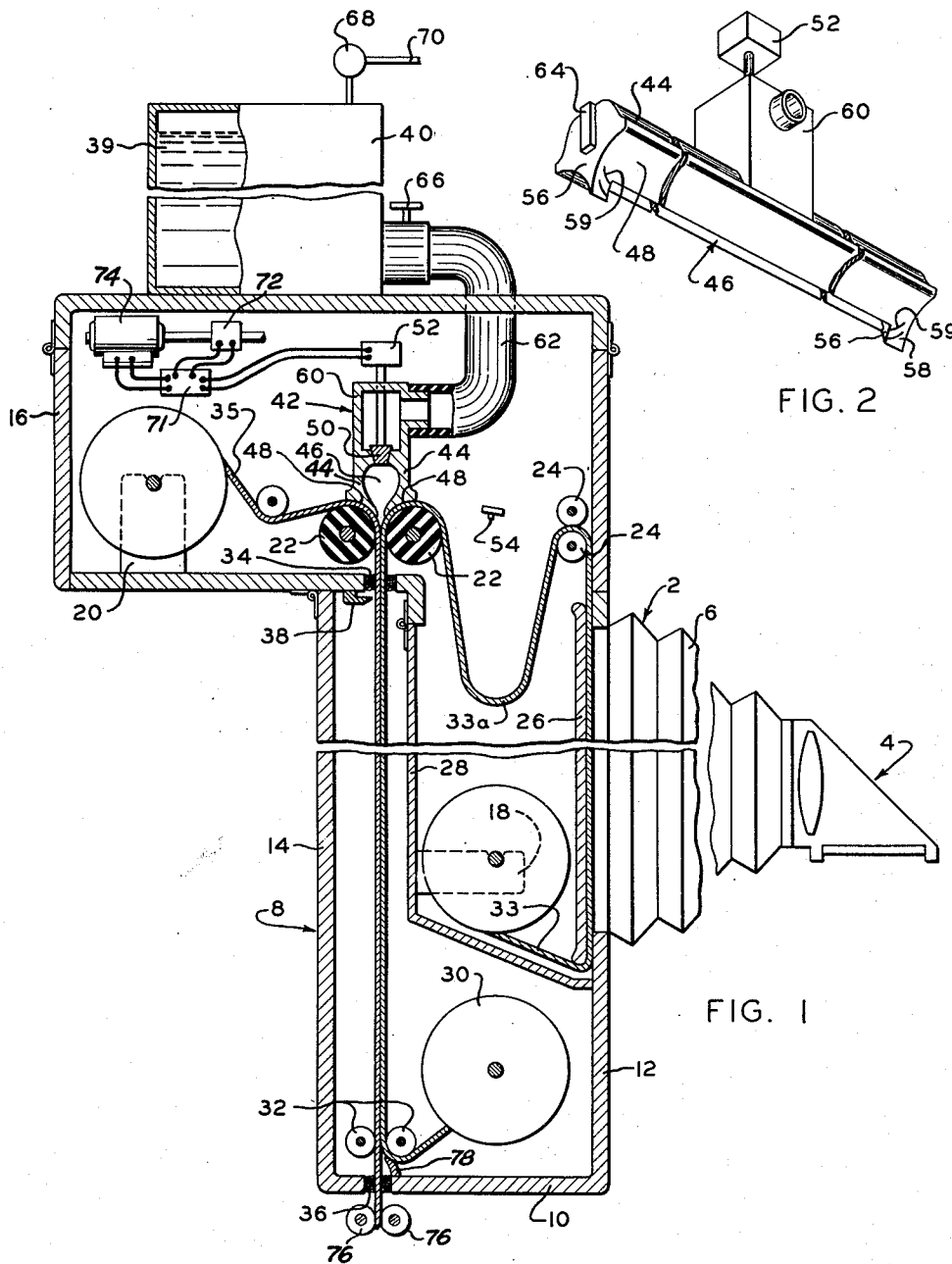


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E. H. LAND
PHOTOGRAPHIC APPARATUS

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INVENTOR
Edwin H. Land
BY *Donald L. Brown*
and *Oliver H. Hayes*
Attorneys

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PHOTOGRAPHIC APPARATUS

Edwin H. Land, Cambridge, Mass., assignor to
Polaroid Corporation, Cambridge, Mass., a cor-
poration of Delaware

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This invention relates to photography and more particularly to a novel photographic apparatus adapted for processing an exposed photosensitive sheet material.

It is a principal object of the present invention to provide a photographic apparatus, such as a camera, which is suitable for accomplishing a predetermined processing of an exposed photosensitive sheet by providing between one surface of the exposed photosensitive sheet and another sheet a thin layer of liquid capable of accomplishing said processing.

Another object of the invention is to provide such an apparatus which is particularly adapted for the exposure of a photosensitive layer including a gelatino silver halide emulsion and particularly where the processing liquid comprises an aqueous viscous alkaline solution of a developer and a silver halide solvent, the apparatus being capable of spreading a layer of the processing liquid between the exposed emulsion and the other sheet to form a processing lamination which can be separated after a relatively short time to give a positive image on the second sheet.

Another object of the invention is to provide an apparatus of the above type particularly adapted for handling processing liquids which are readily oxidizable in such a manner that undesired oxidation of the processing liquid is kept to a minimum.

Still another object of the invention is to provide such an apparatus particularly adapted for photocopy work wherein it is desirable to produce a large number of copies utilizing rolls of photosensitive material and rolls of positive image-receiving material, such an apparatus being capable of either continuous or intermittent operation, and wherein said apparatus includes means for intermittently advancing and exposing said photosensitive material, and means for continuously advancing said two materials past a liquid-feeding means.

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

The invention accordingly comprises the apparatus possessing the construction, combination of elements and arrangement of parts 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 con-

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nection with the accompanying drawings wherein:

Figure 1 is a diagrammatic sectional view of one form of the invention which is particularly adapted for use as a photocopy machine; and

Fig. 2 is a fragmentary diagrammatic perspective bottom view of the liquid-feeding means of Fig. 1.

