

Nov. 6, 1962

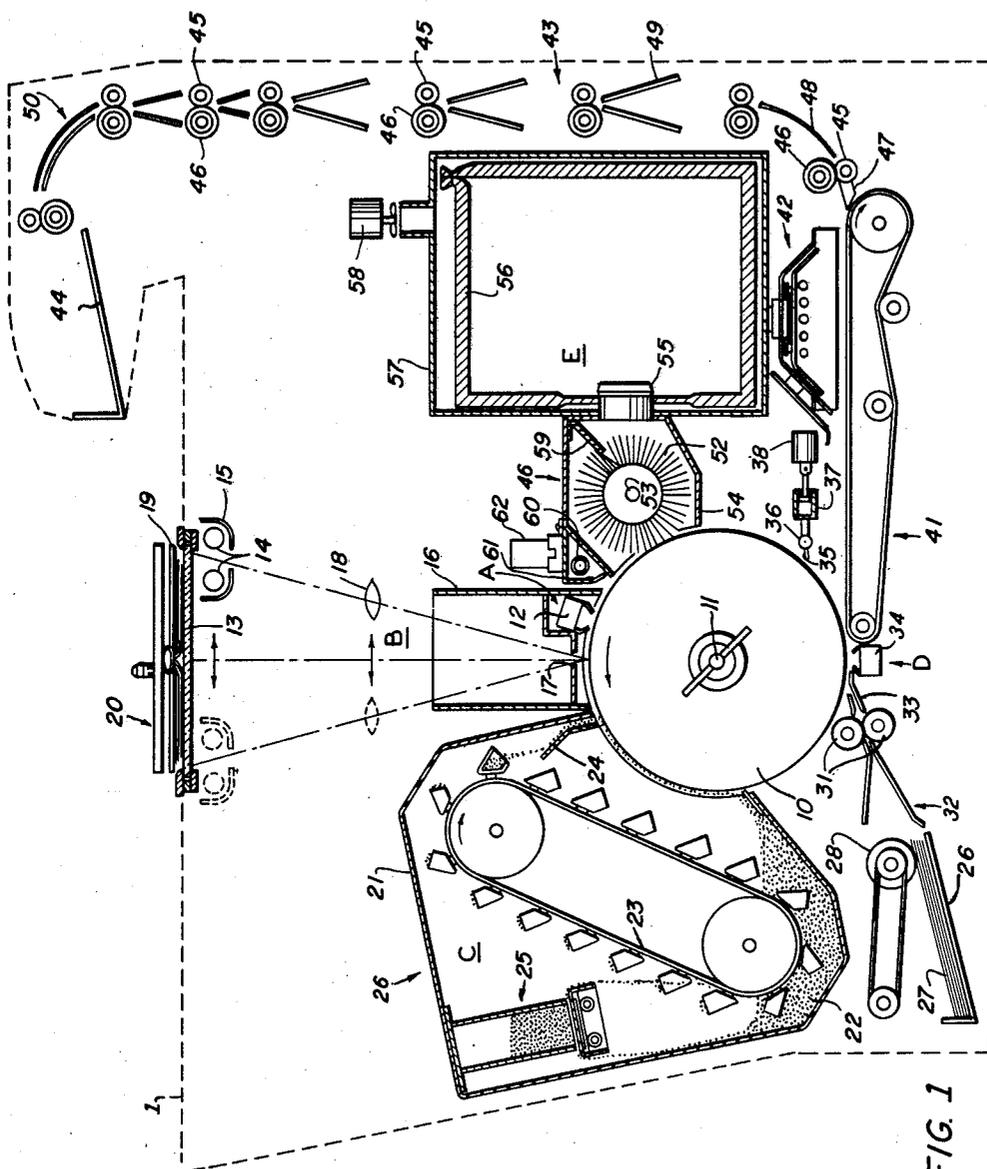
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3,062,110

