitive and second elements being arranged to be guided into superposition with one another by said means for guiding the first-mentioned photosensitive and second elements into superposition with one another, the last-mentioned leader including a portion positioned adjacent said opening and having mounted thereon a resilient engagement member extending into engagement with a portion of said first-mentioned film unit, the latter including an engagement aperture formed in the trailing end portion of one of said first-mentioned photosensitive and second elements for engaging said engagement member during withdrawal of said first-mentioned film unit through said opening and thereby withdrawing at least said portion of said last-mentioned leader through said opening.

16. The photographic film assemblage of claim 15 wherein the last-mentioned engagement aperture is formed in the trailing end portion of said first-mentioned photosensitive element.

17. A photographic film assemblage for use in photographic apparatus such as a camera, wherein the photosensitive element of a film unit is exposed and said film unit is thereafter withdrawn from said apparatus for distributing a fluid within said film unit in contact with said photosensitive element; said film assemblage comprising, in combination, a container; a film unit within said container; said container having an opening at one end for allowing withdrawal of said film unit from said container, said film unit comprising a photosensitive element, a second element adapted to be superposed with said photosensitive element for aiding in the distribution of a processing fluid between the superposed elements and means including a leader for withdrawing said elements in superposition from said container through said opening, said film unit being positioned within said container with said photosensitive and second elements arranged in overlying relation, said photosensitive element being positioned for exposure and an end portion of said second element being located adjacent said opening, said leader being disposed between said photosensitive and second elements with an end portion of said leader located adjacent said opening; and at least another element within said container adapted to be withdrawn therefrom through said opening prior to exposure of said photosensitive element and withdrawal of said film unit, said other element including a portion extending through said container on the side of said second element opposite said photosensitive element and through said opening so as to provide means for withdrawing said other element from said container through said opening and from said camera, said other element having an engagement aperture formed in a trailing end portion thereof; said film unit including a resilient engagement member comprising a first section mounted on said end portion of said leader between said photosensitive and second elements and a second section extending around said end portion of said second element on the same side thereof as said other element, toward and into engagement with said other element for becoming engaged in said aperture in said trailing end portion of said other element as the latter is withdrawn through said opening and thereby withdrawing said leader of said film unit through said opening from said container.

18. The photographic film assemblage of claim 17 wherein said sections of said resilient engagement member extend in substantially the same direction toward the end of said assemblage opposite said opening, and are biased toward one another into pressure engagement with opposite sides of a portion of said second element.

19. The photographic film assemblage of claim 18 wherein said section of said resilient engagement member located on the side of said second element opposite said photosensitive element is curved away from said second element.

20. The photographic film assemblage of claim 18 wherein said engagement member is formed of a thin sheet material having a thickness which is less than the aggregate thickness of the elements comprising said film unit.

21. The photographic film assemblage of claim 17 wherein a dividing member is provided in said container for guiding said photosensitive element into superposition with second element in response to withdrawal of said leader of said film unit from said container through said opening, said photosensitive element being positioned on one side of said dividing member and said second element and said leader being positioned on the opposite side of said dividing member.

22. The photographic film assemblage of claim 21 wherein said container is provided with an exposure aperture; said photosensitive element is positioned in alignment with said exposure aperture; said other element

comprises a cover sheet extending across said exposure aperture between the latter and said photosensitive element for preventing light, admitted through said exposure aperture, from striking said photosensitive element; and a portion of said second element extends around the end of said dividing member, through said container on the side of said second element opposite said dividing member and from said container through said opening.

23. The photographic film assemblage of claim 22 wherein said container comprises a forward wall and a rear wall; said dividing member is located intermediate said walls; said exposure aperture is provided in said forward wall; and resilient means are provided on said rear wall for biasing said dividing member toward said forward wall.

24. The photographic film assemblage of claim 17 comprising a second film unit including a second photosensitive element positioned for exposure in stacked relation with the first-mentioned photosensitive element, a second element adapted to be superposed with said second photosensitive element for aiding in the distribution of a processing fluid between the superposed elements of said second film unit and means including a leader for withdrawing said elements of said second film unit in superposition from said container through said opening, said second element and said leader of said second film unit being located intermediate said second element of said first-mentioned film unit and second photosensitive element, said second element of said second film unit including an end portion positioned adjacent said opening, said leader of said second film unit including a portion positioned adjacent said opening; a resilient engagement member mounted on said portion of the last-mentioned leader and extending around said end portion of said second element of said second film unit into engagement with a portion of said first-mentioned film unit, the latter including an engagement aperture in the trailing end of one of the elements thereof for engaging the last-mentioned resilient engagement member and withdrawing the latter and at least said portion of said last-mentioned leader through said opening as said first-mentioned film unit is withdrawn through said opening.