In general the invention comprises a photographic apparatus for accomplishing a predetermined processing of a sheet, which sheet includes a photosensitive stratum, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet material, means for positioning a supply of said other sheet material, and means for guiding said two sheet materials from their respective supplies to a position where said sheet materials are in superimposed relation. These guiding and superimposing means preferably comprise a pair of surfaces between which and with respect to which the sheets are adapted to move in superimposed relation with a liquid-receiving space therebetween. There are also provided means for feeding a predetermined quantity of processing liquid to said sheet materials, the liquid-feeding means being so positioned with respect to the means for superimposing the sheets that the liquid does not contact the superimposing means. The apparatus also preferably includes means (preferably the superimposing means) for predeterminedly controlling the thickness of the liquid-receiving space between said sheet materials so as to predetermine the thickness of the layer of liquid confined between adjacent faces of said sheet materials. The apparatus preferably includes sealing means cooperating with those surfaces of said two sheets to be bonded together by the layer of liquid, the sealing means defining an enclosed space adjacent the point of superimposition of said two sheets, said sealing means forming a substantially liquid-tight seal with said surfaces and confining said body of liquid to contact only with said surfaces of said sheets in position to be supplied to the liquid-receiving space between said sheets as said sheets move with respect to said body of liquid. In one preferred form of the invention the sealing means additionally assist in preventing access of air to the body of processing liquid and thereby minimizes the possibility of oxidation of any readily oxidizable photographic reagents used in the processing liquid which may be spread between the two sheet materials. It is

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well known, for example, that certain photographic developing solutions, if sufficiently exposed to oxygen, will oxidize to create stain-forming components.

In a preferred form of the invention the apparatus is particularly adapted for positioning a supply, such as a roll, a photographic film including a gelatino silver halide emulsion. Means are provided for exposing the silver halide emulsion to a subject image, such as a letter or page to be copied. With the preferred type of process, the other roll of sheet material comprises an image-carrying sheet, preferably formed of a paper such as baryta paper, bond paper, or other relatively opaque white papers. The two means for positioning the two rolls of material are so arranged that the photosensitive emulsion of the photosensitive sheet may be exposed after removal from its roll and the two sheets may be brought into superimposed relation with the exposed photosensitive emulsion being brought into face-to-face relation with that surface of the image-carrying sheet particularly adapted for having a positive image formed thereon. Positioned adjacent the means for superimposing the two sheet materials is the sealing means which preferably defines an enclosed space with inner surfaces (i. e., those surfaces to be bonded together by the layer of liquid) of the two sheets adjacent the point where these two sheets converge. This space preferably is filled with a body of processing liquid which is preferably thicker than the final desired thickness of the layer of spread liquid and has a transverse dimension substantially equal to the transverse dimension of the area to be covered. In a preferred form of the invention the sealing means constitute a part of the liquid-feeding means.

In the preferred form of process, the liquid comprises a solution of a developer and a silver halide solvent, and is preferably quite viscous and quite alkaline. When such a layer of liquid is spread between the exposed photosensitive emulsion and the image-carrying sheet, it preferably bonds these sheets together, develops the latent negative image and, concurrently therewith, forms a positive image on the surface of the image-carrying sheet. Such a processing may be accomplished in a time ranging anywhere from 5 seconds to somewhat more than 1 minute, depending upon the constituents of the liquid and the type of silver halide emulsion employed. At the end of the processing period the negative image is preferably separated from the positive image by a suitable means and the final positive is fed from the apparatus through a suitable opening therefrom.

Referring now to Figs. 1 and 2, there is shown one preferred form of the apparatus embodying the present invention. As shown particularly in Fig. 1, there is provided a front portion generally indicated at 2 to which is suitably secured a lens and shutter system schematically shown at 4 and being suitably connected to a camera housing 3 by means of a bellows 6. The housing 3 comprises a bottom wall 10, front wall 12, a rear wall 14 and a top portion 16. Between the rear wall 14 and the front wall 12 there is preferably provided a partition 28. Secured to the partition 28 is a means schematically shown at 18 for positioning a roll of photosensitive sheet material 33, this sheet material being held in the focal plane of the camera by means of a backing plate 25, so that a predetermined

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framed area of the sheet may be exposed. For advancing the sheet material with an intermittent motion, there is a pair of rolls indicated at 24, these rolls being preferably adapted to engage the edges of the photosensitive sheet 33. Mounted in the upper portion 16 of the housing is a means 20 for positioning a roll of positive image sheet 35. For the purpose of at least guiding the two sheet materials into superimposed relation there are provided a pair of pressure rolls 22 which may be suitably driven, in which case they also serve to feed the two sheets. If rolls 22 are idler rolls they only serve to guide and superimpose the sheets. Another pair of feed rolls, indicated schematically at 32, is positioned near the bottom wall 10 of the housing, these latter rolls being preferably margin-engaging rolls. A take-up spool 30 is preferably provided for the processed photosensitive sheet 33. For discharging the positive image sheet 35 from the camera, there is provided a light-tight discharge opening indicated at 36 in the bottom wall 10.

At 39 there is indicated a processing liquid carried by a suitable supply therefor such as a container 40. This container is suitably connected, such as by means of a flexible tube 62 and a valve 56, to a feeding or dispensing means schematically indicated at 42 (also shown in Fig. 2). This feeding means is adapted to provide a confined body of liquid in contact with inner surfaces of the sheets for spreading between the sheets as they are superimposed. The liquid-feeding assembly 42 preferably comprises a body portion including two walls 44 defining therebetween a confined space 46 which is adapted to be filled with the processing liquid 39 during use of the apparatus. The ends of the space 46 are preferably closed by a pair of end walls 56 (see Fig. 2). The bottom of space 46 is left open so as to permit application, to the two sheets 33 and 35, of the liquid confined thereby as the sheets are superimposed adjacent this open bottom. For forming a substantially liquid-tight seal with the two sheets, the walls 44 are provided with curved flanges 48 adapted to bear against the sheets as they pass over the pressure rolls 22. End walls 56 also have sealing surfaces 58 corresponding to the sealing surfaces of the sealing flanges 48, the surfaces 58 being preferably provided with downwardly and inwardly extending grooves for the purpose of pumping back into the space 46 any liquid tending to travel outwardly beyond ends 56. For controlling the feed of liquid into the space 46 there is provided a valve housing schematically indicated at 60, this housing containing a valve 50 suitably operated by a means such as a solenoid 52. In a preferred form of the invention the feeding assembly 42 is removably mounted adjacent the two superimposing rolls 22 so as to be readily dismounted for cleaning. For predeterminedly maintaining alignment of the liquid-feeding assembly 42 with the rolls 22, the assembly 42 is preferably provided with a pair of end members 64 adapted to cooperate with a means such as a slot, not shown, in the side of the camera housing. This arrangement permits vertical movement of the assembly 42 so that the weight of the assembly may be used to provide the sealing pressure between the sealing surfaces and the two sheets. This pressure may be increased, if desired, by means of a spring bearing downwardly on the feeding assembly 42. While the resilient mount-

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ing of feeding assembly 42 is preferred, this type of mounting is not essential and the assembly may be fixedly mounted where the thickness of paper 35 and film 33 are quite constant.