EXPOSURE STATION APPARATUS

Filed July 2, 1959

3 Sheets-Sheet 1



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3 Sheets-Sheet 2

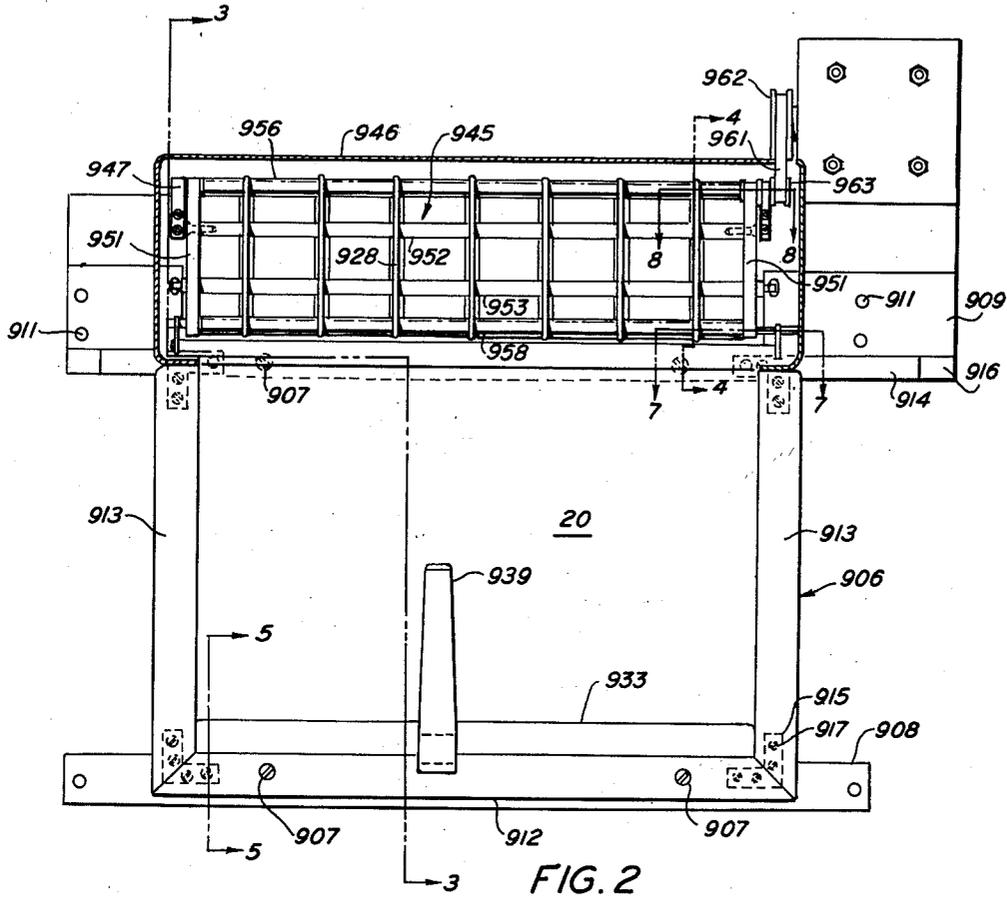


FIG. 2

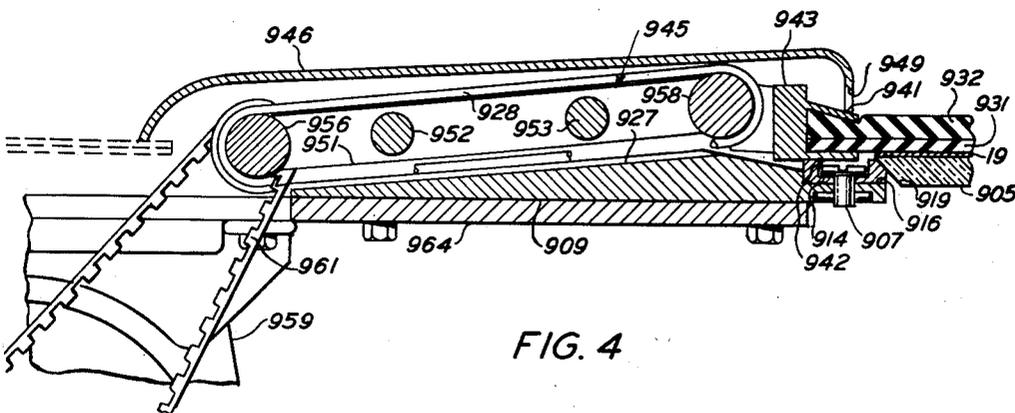


FIG. 4

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3 Sheets-Sheet 3

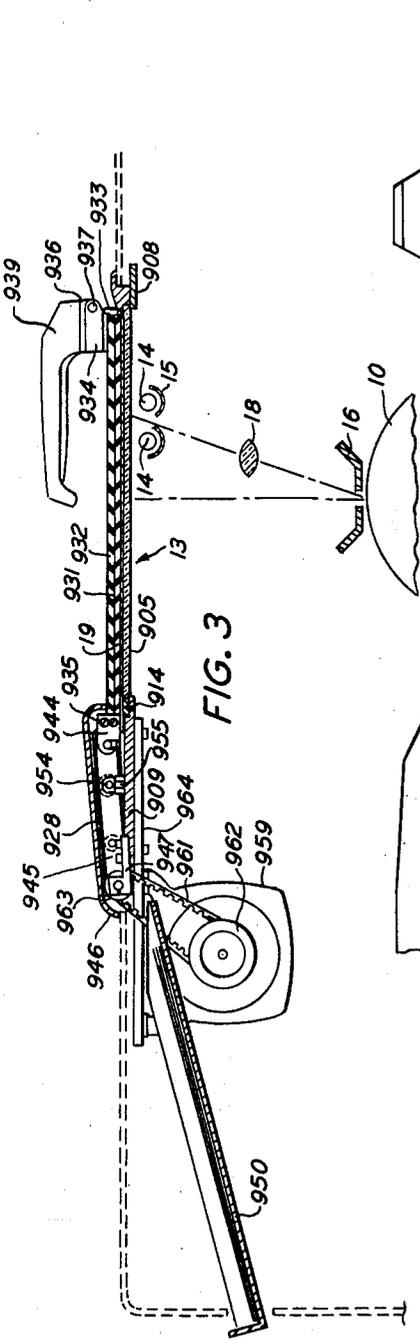


FIG. 3

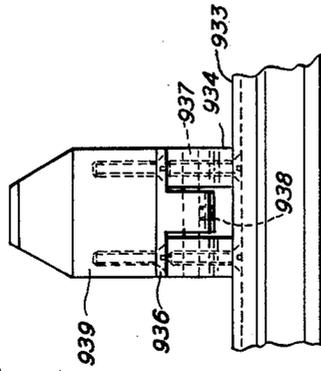


FIG. 6

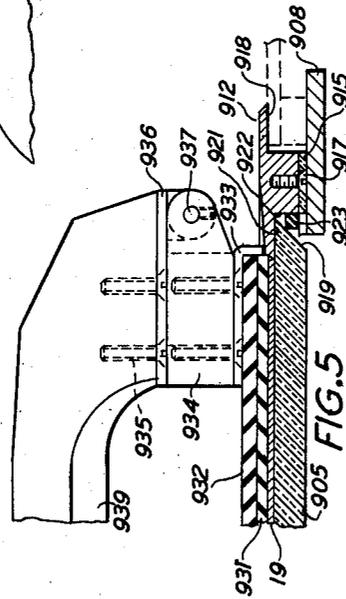


FIG. 5

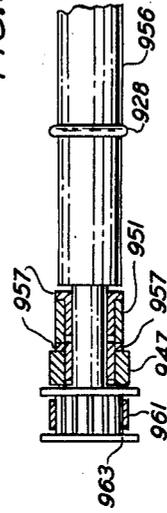


FIG. 8

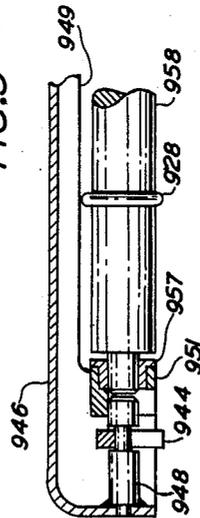


FIG. 7

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3,062,110

**EXPOSURE STATION APPARATUS**

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Filed July 2, 1959, Ser. No. 824,656  
5 Claims. (Cl. 95—1.7)

This invention relates to the field of xerography and, particularly, to an improved platen cover and copy conveyor for use in a xerographic copier-duplicator.

More specifically, the invention relates to an improved platen cover which is double-hinged and made of flexible material to enable it when in a closed position over a copy platen to lie in a substantially horizontal plane over the copy platen regardless of the thickness of copy being reproduced. To enable copy to be readily removed from the copy platen the platen cover has incorporated therewith a copy conveyor.

In the process of xerography, for example, as disclosed in either Carlson Patent 2,297,691, issued October 6, 1942, or in Carlson Patent 2,357,809, issued September 12, 1944, a xerographic plate, comprising a layer of photoconductive insulating material on a conductive backing, is given a uniform electric charge over its surface and is then exposed to the subject matter to be reproduced, usually by conventional projection techniques. This exposure discharges plate areas in accordance with the light intensities that reach them and thereby creates an electrostatic image on or in the plate coating.

Development of the image is effected with developing material or developers which comprise, in general, a mixture of a suitable pigmented or dyed electroscopic powder, hereinafter referred to as toner, and a granular carrier material, which latter functions to carry and to generate triboelectric charges on the toner. More exactly, the function of the granular material is to provide the mechanical control to the powder, or to carry the powder to an image surface and, simultaneously, to provide almost complete homogeneity of charge polarity. In the development of the image, the toner powder is brought into surface contact with the coating on the xerographic plate and is held thereon electrostatically in a pattern corresponding to the electrostatic latent image previously formed thereon. Thereafter, the developed xerographic image is usually transferred to a support or transfer material to which it may be fixed by any suitable means.

In the xerographic copier-duplicator of the type disclosed in copending Mayo et al. application, Serial No. 824,500, filed concurrently herewith on July 2, 1959, there is provided a xerographic copying device capable of reproducing copy from a stationary copy positioned on a transparent platen over the optical system of the xerographic copier-duplicator.

