June 12, 1973 R. L. DALTON 3,738,836

PROCESS OF MAKING IDENTIFICATION CARDS

Original Filed July 17, 1967 4 Sheets-Sheet 1

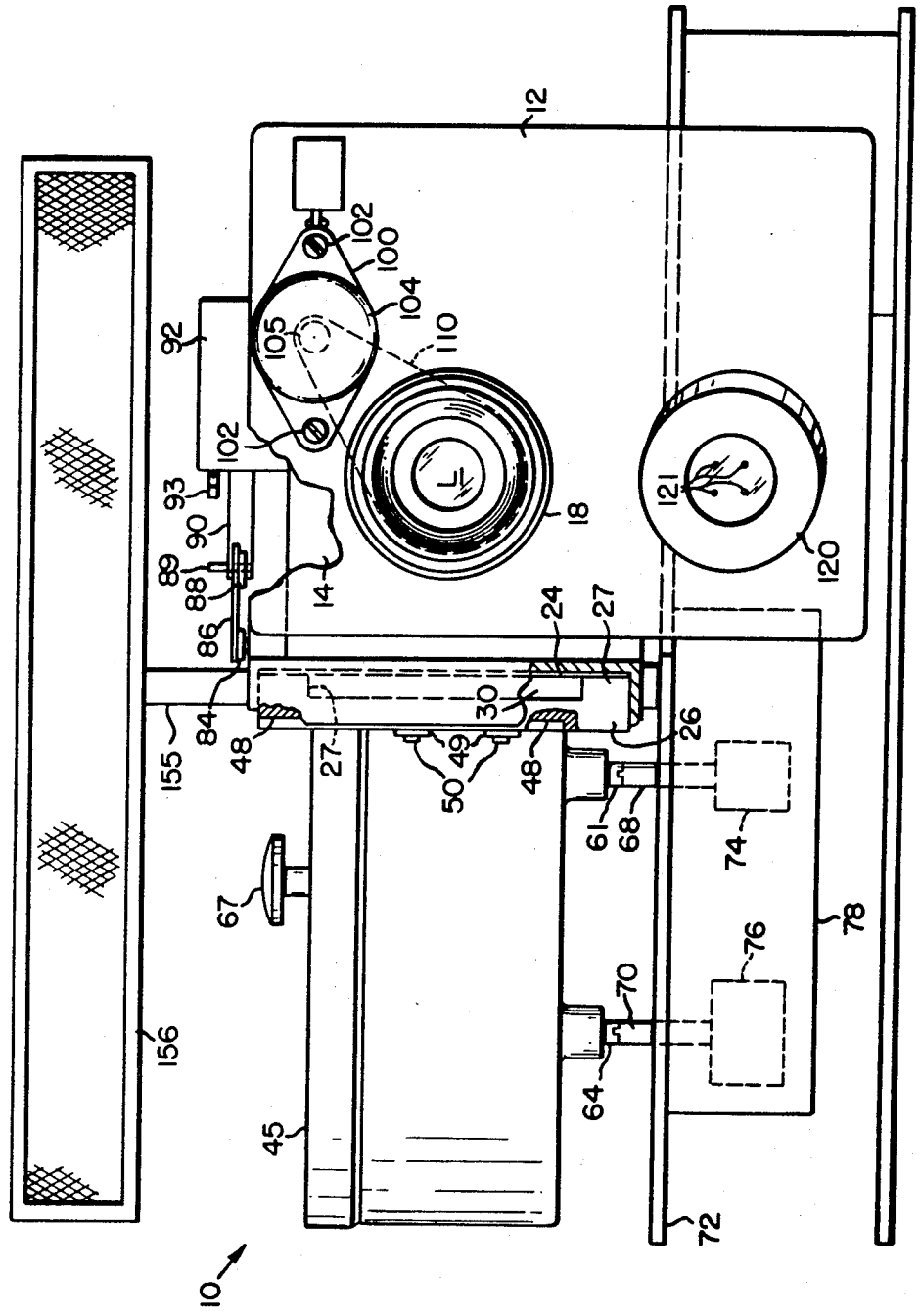

FIG. 1

INVENTOR
ROBERT L. DALTON

By: Schlesinger, Fitzsimmons & Schlesinger
ATTORNEYS

PROCESS OF MAKING IDENTIFICATION CARDS

Original Filed July 17, 1967 4 Sheets-Sheet 2

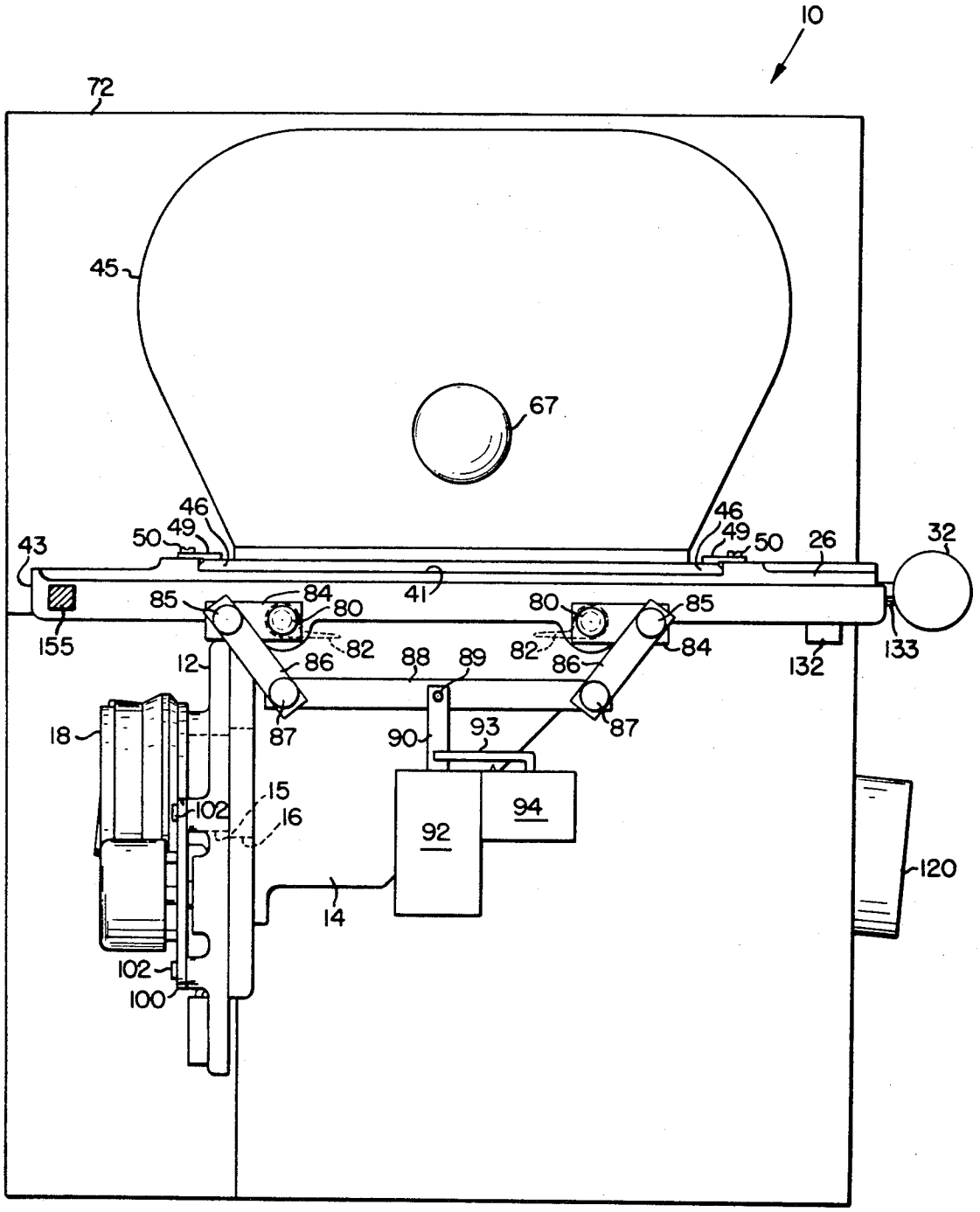

FIG. 2

INVENTOR
ROBERT L. DALTON

By:
Schleinger, Fitzsimmons & Schleinger
ATTORNEYS

PROCESS OF MAKING IDENTIFICATION CARDS

Original Filed July 17, 1967 4 Sheets-Sheet 3

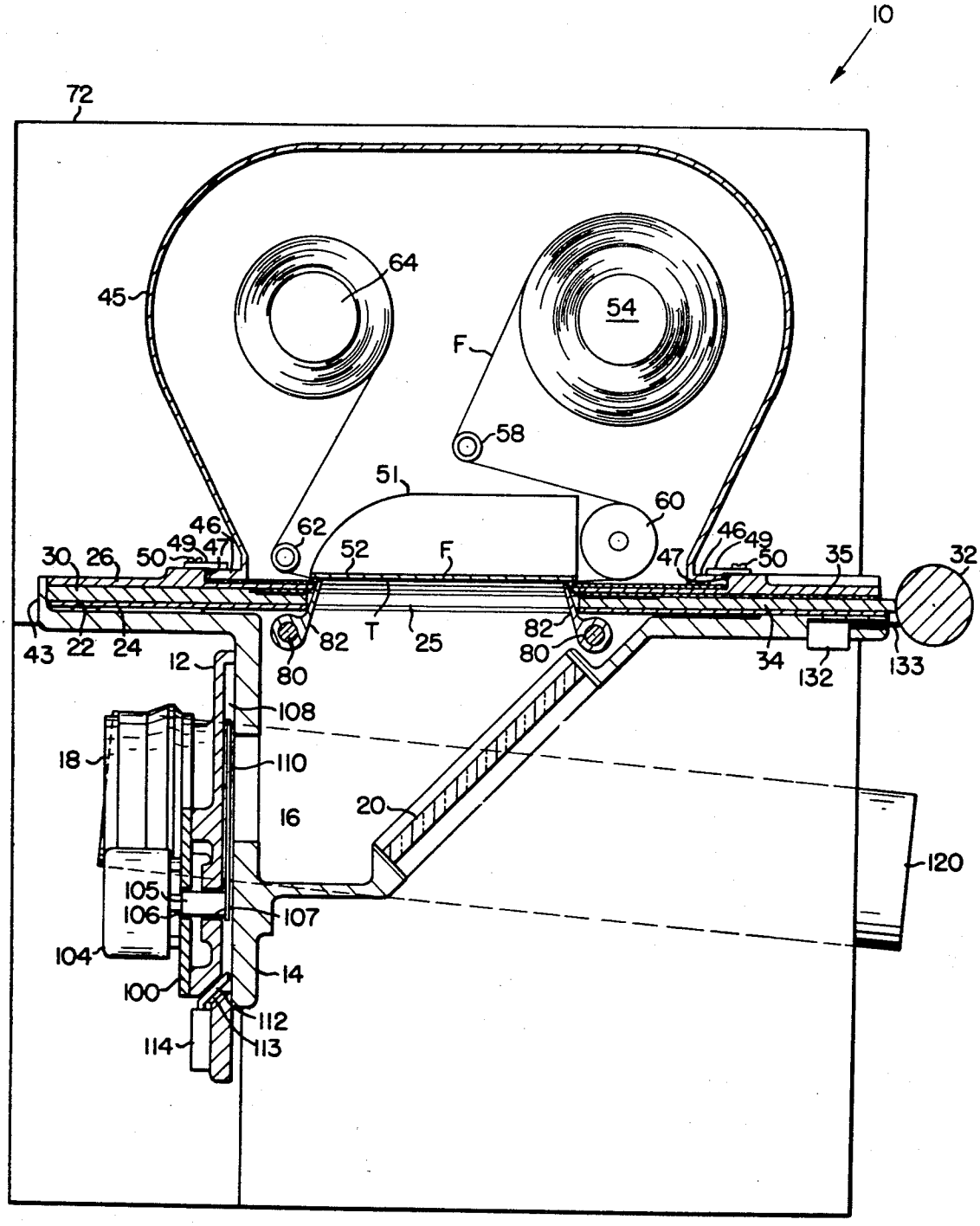

FIG. 3

INVENTOR
ROBERT L. DALTON

By:
Schlesinger, Fitzsimmons & Schlesinger
ATTORNEYS

PROCESS OF MAKING IDENTIFICATION CARDS

Original Filed July 17, 1967 4 Sheets-Sheet 4