The liquid 39 is preferably maintained under a predetermined gas pressure in the reservoir 40. The gas employed is preferably an inert gas such as nitrogen, which is introduced from a supply (not shown) through a pipe 70 and a pressure control valve 68, valve 68 being adjusted for any desired pressure, depending upon the viscosity of the liquid and speed of operation of the device. The liquid in chamber 46 is preferably under sufficient pressure, about 1 or 2 pounds per square inch to insure positive feed of the liquid, although this is not essential, the pressure on the reservoir being necessarily sufficient only to overcome resistance to flow in the valves 50 and 66 and the pipe 62.

It can be seen from the above description of the liquid-feeding and superimposing means, that there are provided seals which cooperate with the surfaces of the two sheets to be bonded to define an enclosed substantially liquid-tight space adjacent the point of superimposition of the two sheets. The dimension of the feeding means extending transversely of the sheet is preferably slightly less than the width of the sheets 33 and 35 so that it applies the liquid to the sheets in a body or "meniscus" slightly narrower than the sheets. This body of liquid is quite well protected against ingress of oxygen, due to the relatively tight fit between the two sheets and cooperating parts of the liquid-feeding means. When a high viscosity liquid including a polymeric film-forming material is used, the opacity of such a film-forming material to oxygen assists in preventing oxidation of the oxidizable constituents of the liquid.

As the sheets move in superimposed relation between the superimposing surfaces of rolls 22, there is provided a liquid-receiving space between the two sheets. The liquid-receiving space does not exist in the static condition of the preferred form described above, but is created as the result of movement of the sheets between the superimposing surfaces, the frictional contact of the liquid with the sheets being sufficient to start flow of liquid, confined between the sheets, between the two superimposing surfaces. Since these superimposing surfaces are resilient, they are deflected by the pressure of the liquid flowing therebetween so that the liquid-receiving space exists in the dynamic condition of use of the apparatus. Within the space defined by the seals the liquid is confined to contact only with the inner surfaces of the sheets and is held in position to be supplied in a thin layer to the liquid-receiving space between the sheets as the sheets move with respect to the confined body of liquid. In addition, the apparatus is so arranged that the two sheets being superimposed protect the superimposing means from contact with the liquid.

In order to assist in preventing leakage of the liquid from the liquid-feeding means during times when the apparatus is not being used, there may be provided a pair of cams (not shown) adapted to move the feeding means downwardly, thus effectively sealing the liquid contained within the feeding means 42 by compressing the sheets 33, 35 and wedging ends 56 between the rolls. Additionally, the valves 50 and 66 are also preferably closed, this being

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most desirable when the machine is to be left idle for a considerable period.

The valve 50 is preferably opened by solenoid 52 whenever rolls 22 are rotating, the solenoid 52, for example, being controlled by a switch 71 associated with a clutch 72 which controls the rotation of rolls 22 and/or 32.

In the above-described apparatus the rolls 32 are preferably driven by suitable means such as a power supply 74. If rolls 22 are driven, they preferably have the same surface speed of rotation as rolls 32. Take-up spool 30 is also preferably driven by this same means with a friction clutch included in its drive to compensate for different speeds of rotation necessary where it is of considerable diameter, it being apparent that its speed should be decreased as the diameter of the negative coil thereon increases. Rolls 24, which feed the photosensitive film past the focal plane of the apparatus, are preferably driven intermittently with a high surface speed of rotation. Since these rolls 24 move the photosensitive sheet 33 at a speed faster than the sheet 33 moves between rolls 22, a loop 33a is formed in the film 33, this loop being conveniently positioned between the backing plate 26 and the partition 28.

The power supply 74 for actuating the various rolls may comprise an electric or spring motor or other suitable devices. It is equally possible, but less preferred, to have the movement of the positive sheet drive the rolls 32, 22, 24, and the spool 30. In this case the operator of the machine grasps that portion of sheet 35 extending from the apparatus, and, by pulling a processed positive from the apparatus, processes the succeeding negative area.

In one preferred form of the invention a signal means is associated with the actuating means for the advancing rollers 24 so that the operator of the device may know that an unexposed frame of photo-sensitive sheet is in position in the focal plane of the camera and may then operate the shutter mechanism. It is also contemplated to have the shutter mechanism and/or a light source operated automatically by means synchronized with the movement of the negative feed rolls 24. In this case the device might additionally include signalling means to indicate to the operator of the machine that the exposure has been completed so that he might then place another object in position to be copied.

In a preferred form of the invention the various elements of the apparatus are made of metal, wood or plastic. The feeding means 42 and container 40 are preferably formed of alkaline-inert materials such as stainless steel or polyvinyl butyral. The photosensitive sheet preferably comprises a paper-backed commercial emulsion of the silver chloride or silver bromide type. The receiving sheet preferably comprises a baryta paper, while the liquid preferably comprises an alkaline aqueous solution of a developer, a silver halide solvent and a polymeric film-forming material, the liquid preferably having a high viscosity.

In the use of the device in Fig. 1, a roll of photosensitive sheet material 33 is placed in the positioning means 18, the photosensitive sheet being placed in front of the backing plate 26, threaded through the rolls 24, through rolls 22, through a light-tight opening 34, through rolls 32 and the end thereof is secured to the take-up spool 30. A roll of positive image sheet is then mounted in the positioning means 20 by moving

one of the walls of the top portion of the housing 16. This sheet is fed between rolls 22, through the light-tight opening 34, between rolls 32 and out through light-tight opening 36. These operations may be accomplished by suitably hingeably mounting the various walls or portions of the apparatus. During placing of the various sheet materials within the camera, the valve 50 is preferably kept closed.