Usually a xerographic copier-duplicator of the type described above, or for that matter any photographic copier of a stationary original, is designed to reproduce copy of a specific maximum size. Inherently these machines are capable of reproducing copy of a smaller size than the maximum size for which machines are designed. In any copying machine using a fixed platen, it is desirable to maintain the copy flat against the surface of the platen during the exposure cycle so as to prevent shadows being formed on the photosensitive surface and to keep the copy from curling up or otherwise being distorted in any manner. For this purpose there is generally used a platen cover which overlies the surface of the platen, the platen cover being constructed so that it can be readily removed to permit positioning

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a copy on the platen surface. A platen also serves a secondary service in that it prevents extraneous outside light from reaching the photosensitive surface of the copier-duplicator when using copy that does not fully cover the entire surface of the platen.

It is therefore an object of this invention to provide an improved platen cover that is readily removable for the insertion of copy on the platen surface, and which will at all times, regardless of the thickness of the copy being reproduced, remain substantially parallel when in a closed position with the platen surface.

It is a further object of the invention to provide an improved platen cover which has incorporated as a structural feature thereof a copy conveyor to permit quick removal of copy sheets from a copy platen.

These and other objects of the invention are attained by means of a double-hinged platen cover for copy placed on a transparent platen mounted in a platen frame on a copier-duplicator. The double-hinged platen cover includes a flexible sheet material secured at one end to a retainer member pivotally hinged to one end of a pivot frame which is also hinged at the same end to a pivot frame cover, the other end of the pivot frame being pivotally hinged to brackets which may be secured to the portion of the machine frame which supports the platen. The pivot frame in the preferred embodiment of the invention is also utilized to support the movable elements of an endless belt type conveyor for transporting copy from the platen to a suitable copy container.

For a better understanding of the invention, as well as other objects and further features thereof, reference is had to the following detailed description of a preferred embodiment of the invention to be read in connection with the accompanying drawings, wherein:

FIG. 1 illustrates schematically a preferred embodiment of a xerographic copier-duplicator adapted for continuous and automatic operation and incorporating a platen cover and copy conveyor in accordance with the invention;

FIG. 2 is a plan view of the platen cover, partially broken away to illustrate various elements of the device including the copy conveyor;

FIG. 3 is a detail vertical sectional view taken along lines 3—3 of FIG. 2 with portions of a xerographic copier-duplicator illustrated schematically to show the general arrangement of the elements;

FIG. 4 is an enlarged sectional view taken along lines 4—4 of FIG. 2;

FIG. 5 is an enlarged sectional view taken along lines 5—5 of FIG. 2;

FIG. 6 is an end view of the elements of FIG. 5;

FIG. 7 is an enlarged view partially in section taken along lines 7—7 of FIG. 2; and

FIG. 8 is an enlarged view partially in section taken along lines 8—8 of FIG. 2.

Referring now to FIG. 1, there is shown a xerographic processing machine used for producing xerographic reproductions from a stationary original, the original being either transparent, translucent or opaque copy, whether in the form of single sheets, books, or in three-dimensional form. To conform to modern office decor the xerographic apparatus schematically illustrated is adapted for installation in a suitable desk (shown in outline form), constructed so that an operator seated at the desk may conveniently control all operations of the apparatus.

As shown, the xerographic apparatus comprises a xerographic plate including a photoconductive layer or light-receiving surface on a conductive backing and formed in the shape of a drum, generally designated by numeral 10, which is mounted on a shaft 11 journaled in a frame

(not shown) to rotate in the direction indicated by the arrow to cause the drum surface sequentially to pass a plurality of xerographic processing stations.

For the purpose of the present disclosure, the several xerographic processing stations in the path of movement of the drum surface may be described functionally, as follows:

A charging station A, at which a uniform electrostatic charge is deposited on the photoconductive layer of the xerographic drum;

An exposure station B, at which a light or radiation pattern of copy to be reproduced is projected onto the drum surface to dissipate the drum charge in the exposed areas thereof and thereby form a latent electrostatic image of the copy to be reproduced;

A developing station C, at which a xerographic developing material including toner particles having an electrostatic charge opposite to that of the electrostatic latent image are cascaded over the drum surface, whereby the toner particles adhere to the electrostatic latent image to form a xerographic powder image in the configuration of the copy to be reproduced;

A transfer station D, at which the xerographic powder image is electrostatically transferred from the drum surface to a transfer material or support surface; and

A drum cleaning and discharge station E, at which the drum surface is brushed to remove residual toner particles remaining thereon after image transfer, and at which the drum surface is exposed to a relatively bright light source to effect substantially complete discharge of any residual electrostatic charge remaining thereon.

In general, the charging apparatus 12, which may be of the type disclosed in Vyverberg Patent 2,836,725, includes a corona discharge array of one or more corona discharge electrodes that extend transversely across the drum surface and are energized from a high potential source and are substantially enclosed within a shielding member.