25. The photographic film assemblage of claim 23 wherein the last-mentioned engagement aperture is formed in a trailing end portion of said photosensitive element of said first-mentioned film unit.

26. A photographic film assemblage for use in photographic apparatus such as a camera, wherein the photosensitive element of a film unit is exposed and said film unit is thereafter withdrawn from said apparatus for distributing a fluid within said film unit to process said photosensitive element; said film assemblage comprising, in combination, a container; a film unit within said container; said container having an opening at one end for allowing withdrawal of said film unit from said container; said film unit comprising a photosensitive element, a second element arranged for superposition with said photosensitive element for aiding in the distribution of a processing fluid between the superposed elements, a connecting element coupled with the leading ends of said photosensitive and second elements for registering said photosensitive and second elements in superposition with one another and a leader coupled with said connecting element for withdrawing said film unit from said container, said film unit being arranged within said container with said leading end of said second element located adjacent said opening and said photosensitive element located in position for exposure with said leading end of said photosensitive element located adjacent the other end of said container; means for guiding said photosensitive element into superposition with said second element in response to withdrawal movement of said leader through said opening; and at least another element within said container adapted to be withdrawn therefrom through said opening prior to exposure of said photosensitive element and withdrawal of said film unit, said other element including a portion extending from said container through said opening so as to provide means for withdrawing said other element from said container through said opening and from said apparatus, said other element including an engagement aperture formed in the trailing end thereof, said leader of said film unit extending between said photosensitive and second elements and including a portion located adjacent said opening and having mounted thereon a resilient engagement member extending around said leading end of said second element to the opposite side thereof from said photosensitive element and toward the trailing end of said second element into engagement with said other element for becoming engaged in said aperture in said trailing end of said other element as the latter is withdrawn through said opening and thereby withdrawing said leader of said film unit through said opening from said container.

27. The photographic film assemblage of claim 26 wherein said leader of said film unit is provided with a Z-fold for allowing withdrawal of at least said portion of said leader through said opening from said container without moving said photosensitive and said second elements coupled therewith; and said engagement member is so constructed as to become disengaged from said trailing end of said other element following withdrawal of said portion of said leader.

28. The photographic film assemblage of claim 26 wherein said container includes an exposure aperture, said photosensitive element is positioned for exposure in alignment with said exposure aperture and said other element extends across said exposure aperture for preventing light, admitted therethrough, from striking said photosensitive element.

29. The photographic film assemblage of claim 26 comprising a second film unit including a photosensitive element, a second element, a connecting element coupled with the leading ends of the last-mentioned photosensitive and second elements and a leader coupled with the last-mentioned connecting element for withdrawing said second film unit from said container; said film units being arranged within said container with the photosensitive elements thereof in stacked relation and the second elements thereof in stacked relation apart from said photosensitive elements, said elements of said second film unit being disposed between said photosensitive and second elements of the first-mentioned film unit, said last-mentioned leader extending between said last-mentioned photosensitive and second elements and including a portion located adjacent said opening and having mounted thereon a resilient engagement member extending around the leading end of said last-mentioned second element on the opposite side thereof from said last-mentioned photosensitive element and toward the trailing end of said last-mentioned second element into engagement with the first-mentioned second element, said photosensitive element of said first-mentioned film unit including an aperture in the trailing end thereof for engaging the last-mentioned engagement member during withdrawal of said first-mentioned film unit through said opening from said container.

30. The photographic film assemblage of claim 26 wherein said guide means comprises a dividing member extending substantially from end to end of said container, said photosensitive elements are positioned on one side of said dividing member, said second elements and said leaders are positioned on the opposite side of said dividing member, and said connecting elements extend around the end of said dividing member furthest from said opening.

31. The photographic film assemblage of claim 30 wherein said container is provided with an exposure aperture, said photosensitive element is positioned within said container in alignment with said exposure aperture and said other element comprises a cover sheet extending across said exposure aperture for preventing light, ad-

mitted therethrough, from striking said photosensitive element and said leader of said second element extends around said end of said dividing member.

32. The photographic film assemblage of claim 26 wherein said container includes a forward wall having an exposure aperture therein, said photosensitive elements being disposed within said container between said dividing member and said forward wall in alignment with said

exposure aperture; and said assemblage includes a rear wall and spring means mounted on said rear wall for urging said dividing member toward said forward wall.

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