After the camera housing has been made light-tight, the feed rolls are operated to bring an unexposed frame of the photosensitive material into the focal plane of the camera. The valve 50 is then opened to permit the liquid 39 to flow into the space defined by the two sheets 33 and 35, two seals 48, and the end walls 56, thus forming a confined body of the liquid. After exposure, the propelling rolls are actuated to draw the two sheets through the processing rolls 22 for the purpose of withdrawing from the body of liquid a uniform layer thereof between sheets 33 and 35. If a large number of copies of various pictures or letters are to be made, the machine may run continuously, the processing being accomplished at a predetermined continuous rate. The exposure is accomplished intermittently, successive frames of photosensitive material being brought into the focal plane of the camera, exposed, and then moved out of the focal plane of the camera by means of the intermittently driven rolls 24. As the processing continues, the processed positive sheet 35 is fed out of the apparatus through the light-tight opening 38, this ejection of the finished print being assisted if necessary by another pair of feed rolls 76 positioned adjacent light seal 36. The processed negative is rolled up on spool 30 for subsequent use or disposal as desired.

It can be seen that the above apparatus permits the rapid processing of a number of sequentially exposed photosensitive frames and is particularly advantageous when large numbers of copies of various images are to be made. The exposure of the photosensitive sheet to the image being copied can be automatic as explained above, or can be manually accomplished. In either case a preferred modification of the invention includes an alarm system of some kind (which may be the flashing of the exposure light) to indicate to the operator of the machine that exposure can be, or has been, made.

If a single picture is to be made and the machine is not to be used again for some time, the single positive, which would exist between rear wall 14 and the partition 28, may be separated from the negative by opening the rear wall 14 after the development of the positive is complete. The severing of the positive sheet 35 from the remainder of sheet 35 is accomplished by tearing it, by means of a knife blade indicated schematically at 38. In order that the severed edge of the next positive image may be ejected through the light-tight opening 36, a stripping member 78 may be provided on the lower wall 10 of the housing adjacent the opening 36 to separate this edge from the negative sheet 32 and to guide it through the opening 36.

If only one image is to be made, the valve 53 may be operated by switch 71 to eject a single glob of liquid into the confined space so that after this picture has been copied no liquid will exist adjacent the exterior of valve 50.

The apparatus described in Fig. 1 may be considerably modified without departing from the scope of the invention. For example, the pres-

sure rolls 22 may be formed of a nonresilient material such as stainless steel. In this case they may be resiliently mounted or fixedly mounted with their spacing being adjustable to give a desired liquid-receiving space between two sheets passing between the rolls. In lieu of rolls as the superimposing means, there may be provided other superimposing surfaces such as curved plates or bars which are nonrotatable. Equally, the plane of superimposition of the two sheets may be varied from the vertical shown. It can, for example, be horizontal or can extend upwardly, such as would be the case if the camera of Fig. 1 were inverted.

Also the method of exposure may be considerably modified and the device can be adapted for contact exposure for making copies, say of microfilm, in which case the photosensitive sheet 33 may be fed in contact with, and in synchronism with, a strip of microfilm, past a suitable light source. In this case, the drive rolls 24 could, if desired, be continuously operated. Equally, the drive rolls 24 may comprise other film-advancing means such as sprockets or reciprocating teeth. The space adapted to take care of the loop 32a may be made considerably larger so that a number of exposed areas may be maintained therein. This feature of the invention is desirable in those cases where it is preferred to run the film-advancing means at a much faster rate than the processing means. With such a modification of the invention the film-advancing means 24 may be separately driven from the processing rolls 22 so that these latter rolls may be operated to process the exposed film after the exposure thereof has ceased. With such a modification of the invention a switch 54 may be advantageously positioned adjacent a line extending from between the advancing rolls 24 to the top of the right-hand roll 22, this switch being preferably adapted to control the operation of rolls 22. Thus, when nearly all of the film in the loop 32a is processed, the film is pulled tight between rolls 24 and 22, thereby actuating the switch to stop the rotation of rolls 22 and/or 32.

In connection with the modification shown in Figs. 1 and 2, considerable changes may be made therein without departing from the scope of the invention. For example, the two sheets may be discharged out of the apparatus directly after lamination in those cases where each of the sheets includes a light-opaque stratum. Equally, other means for applying pressure to the processing liquid may be employed, for example a weight, spring pressure or a pump may be employed to maintain the liquid in the reservoir or feeding means under pressure, or gravity may be used, particularly where the viscosity of the liquid is not too high with relation to the passages through which it travels to the sheets.

When a positive silver image is to be made with the above-described apparatus, the photosensitive layer is preferably a silver halide, and in particular a silver bromide or chloride when the apparatus is used for photocopying. In such a case the image-carrying layer may comprise a sheet of baryta paper and the liquid may contain the ingredients listed in the following example:

Example 1

1860 cc. of water
93 grams of sodium carboxymethyl cellulose
73 grams of sodium sulfate
75 74.6 grams of sodium hydroxide

14.5 grams of sodium thiosulfate
38.5 grams of citric acid
52 grams of hydroquinone

While a preferred processing liquid and process has been described, numerous other modifications thereof are feasible. The liquid may comprise only a portion of the reactive ingredients and other portions thereof may be included in solid form in one or both of the two sheets. Equally, the process may comprise only the development, or development and fixation, of the negative. Similarly, other photosensitive materials such as diazonium compounds, ferric salts, dichromated colloids, etc., may be employed, the liquid being capable of accomplishing a predetermined processing thereof.

When a diazonium photosensitive material is employed the photosensitive layer may be formed by dipping a sheet of paper into a saturated water solution of Du Pont Naphthanil Diazo Black B. The liquid 29, in this case, comprises a mixture including 1500 cc. of a 5% water solution of sodium carboxymethyl cellulose to which 10 grams of resorcinol and 1 gram of sodium hydroxide have been added.

Since certain changes may be made in the above apparatus 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 apparatus for exposing a photosensitive sheet and accomplishing a predetermined processing of said exposed photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, superimposing means comprising a pair of surfaces between which and with respect to which said sheets are adapted to move in superimposed relation with a liquid-receiving space therebetween, means providing at least an exposure area for exposure of said photosensitive sheet at some point in its passage from said supply to said superimposing means, sealing means engaging those surfaces of said two sheets between and in contact with which said liquid layer is to be provided, said sealing means forming substantially liquid-tight seals with said engaged surfaces of said sheets and defining with said sheets an enclosed space communicating with said liquid-receiving space between said sheets, said liquid-receiving space constituting the normal discharge passage for liquid confined within said enclosed space, and means for supplying said processing liquid to said enclosed space.