Next subsequent thereto in the path of motion of the xerographic drum is an exposure station. This exposure station may be one of a number of types of mechanisms or members such as desirably an optical projection system or the like designed to project a line copy image onto the surface of the photoconductive xerographic drum from a stationary original. To permit substantially any type of original copy, including books, magazines and other types of cumbersome three-dimensional objects to be copied for the reproduction of specific information contained thereon, the optical projection system shown is of the type disclosed in copending Mayo application, Serial No. 783,388, filed December 29, 1958.

The optical projection system comprises a stationary copy board 13 which includes a transparent platen member or copy holder such as, for example, a glass plate or the like, positioned parallel to the top of the desk, which is adapted to support a master or original, such as book 19, placed face downward on its upper surface, the copy board being uniformly illuminated and arranged in light-projecting relation to the moving light-receiving surface of the xerographic drum 10. Uniform lighting is provided by a pair of lamps 14 attached to a slotted light reflector 15 mounted for movement to traverse the plane of the copy board.

A light shield 16 adapted to protect the xerographic drum from extraneous light is positioned adjacent the surface of the xerographic drum. A slot aperture 17 in the light shield 16 extends transversely to the path of movement of the light-receiving surface of the xerographic drum 10 to permit reflected rays from the copy board to be directed against a limited transverse area of the light-receiving surface as it passes therebeneath. As shown, the light shield 16 also encloses the corona charging device 12.

Lens element 18 positioned between the copy board and the light shield is arranged for movement in a path to traverse the plane of the copy board in timed relation to

the movement of light source 14, whereby the subject image of the original supported by the copy board is scanned in timed relation to the movement of the light-receiving surface of the xerographic drum to project a light image corresponding to the subject image onto the surface of the xerographic drum.

A platen cover, generally designated 20 and described in detail hereinafter, is positioned and adapted to prevent extraneous light from outside of the desk to pass through the transparent platen, to cover the platen when not in use to prevent dust and dirt from collecting thereon, and to hold any document or other material to be reproduced lightly and in a flat position on the platen.

Adjacent to the exposure station is a developing station in which there is positioned a developer housing 21 including a lower or sump portion for accumulating developing material 22. A bucket-type conveyor 23, having a suitable driving means (not shown), is used to carry the developing material to the upper part of the developer housing where it is cascaded down over a hopper chute 24 onto the xerographic drum.

As the developing material is cascaded over the xerographic drum, toner particles are pulled away from the carrier component of the developing material and deposited on the drum to form powder images, while the partially denuded carrier particles pass off the drum into the developer housing sump. As toner powder images are formed, additional toner particles must be supplied to the developing material in proportion to the amount of toner deposited on the drum. For this purpose, a toner dispensing system generally designated 25 of the type disclosed in copending Hunt application Serial No. 776,976, filed November 28, 1958, is used to accurately meter toner to the developing material.

Positioned next and adjacent to the developing station is the image transfer station which includes suitable sheet feeding mechanism adapted to feed sheets of paper successively to the xerographic drum in coordination with the presentation of the developed image on the drum at the transfer station. This sheet feeding mechanism includes a sheet source such as a tray 26 for a plurality of sheets of a suitable transfer material 27 that is, typically, sheets of paper or the like, a separating roller 28 adapted to feed the top sheet of the stack to the feed rollers 31 which direct the sheet material into contact with the rotating drum at a speed preferably slightly in excess of the rate of travel of the surface of the drum in coordination with the appearance of the developed image at the transfer station. In this manner, the sheet material is introduced between the feed rollers and is thereby brought into contact with the rotating drum at the correct time and position to register with the developed image. To effect proper registration of the sheet transfer material with the feed rollers 31 and to direct the sheet transfer material into contact with the drum, guides 32 and 33 are positioned on opposite sides of the feed rollers 31.

The transfer of the xerographic powder image from the drum surface to the transfer material is effected by means of a corona discharge device 34 that is located at or immediately after the point of contact between the transfer material and the rotating drum. Corona discharge device 34 is substantially similar to that employed at charging station 12 in that it includes an array of one or more corona discharge electrodes that are energized from a suitable high potential source and extend transversely across the drum surface and are substantially enclosed within a shielding member. In operation, the electrostatic field created by corona discharge device 34 is effective to tack the transfer material electrostatically to the drum surface, whereby the transfer material moves synchronously with the drum while in contact therewith. Simultaneously with the tacking action, the electrostatic field is effective to attract the toner particles comprising the xerographic powder image from the drum surface

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and cause them to adhere electrostatically to the surface of the transfer material.