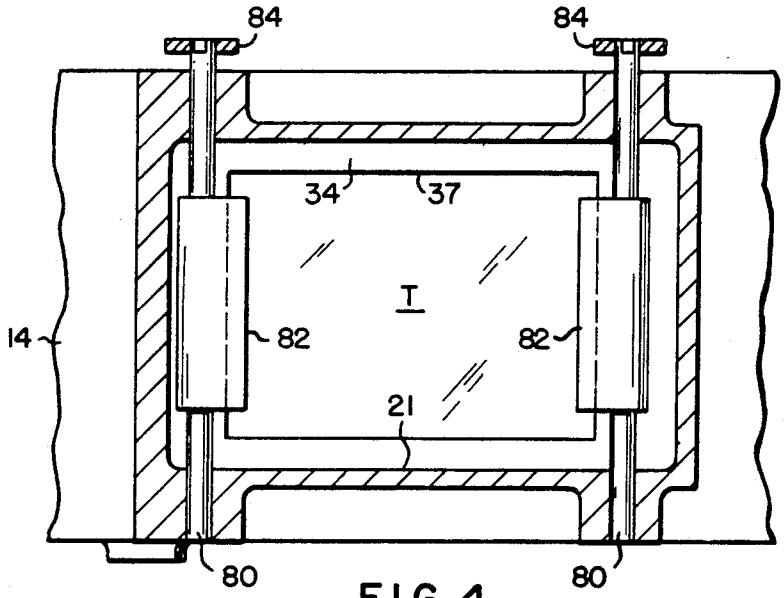

FIG. 4

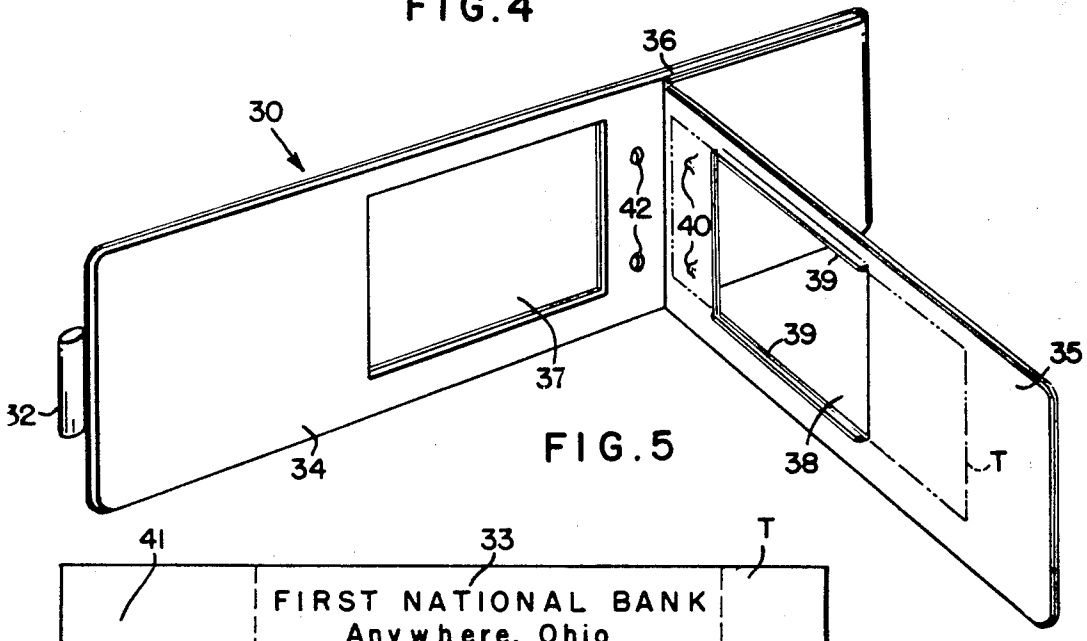

FIG. 5

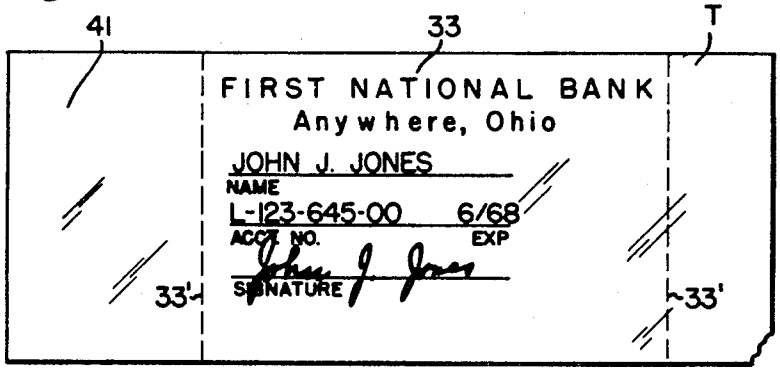

FIG. 6

INVENTOR
ROBERT L. DALTON

By,
Schlesinger, Fitzsimmons & Schlesinger
ATTORNEYS

United States Patent Office 3,738,836
Patented June 12, 1973

3,738,836

PROCESS OF MAKING IDENTIFICATION CARDS

Robert L. Dalton, Pittsford, N.Y., assignor to
R. D. Products, Inc., East Rochester, N.Y.

Original application July 17, 1967, Ser. No. 653,808.
Divided and this application Dec. 14, 1970, Ser. No. 97,781
Int. Cl. G03c 5/04
U.S. Cl. 96—43 2 Claims

ABSTRACT OF THE DISCLOSURE

A transparency, bearing intelligence identifying the individual, whose picture is to be taken, is slid into the camera into registry with the exposure aperture of the camera, and both the image of the individual and the intelligence on the transparency are photographed simultaneously on the film frame.