2. A photographic apparatus for exposing a photosensitive sheet and accomplishing a predetermined processing of said exposed photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, means for guiding

said two sheets from their respective supplies to a position where said sheets are in superimposed relation, means providing at least an exposure area for exposure of said photosensitive sheet at some point in its passage from said supply to said position where said sheets are in superimposed relation, sealing means bearing on those surfaces of said two sheets between and in contact with which said liquid layer is to be provided as they are brought into superimposed relation, said guiding means bearing on the other surfaces of said two sheets as said two sheets are brought into superimposed relation, said guiding means comprising a pair of converging surfaces between which said sheets are adapted to be advanced in superimposed relation with a liquid-receiving space therebetween, said sealing means cooperating with said two first-named surfaces of said sheets to form a liquid-tight seal and defining an enclosed space within which said liquid may be confined, and means for filling said space with a body of said liquid, said sealing means confining said body of liquid to contact only with said first-named surfaces of said sheets in position to be supplied in a thin layer to said liquid-receiving space between said superimposed sheets as said sheets move with respect to said body of liquid.

3. A photographic apparatus for exposing a photosensitive sheet and accomplishing a predetermined processing of said exposed photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, means for guiding said two sheets from their respective supplies to a position where said sheets are in superimposed relation, means providing at least an exposure area for exposure of said photosensitive sheet at some point in its passage from said supply to said position where said sheets are in superimposed relation, sealing means bearing on those surfaces of said two sheets between and in contact with which said liquid layer is to be provided as they are brought into superimposed relation, said guiding means bearing on the other surfaces of said two sheets as said two sheets are brought into superimposed relation, said guiding means comprising a pair of converging surfaces between which said sheets are adapted to be advanced in superimposed relation with a liquid-receiving space therebetween, said sealing means cooperating with said two first-named surfaces of said sheets to form a liquid-tight seal and defining an enclosed space within which said liquid may be confined, means for filling said space with a body of said liquid, said sealing means confining said body of liquid to contact only with said first-named surfaces of said sheets in position to be supplied in a thin layer to said liquid-receiving space between said superimposed sheets as said sheets move with respect to said body of liquid, and means for separating said other sheet from said photosensitive sheet after processing and for discharging said other sheet from said apparatus.

4. A photographic apparatus for exposing a photosensitive sheet and accomplishing a predetermined processing of said exposed photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof,

by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, means for guiding said two sheets from their respective supplies to a position where said sheets are in superimposed relation, means providing an exposure area for exposure of said photosensitive sheet at some point in its passage from said supply to said position where said sheets are in superimposed relation, sealing means engaging and forming a liquid-tight seal with that surface of at least one of said sheets adjacent which said layer of liquid is to be formed, said sealing means including one portion which forms a transverse seal with said engaged sheet and other portions which form marginal seals with the two marginal portions of said engaged sheet, said margin-sealing portions extending substantially to the point of superimposition of said two sheets, and means for feeding a predetermined quantity of said liquid to at least that surface of said sheet with which said sealing means forms said transverse seal, said feeding means being positioned to feed said liquid to that portion of said surface between said transverse seal and that portion of said guiding means which brings said two sheets into superimposed relation.

5. A photographic apparatus for exposing a photosensitive sheet and accomplishing a predetermined processing of said exposed photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, means for advancing said two sheets from their respective supplies, means for superimposing said two sheets as they are advanced, said superimposing means comprising a pair of surfaces between which and with respect to which said sheets are adapted to move in superimposed relation with a liquid-receiving space therebetween, means providing an exposure area for exposure of said photosensitive sheet at some point in its passage from said supply to said superimposing means, sealing means engaging those surfaces of said two sheets between and in contact with which said liquid layer is to be provided, said sealing means forming substantially liquid-tight seals with said engaged surfaces of said sheets and defining with said sheets an enclosed space communicating with said liquid-receiving space between said sheets, said liquid-receiving space constituting the normal discharge passage for liquid confined within said enclosed space, and means for supplying said processing liquid to said enclosed space.

6. A photographic apparatus for exposing a photosensitive sheet, which sheet includes a surface stratum of a photosensitive silver halide, and for producing a positive silver image of the subject image, to which said photosensitive sheet is exposed, by bonding said photosensitive sheet to an image-carrying sheet with a liquid comprising a viscous alkaline aqueous solution of a developer and a silver halide solvent, said apparatus comprising means for positioning a supply of said photosensitive sheet and a supply of said image-carrying sheet, means for guiding said two sheets from their respective supplies to a position where

said sheets are in superimposed relation with said silver halide surface stratum adjacent that surface of said image-carrying sheet on which said positive image is to be formed, said guiding means including a pair of converging surfaces, the point of closest convergence of said guiding surfaces constituting the point of superimposition of said sheets, means for exposing said photosensitive sheet at some point in its passage from said supply to said portion of said guiding means which acts to superimpose said sheets, sealing means engaging those surfaces of said two sheets to be bonded together and defining an enclosed space adjacent the point of superimposition of said two sheets, and means for filling said space with a body of said liquid, said sealing means forming a liquid-tight seal with said surfaces of said sheets and confining said body of liquid to contact only with said surfaces of said sheets in position to be withdrawn in a thin layer between said sheets as said sheets move with respect to said body of liquid, portions of said sealing means which engage the marginal portions of said two sheets extending substantially to the point of closest convergence of said guiding surfaces, said sealing means assisting in preventing oxidation of liquid within said space.

7. A photographic apparatus for accomplishing a predetermined processing of a photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, superimposing means comprising a pair of surfaces between which and with respect to which said sheets are adapted to move in superimposed relation with a liquid-receiving space therebetween, sealing means engaging those surfaces of said two sheets between and in contact with which said liquid layer is to be provided, said sealing means forming substantially liquid-tight seals with said engaged surfaces of said sheets and defining with said sheets an enclosed space communicating with said liquid-receiving space between said sheets, said liquid-receiving space constituting the normal discharge passage for liquid confined within said enclosed space, and means for supplying said processing liquid to said enclosed space, said liquid supply means and said sealing means, together with said sheets, forming a substantially completely enclosed space in which said liquid can be confined under pressure until removed through said liquid-receiving space.