Immediately subsequent to the image transfer station is positioned a transfer material stripping apparatus, of the type disclosed in copending Rutkus et al. application Serial No. 824,658, filed concurrently herewith on July 2, 1959, for removing the transfer material from the drum surface. This device includes a plurality of small diameter, multiple outlet conduits 35 of a manifold 36 that is supplied with pressurized aeriform fluid by a pulsator 37 operated by a suitable power means, such as, for example, solenoid 38. The pulsator is adapted to force jets of pressurized aeriform fluid through the outlet conduits into contact with the surface of the drum slightly in advance of the sheet material to strip the leading edge of the sheet material from the drum surface and to direct it onto an endless conveyor belt 41 whereby the sheet material is carried to a fixing device, such as, for example, heat fuser 42 of the type described in copending Eichler application Serial No. 797,143, filed March 4, 1959, now Patent No. 2,965,868, whereby the developed and transferred xerographic powder image on the sheet material is permanently fixed thereto.

After fusing, the finished copy is preferably discharged from the apparatus at a suitable point for collection externally of the apparatus. To accomplish this there is provided a vertical conveyor, generally designated 43, by means of which the copy is delivered to copy holder 44 positioned in a suitable superstructure overhanging the rear portion of the desk top. As illustrated, the vertical conveyor 43 includes a series of idler feed rollers 45 mounted in parallel interengaging relationship with respect to a series of driven feed rollers 46. Copy delivered by endless conveyor 41 is directed by guide 47 in its feed passage from the endless conveyor 41 to the first set of feed rollers, from where guides 48, 49 and 50 direct each copy through the conveyor.

The next and final station in the device is a drum cleaning and discharge station where any powder remaining on the xerographic drum after transfer is removed by a rotating brush and the xerographic drum is flooded with light to cause dissipation of any residual electrical charge remaining on the xerographic drum.

To remove residual powder from the xerographic drum there is disposed a cylindrical brush 52 rotatively mounted on axle 53. For collecting powder particles removed from the xerographic drum by the brush 52 there is provided a dust hood 54 that is formed to encompass approximately two-thirds of the brush area. To insure thorough cleaning of the brush a flicking bar 59 is preferably secured to the interior of the dust hood adjacent the edge of exhaust duct 55 and in interfering relation with the ends of the brush bristles whereby dust particles may be dislodged therefrom.

For removing dust particles from the brush 52 and dust hood 54 an exhaust duct 55 is arranged to cover a slot that extends transversely across dust hood 54 and is connected to a filter bag 56 in filter box 57. Motor-fan unit 58, connected to the filter box produces a flow of air through the filter box drawing air through the area surrounding the xerographic drum by the brush as the air flows through the dust hood. Powder particles are separated from the air as it flows through the filter bag so that only clean air reaches the motor-fan unit 58.

Any residual electrical charge remaining on the xerographic drum is dissipated by light from fluorescent lamp 60 mounted in a suitable lamp housing 61 hinged to the dust hood 54, a starter 62 being provided for energizing fluorescent lamp 60.

Suitable drive means, now shown herein, drive the drum, lens element, and slotted light reflector at predetermined speeds relative to each other and included are means to return the lens element and the slotted light reflector to their respective traverse starting positions and means to effect operation of the bucket-type conveyor,

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toner dispenser, endless conveyor, vertical conveyor; the separating roller and feed rollers being controlled in a manner to permit the feed of a sheet of transfer material in relation to the appearance of a developed image on the xerographic drum in the transfer station.

It is believed that the foregoing description is sufficient for the purposes of this application to show the general operation of a xerographic copier-duplicator. For further details concerning the specific construction of the xerographic copier-duplicator shown, reference is made to copending Mayo et al. application, Serial No. 824,500, filed concurrently herewith on July 2, 1959.

Referring now to FIGS. 2 to 8, inclusive, there is shown a preferred embodiment of a double-hinged platen cover and conveyor of the invention.

Stationary copy board 13 is mounted in a suitable opening formed in the top skin of the desk, shown in outline form only, housing the xerographic machine. Stationary copy board 13 consists of a transparent platen or copy holder 905, usually made of glass or other similarly transparent material, which is preferably mounted in a platen frame 906 removably secured at opposite ends by clip fasteners 907 to mounting plates 908 and 909. The mounting plates 908 and 909 may be formed as an integral part of the xerographic machine, or of the desk enclosing the xerographic machine, or they may be constructed as separate elements as shown with bolt holes 911 for attachment to the frame elements (not shown) of the xerographic machine.

The platen frame 906 may be of any suitable shape, herein shown as a rectangular frame since the unit has been designed to copy legal size and smaller documents. The platen frame consists of a longitudinal frame plate 912 having mitered ends which abut the mitered ends of side frame plates 913, the opposite ends of the side frame plates 913 abutting against a second longitudinal frame plate 914 set in the recess 916 of mounting plate 909. Each of the frame plates 912, 913 and 914 is undercut at its ends to receive flat corner angle braces 915 secured thereon by screws 917, thereby forming a rigid platen frame similar in appearance to a picture frame.

The platen 905 is also rectangular in shape to match the platen frame and the bottom outer edges of the platen are chamfered as at 919 to permit mounting of the platen in the platen frame as described hereinafter.

The two frame plates 913 and the longitudinal frame plate 912 each have an overhanging outside flanged portion 918 which acts as a molding around three sides of the opening in the desk top formed to receive the platen frame. The inner portions of the frame plates 912 and 913 are also flanged at 921 to form a molding around the platen to retain it in position. The inner edges of the frame plates 912 and 913 have grooves 922 formed therein to receive the chamfered edges 919 of the platen which is supported and cushioned by a rubber gasket 923 positioned in the grooves 622, the gasket forcing the platen into contact with the underside portion of the flanges on frame plates 912 and 913.

Longitudinal frame plate 914 has a beveled inner edge to accommodate the left-hand chamfered edge of the platen, as seen in FIG. 4, the platen resting on the chamfered surface of frame plate 914 so that the upper surface of the platen is above the upper surface of the frame plate 914 so that copy may slide from the platen over the frame plate. Thus, the platen is secured to the platen frame by joints similar to scarf joints, except of course, that the elements are not bolted together as is the practice in a typical scarf joint.

As shown in FIG. 4, the mounting plate 909 is undercut or recessed along one end, as at 916, to receive frame plate 914 of the platen frame. From the upper lip of the undercut or recessed portion 916 the top of the mounting plate slants upward to form a leading edge which acts as a paper guide from the platen to the paper con-

veyor belts described hereinafter. The left-hand side of the mounting plate 909 has a downwardly extending taper and has slots or depressions 927 evenly spaced along its length to receive the belts 928 of the paper conveyor.

The platen cover 20 preferably includes two pieces or sheets 931 and 932 of flexible material, such as rubber, bonded together to form a unitary cover element. Two pieces or sheets of flexible material are preferred since this form of construction permits the bottom sheet 931 to serve strictly a utilitarian function while the top piece 932 performs predominantly an aesthetic function. Specifically with this construction the bottom sheet 931 is formed of a white or white pigmented flexible material to reflect light, while the top sheet 932 may be suitably colored to conform with the general color scheme of the desk.

Pickup bar 933 secured, as by rubber cement, to the right-hand or free end of the platen cover 20 supports bifurcated pivot block 934 secured thereto by screws 935. The pivot block 934 is adapted to receive complementary pivot block 936, pivotally secured by pin 937 extending through both pivot blocks 934 and 936, the pivot block 936 being held against lateral movement with respect to the pin 937 by set screw 938. A suitable handle 939 is fastened by screws 935 to pivot block 936. The handle 939 is pivoted in this manner to facilitate the removal of the platen cover from the platen. That is, from a human engineering standpoint, the pivoted handle permits an operator to lift the platen cover directly up off of the platen if desired, or the operator may simply roll the cover back off the platen by moving the handle in a parallel-motion to the surface of the platen. As seen in FIG. 2 the handle is positioned off center from the center line of the platen within easy arm's reach of an operator seated at the desk.

The left-hand edge or hinged end of the platen cover as seen in FIG. 4 is cemented to and clamped between the clamp plates 941 and 942 of longitudinal backing bar 943 having notched pivot plates 944 secured as by screws 935 to opposite ends thereof.

To permit platen cover 20 to be raised over large objects to be reproduced, such as books, while still permitting the platen cover to lie in a plane substantially parallel to the platen, the platen cover is double hinged. To accomplish this there is provided a pivot frame 945 and a pivot frame cover 946; the pivot frame 945 being hinged at one end to bearing brackets 947 secured by screws to a fixed support, in this case, to mounting plate 909, while the opposite end of the pivot frame is pivotally secured to fixed pins 948 of the pivot frame cover which also pivotally supports the platen cover by means of the notched pivot plates 944 engaging the stepped portions of the pins 948.

As shown, the pivot frame cover 946 is formed as an inverted cup-shaped element to completely enclose the pivot frame 945 when in its lowered position. The pivot frame cover has depending side walls to which the pins 948 are secured as by welding. The notched portions of the pivot plates 944 of the platen cover are engaged over the undercut portions of the pins 948 to support the platen cover and to prevent lateral movement of the platen cover. The front wall of the pivot frame cover is cut as at 949 to prevent the front wall of the pivot frame cover from contacting the platen cover when it is in contact with the platen.

In the preferred embodiment of the invention, the pivot frame 945 is also utilized as a frame to support the rotating elements of a copy conveyor adapted to transport single sheets of copy from the platen to a suitable copy collecting tray 950 accessible from outside of the xerographic machine. Pivot frame 945 consists of plates 951 held in fixed parallel spaced relation to each other by spacer rod 952 secured thereto by screws 935 and by spacer rod 953 formed with reduced end portions that are

threaded to receive nuts 954 after the reduced end portions are passed through suitable apertures in parallel plates 951, the pivot frame being adapted to be supported by the end portions of spacer rod 953 resting, when in a lowered position, on stop pins 955 threaded into mounting plate 909.