8. A photographic apparatus for accomplishing a predetermined processing of a photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, superimposing means comprising a pair of surfaces between which and with respect to which said sheets are adapted to move in superimposed relation with a liquid-receiving space therebetween, sealing means engaging those surfaces of said two sheets between and in contact with which said liquid layer is to be provided, said sealing means forming substantially liquid-tight seals with said engaged surfaces of said sheets

and defining with said sheets a liquid-holding space communicating with said liquid-receiving space between said sheets, said liquid-receiving space constituting the normal discharge passage for liquid confined within said liquid-holding space, and means for supplying said processing liquid to said liquid-holding space, said sealing means forming marginal seals with said engaged surfaces of said two sheets, said marginal seals extending substantially to the point of superimposition of said two sheets, said liquid-feeding means being positioned to feed said liquid to said sheets between said marginal seals, said superimposing means being arranged to move said sheets from said supplies to a position where said sheets are in superimposed relation.

9. A photographic apparatus for accomplishing a predetermined processing of a photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, means for advancing said two sheets from their respective supplies to a position where said sheets are in superimposed relation, sealing means forming liquid-tight seals with those surfaces of said two sheets between and in contact with which said liquid layer is to be provided, guiding means bearing on the other surfaces of said two sheets as said two sheets are brought into superimposed relation, said guiding means comprising a pair of curved converging surfaces between which said sheets are adapted to be advanced in superimposed relation with a liquid-receiving space therebetween, said sealing means engaging said first-mentioned surfaces of said sheets where said guiding means engage marginal portions of said other surfaces of said sheets, said sealing means and said guiding means defining a liquid-holding space within which said sheets are superimposed, and means for supplying a body of said liquid to said liquid-holding space, said sealing means confining said body of liquid to contact only with said first-mentioned surfaces of said sheets in position to be supplied in a thin layer to said liquid-receiving space between said superimposed sheets as said sheets move with respect to said body of liquid, said sheets extending between said sealing means and said guiding means and preventing contact of said liquid with said guiding means, said sealing means including marginal seal means having curved sheet-engaging surfaces substantially matching the curvature of said curved converging guiding surfaces, said marginal seal means tapering to a point adjacent the point of convergence of said curved surfaces, said sheet-engaging surfaces on said marginal seal means being radially spaced from their respective guiding surfaces by an amount substantially equal to the thickness of the sheets passing between said respective surfaces.

10. A photographic apparatus for accomplishing a predetermined processing of a photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, means for guiding said two sheets from

their respective supplies to a position where said sheets are in superimposed relation, sealing means bearing on those surfaces of said two sheets between and in contact with which said liquid layer is to be provided as they are brought into superimposed relation, said guiding means bearing on the other surfaces of said two sheets as said two sheets are brought into superimposed relation, said guiding means comprising a pair of surfaces between which said sheets are adapted to be advanced in superimposed relation with a liquid-receiving space therebetween, said sealing means engaging said two first-named surfaces of said sheets to form a liquid-tight seal therewith, and means for feeding a body of said liquid to at least one of said sheets, said sealing means forming marginal seals with said engaged surfaces of said two sheets, said marginal seals extending substantially to the point of superimposition of said two sheets, said liquid-feeding means being positioned to feed said liquid to said sheet between said marginal seals, said sealing means confining said body of liquid to contact only with said first-named surfaces of said sheets in position to be supplied in a thin layer to said liquid-receiving space between said superimposed sheets as said sheets move with respect to said body of liquid.

11. A photographic apparatus for accomplishing a predetermined processing of a photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, means for guiding said two sheets from their respective supplies to a position where said sheets are in superimposed relation, sealing means engaging and forming a liquid-tight seal with that surface of at least one of said sheets adjacent which said layer of liquid is to be formed, said sealing means including one portion which forms a transverse seal with said engaged sheet and other portions which form marginal seals with the two marginal portions of said engaged sheet, said marginal-sealing portions extending substantially to the point of superimposition of said two sheets, and means for feeding a predetermined quantity of said liquid to at least that surface of said sheet with which said sealing means forms said seal, said feeding means being positioned to feed said liquid to that portion of said surface between said transverse seal and that portion of said guiding means which brings said two sheets into superimposed relation, said marginal sealing portions of said sealing means forming seals with the margins of both sheets adjacent the point of superimposition of said sheets.

12. A photographic apparatus for accomplishing a predetermined processing of a photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, means for intermittently advancing said photosensitive sheet past a means providing at least an exposure area for exposure of said photosensitive sheet, means for continuously advancing said exposed photosensitive sheet and

said other sheet, means for guiding said sheets into superimposed relation, said photosensitive stratum being adjacent said other sheet, sealing means engaging and forming a liquid-tight seal with that surface of at least one of said sheets adjacent which said layer of liquid is to be formed, said sealing means forming transverse and marginal seals with said engaged sheet, said transverse seal being spaced from the point of superimposition of said sheets and said marginal seals extending from said transverse seal substantially to said point of superimposition of said two sheets, means for feeding a predetermined quantity of processing liquid to at least that surface of said sheet with which said sealing means forms said seal, said feeding means being positioned to feed said liquid to that portion of said surface between said transverse seal and that portion of said guiding means which brings said two sheets into superimposed relation, and means rendering said liquid-feeding means operative upon operation of said second-named advancing means.

13. A photographic apparatus for processing a photographically exposed photosensitive sheet comprising, in combination, superimposing means between portions of which said sheet and another sheet are adapted to be positioned in superimposed relationship, a portion of said superimposing means being adapted to apply a compression to said sheets as they are moved with respect to said portion so as to predeterminedly space inner surfaces of said sheets to control the thickness of a layer of liquid to be created between said sheets, means comprising a liquid dispenser for holding out of contact with said sheets a supply of processing liquid sufficient for processing a plurality of frames of exposed photosensitive sheet and capable of intermittently dispensing predetermined quantities of said liquid to said sheets, each of said quantities being adapted to processing of a single frame of said photosensitive sheet, said dispenser being provided with outlet means extending transversely of said sheets and having a dimension transverse of said sheets which is substantially equal to the transverse dimension of the area of said photosensitive sheet to be processed by said liquid so that each of said predetermined quantities of liquid may be brought into contact with an area of said sheets having one dimension substantially equal to, and another dimension which is smaller than the area of said sheets ultimately to be covered by said quantity of liquid, and means for positioning said sheets relative to said compression-applying portion of said superimposing means so that portions of said sheets adjacent other portions positioned in face-to-face relationship contiguous said compression-applying portion are maintained in converging spaced relation to one another prior to being subjected to said compression-applying portion, said spaced portions being adapted to receive said dimensionally limited quantity of liquid therebetween from said liquid dispenser and to be compressed upon movement with respect to said compression-applying portion, said compression-applying portion providing spreading of said liquid between and in contact with interface areas of said sheets.