Drive shaft 956 of the conveyor is journaled in shoulder bearings 957 positioned in the parallel plates, the ends of the drive shaft extending through these bearings on into similar shoulder bearings 957 positioned in bearing brackets 947 whereby the drive shaft is journaled for rotation and whereby the pivot frame is pivotally mounted in the bearing brackets.

In the opposite ends of the parallel plates 951 there are formed complementary bored openings to receive shoulder bearings 957, in which are journaled idler shaft 958 of the conveyor and also formed therein are elongated slots by means of which the pivot frame is pivotally secured to the pins 948 on the pivot frame cover.

To complete the conveyor assembly rubber belts or O-rings 928 encircle the drive and idler shafts 956 and 958, respectively, at spaced intervals thereon.

Drive shaft 956 is shown connected operatively to motor 959 by belt 961, which runs on pulleys 963 and 962 fixedly mounted on drive shaft 956 and motor 959, respectively. The motor 959 mounted on motor base 964 secured to the underside of mounting plate 909 is connected to a source of electric power in the usual manner for control by switching means (not shown).

It is apparent from the description of the FIGS. 2 to 8, inclusive, which illustrate a preferred embodiment of the invention, that the platen is double hinged to permit it to be raised relatively high to cover a substantially large object placed on the platen to be reproduced while still permitting the platen cover to remain substantially parallel to the platen. Specifically, the platen cover is indirectly hinged to one end of the pivot frame by means of the pins on the pivot frame cover, the opposite end of the pivot frame being pivotally supported in the bearing brackets, thereby providing a double-hinge assembly for the platen cover.

While there have been shown and described the fundamental novel features of the invention as applied to a preferred embodiment, it will be understood that various omissions and substitutions and changes in the form and details of the device illustrated and in its operation may be made by those skilled in the art, without departing from the spirit of the invention. For example, it is apparent that the conveyor elements connect to the pivot frame without affecting the operation of the platen cover. It is the intention, therefore, to be limited only as indicated by the scope of the following claims.

What is claimed is:

1. A double hinged platen cover for a transparent copy platen of a copier-duplicator machine, said double hinged platen cover including a pivot frame adapted to be hinged at one end to a fixed support of a copier-duplicator, a pivot frame cover for said pivot frame pivotally connected at one end to the opposite end of said pivot frame, a flexible platen cover, a rigid backing bar secured to one end of said platen cover, said backing bar being pivotally secured to said one end of said pivot frame cover and to said opposite end of said pivot frame, and a handle secured at the opposite end of said platen cover from said backing bar.

2. A double hinged platen cover for a transparent copy platen of a copier-duplicator machine inclosed in a machine housing, including bracket means adapted to be supported by a structural element of the copier-duplicator, flexible platen cover means including a handle pivotally connected to one end of a flexible cover, frame means, cover means therefor, said frame means pivotally connected at one end to said bracket means and pivotally connected at its opposite end to said frame cover means and to said platen cover means at the opposite end of said flexible cover from said handle, said frame cover means

being adapted at its opposite end to slide on the housing of a copier-duplicator machine.

3. A double hinged platen cover for a transparent copy platen of a copier-duplicator machine, said double hinged platen cover including bracket means adapted to be secured to a structural element of a copier-duplicator, platen cover means, frame means, cover means therefor, said frame means hinged at one end to said bracket means and hinged at its opposite end to both said platen cover means and said frame cover means, said frame means including driven copy conveyor means.

4. In a xerographic apparatus having a copy platen mounted in an opening in the housing of the xerographic apparatus and parallel thereto, a double hinged platen cover including a flexible platen cover adapted to cover said copy platen, a handle pivotally connected to one end of said flexible platen cover, a backing means secured to the opposite end of said flexible platen cover, a pivot frame means pivotally connected at a first end to said backing means and adapted to be pivotally connected at a second end to a frame member of the xerographic apparatus, and a frame cover for said pivot frame means pivotally connected at one end to said backing means and to said first end of said pivot frame means, the opposite end of said frame cover being adapted to rest in sliding contact with the top of the housing of the xerographic apparatus.

5. A double hinged platen cover for a xerographic ap-

paratus having a copy platen mounted in an opening in the top of a housing enclosing the xerographic apparatus and parallel to the top of the housing; said double hinged platen cover including a platen cover adapted to overlay a copy platen, a handle connected to one end of said platen cover, backing means secured to the opposite end of said platen cover, conveyor means including frame means pivotally connected at a first end to said backing means and adapted to be pivotally connected at its opposite end to a frame member of the xerographic apparatus, cover means for said conveyor means pivotally connected at one end to said backing means and to said first end of said conveyor means, the opposite end of said cover means being adapted to rest in sliding contact with the top of the housing enclosing the xerographic apparatus.

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