14. A photographic apparatus for processing a photographically exposed photosensitive sheet comprising, in combination, superimposing means between portions of which said sheet and another sheet are adapted to be positioned in

superimposed relationship, a portion of said superimposing means being adapted to apply a compression to said sheets as they are moved with respect to said portion, means comprising a liquid dispenser for holding out of contact with said sheets a supply of processing liquid sufficient for processing a plurality of frames of exposed photosensitive sheet and capable of intermittently dispensing predetermined quantities of said liquid to said sheets, each of said quantities being adapted to processing of a single frame of said photosensitive sheet, said dispenser being provided with outlet means extending transversely of said sheets and having a dimension transverse of said sheets which is substantially equal to the transverse dimension of the area of said photosensitive sheet to be processed by said liquid so that each of said predetermined quantities of liquid may be brought into contact with an area of said sheets having one dimension substantially equal to, and another dimension which is smaller than the area of said sheets ultimately to be covered by said quantity of liquid, and means for so mounting a roll of said photosensitive sheet and for so separately mounting a roll of said other sheet relative to said compression-applying portion that said sheets are adapted to be advanced to face-to-face contiguous relation between said compression-applying portion, said relative mounting of said rolls providing converging spaced areas of said sheets for receiving said dimensionally limited quantity of liquid therebetween from said liquid dispenser and to be compressed upon movement with respect to said compression-applying portion, said compression-applying portion providing spreading of said liquid between and in contact with interface areas of said sheets.

15. A photographic apparatus for accomplishing a predetermined processing of a photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, means for advancing said two sheets from their respective supplies to a position where said sheets are in superimposed relation, sealing means forming liquid-tight seals with those surfaces of said two sheets between and in contact with which said liquid layer is to be provided, guiding means bearing on the other surfaces of said two sheets as said two sheets are brought into superimposed relation, said guiding means comprising a pair of surfaces between which said sheets are adapted to be advanced in superimposed relation with a liquid-receiving space therebetween, said sealing means engaging said first-mentioned surfaces of said sheets where said guiding means engage said other surfaces of said sheets, said sealing means and said guiding means defining an enclosed space within which said sheets are superimposed, means for supplying a body of said liquid to said enclosed space, said sealing means confining said body of liquid to contact only with said first-mentioned surfaces of said sheets in position to be supplied in a thin layer to said liquid-receiving space between said superimposed sheets as said sheets move with respect to said body of liquid, said sheets extending between said sealing means and said guiding means and preventing contact of said liquid with said guiding

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means, and control means associated with said liquid-supplying means adapted to permit said supplying means to feed a predetermined quantity of liquid to said enclosed space and to then render said supplying means inoperative to cause a further feed of liquid, said control means being adapted to cause a second feed of liquid upon movement adjacent said feeding means of an area of said sheet succeeding that area of said sheet covered by previously fed liquid in said space.

16. A photographic apparatus for accomplishing a predetermined processing of a photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, superimposing means with respect to which said sheets are adapted to move in superimposed relation with a liquid-receiving space therebetween, and means for feeding a predetermined quantity of processing liquid in the form of a body to said sheets as said sheets are brought into superimposed position, said feeding means comprising a first sealing means adapted to form a seal with said photosensitive sheet, a second sealing means adapted to form a seal with said other sheet, margin sealing means forming marginal seals with both said sheets, a first member serving as a backing for said photosensitive sheet adjacent said first sealing means and a second member serving as a backing for said other sheet adjacent said second sealing means, said sealing means engaging those surfaces of said two sheets between and in contact with which said liquid layer is to be provided, said sealing means forming substantially liquid-tight seals with said engaged surfaces of said sheets and defining with said sheets an enclosed space communicating with said liquid-receiving space between said sheets, said liquid-receiving space constituting the normal discharge passage for liquid confined within said enclosed space.

17. A photographic apparatus for accomplishing a predetermined processing of a photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, means for intermittently advancing said photosensitive sheet past a means providing at least an exposure area for exposure of said photosensitive sheet, means for continuously advancing said exposed photosensitive sheet and said other sheet, means for guiding said sheets into superimposed relation, said photosensitive stratum being adjacent said other sheet, sealing means engaging and forming a liquid-tight seal with that surface of at least one of said sheets adjacent which said layer of liquid is to be formed, said sealing means including portions forming substantially liquid-tight seals with the margins of said engaged sheet, said portions of said sealing means forming marginal seals with both said sheets adjacent the point of superimposition of said sheets, and means for feeding a predetermined quantity of processing liquid to at least that surface of said sheet with which said sealing means forms said seal, said feeding means

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being positioned to feed said liquid to that portion of said engaged surface between said marginal seals adjacent that portion of said guiding means which brings said two sheets into superimposed relation.

18. A photographic apparatus for accomplishing a predetermined processing of a photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, superimposing means with respect to which said sheets are adapted to move in superimposed relation with a liquid-receiving space therebetween, and means for feeding a predetermined quantity of processing liquid in the form of a body to said sheets as said sheets are brought into superimposed position, said feeding means comprising a first sealing means adapted to form a seal with said photosensitive sheet, a second sealing means adapted to form a seal with said other sheet, margin sealing means forming marginal seals with both said sheets, a first member serving as a backing for said photosensitive sheet adjacent said first sealing means and a second member serving as a backing for said other sheet adjacent said second sealing means, said sealing means engaging those surfaces of said two sheets between and in contact with which said liquid layer is to be provided, said sealing means forming substantially liquid-tight seals with said engaged surfaces of said sheets and defining with said sheets an enclosed space communicating with said liquid-receiving space between said sheets, said liquid-receiving space constituting the normal discharge passage for liquid confined within said enclosed space, said superimposing means comprising portions of said two members, said sealing means forming with said sheets a substantially completely enclosed space in which said liquid can be confined under pressure until removed through said liquid-receiving space.

19. A photographic apparatus for accomplishing a predetermined processing of a photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, superimposing means with respect to which said sheets are adapted to move in superimposed relation with a liquid-receiving space therebetween, and means for feeding a predetermined quantity of processing liquid in the form of a body to said sheets as said sheets are brought into superimposed position, said feeding means comprising a first sealing means adapted to form a seal with said photosensitive sheet, a second sealing means adapted to form a seal with said other sheet, margin sealing means forming marginal seals with both said sheets, a first member serving as a backing for said photosensitive sheet adjacent said first sealing means and a second member serving as a backing for said other sheet adjacent said second sealing means, said sealing means engaging those surfaces of said two sheets between and in contact with which said liquid layer is to be provided, said sealing means forming substantially liquid-tight seals with said engaged surfaces of said sheets and defining with

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said sheets an enclosed space communicating with said liquid-receiving space between said sheets, said liquid-receiving space constituting the normal discharge passage for liquid confined within said enclosed space, said superimposing means comprising portions of said two members,

20. A photographic apparatus for accomplishing a predetermined processing of a photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, superimposing means with respect to which said sheets are adapted to move in superimposed relation with a liquid-receiving space therebetween, and means for feeding a predetermined quantity of processing liquid in the form of a body to said sheets as said sheets are brought into superimposed position, said feeding means comprising a first sealing means adapted to form a seal with said photosensitive sheet, a second sealing means adapted to form a seal with said other sheet, margin sealing means forming marginal seals with both said sheets, a first member serving as a backing for said photosensitive sheet adjacent said first sealing means and a second member serving as a backing for said other sheet adjacent said second sealing means, said sealing means engaging those surfaces of said two sheets between and in contact with which said liquid layer is to be provided, said sealing means forming substantially liquid-tight seals with said engaged surfaces of said sheets and defining with said sheets an enclosed space communicating with said liquid-receiving space between said sheets, said liquid-receiving space constituting the normal discharge passage for liquid confined within said enclosed space, said two members comprising rolls, said rolls acting as said means for superimposing said two sheets.

21. Camera apparatus for photographically exposing a plurality of frames of photosensitive sheet and for subjecting each exposed frame of said sheet to a predetermined processing comprising, in combination, casing means for enclosing elements of said apparatus, framing means for positioning said sheet for photographic exposure, means for photographically exposing said sheet, a superimposing means including a pair of pressure-applying members mounted adjacent that end of said framing means from which said sheet is adapted to advancement after exposure, said pressure-applying members comprising portions between which said sheet and another sheet are adapted to be positioned, in superimposed relationship, advanced, and subjected to compression, means for mounting a roll of unexposed photosensitive sheet adjacent that end of said framing means which is opposite the aforesaid end thereof, means for mounting a roll of said other sheet adjacent said pressure-applying members, means comprising a liquid dispenser normally holding a supply of sheet processing liquid, sufficient for processing a plurality of frames of exposed sheet, out of contact with said sheets and adapted to dispense said liquid to said sheets, said dispenser comprising a liquid outlet extending transversely of said sheets and having a dimension transverse of said sheets which is substantially equal to the transverse dimension of the area of said sheets to be covered by said

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liquid, means for actuating said dispenser means for dispensing said liquid therefrom, and means forming a light-tight chamber for holding said compressed sheets therewithin for a predetermined period, to complete processing of said sheet, said last-named means including means providing access to said chamber for removal of sheets therefrom.

22. A photographic apparatus for exposing a photosensitive sheet and accomplishing a predetermined processing of said exposed photosensitive sheet, which sheet includes a layer of photosensitive material at least as a stratum thereof, by providing between said sheet and another sheet a layer of liquid capable of accomplishing said processing, said apparatus comprising means for positioning a supply of said photosensitive sheet, means for positioning a supply of said other sheet, superimposing means comprising a pair of surfaces between which and with respect to which said sheets are adapted to move in superimposed relation with a liquid-receiving space therebetween, means providing at least an exposure area for exposure of said photosensitive sheet at some point in its passage from said supply to said superimposing means, said superimposing means comprising a pair of pressure rolls mounted with their axes parallel, said means for positioning said two supplies of sheets being arranged so that one of said sheets passes partially around one of said rolls and the other of said sheets passes partially around the other of said rolls and both of said sheets pass between said rolls, liquid-feeding means positioned adjacent said two rolls so as to feed said liquid to facing surfaces of said two sheets as said sheets pass between said rolls, said liquid-feeding means having a pair of curved liquid-sealing surfaces substantially matching the curvature of said rolls, said sealing surfaces engaging said facing surfaces of said sheets as they pass around said rolls, said sealing surfaces having long dimensions parallel to said roll axes at least as great as the width of said sheets to be covered by said liquid layer, said sealing surfaces being spaced apart to permit passage of liquid to said liquid-receiving space between said sheets, margin-sealing surfaces associated with said liquid-feeding means adjacent the ends of said pair of rolls and constituting arcuate continuations of said first-named sealing surfaces, said margin-sealing surfaces extending arcuately further between said rolls than said first-named sealing surfaces, and means for supplying said processing liquid to the space defined by said rolls and said sealing surfaces.

23. Camera apparatus for photographically exposing a plurality of frames of photosensitive sheet and for subjecting each exposed frame of said sheet to a predetermined processing comprising, in combination, casing means for enclosing elements of said apparatus, framing means for positioning said sheet for photographic exposure, means for photographically exposing said sheet, a superimposing means including a pair of pressure-applying members, said pressure-applying members comprising portions between which said sheet and another sheet are adapted to be positioned, in superimposed relationship, advanced, and subjected to compression, means for mounting a roll of unexposed photosensitive sheet, means for mounting a roll of said other sheet, means comprising a liquid dispenser normally holding a supply of sheet-processing liquid, sufficient for processing a plurality of frames of exposed sheet, out of contact with said sheets and

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adapted to dispense said liquid to said sheets, said dispenser comprising a liquid outlet extending transversely of said sheets and having a dimension transverse of said sheets which is substantially equal to the transverse dimension of the area of said sheets to be covered by said liquid, means for actuating said dispenser means for dispensing said liquid therefrom, and means forming a light-tight chamber for holding said compressed sheets therewithin for a predetermined period to complete processing of said sheet, said last-named means including means providing access to said chamber for removal of sheets therefrom,

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said two rolls of sheet being so arranged that said photosensitive sheet may be fed from its roll, exposed and brought into superimposed relation with said other sheet after exposure.

EDWIN H. LAND.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
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