This application is a division of my application Ser. No. 653,808, filed July 17, 1967, now Pat. No. 3,547,015, patented Dec. 15, 1970.

This application relates to the production of identification cards such as are used by employers, state motor and gun licensing bureaus, for credit cards, etc.

Heretofore most identification cards have been produced either by gluing or photographing an individual's picture onto a blank identification card, and thereafter typing on the card pertinent descriptive data as to the individual, such as his name, address, account number, etc. Usually this card is signed by the individual after his or her picture has been mounted thereon. In any case, the information added to such a card can be altered by erasure, ink eradication, or the like. Aside from this, the preparation of I.D. cards heretofore has been quite time-consuming, often involving photographing the individual at one site, and preparation of the card itself at another place.

The primary object of this invention is to provide I.D. cards that are effectively incapable of alteration.

To this end it is another object of the invention to photograph an individual and his or her pertinent identifying data simultaneously onto a single film frame which itself may constitute the I.D. card, or from which the I.D. card may be printed.

Other objects of the invention will be apparent hereinafter from the specification and from the recital of the appended claims, particularly when read in conjunction with the accompanying drawings.

In order to describe the invention, we shall disclose it in connection with the camera claimed in my parent patent Ser. No. 653,808, above-mentioned which is one type of camera that may be employed for practicing the process of this invention.

In the drawings:

FIG. 1 is a front elevational view of a camera built to practice this invention, parts thereof being cut away and shown in section;

FIG. 2 is a plan view of this camera with its flash attachment cut away;

FIG. 3 is a plan view similar to FIG. 2, but with additional parts thereof cut away and shown in section;

FIG. 4 is a fragmentary sectional view on an enlarged scale showing the exposure aperture and parts of the means for clamping a transparency against the film;

FIG. 5 is a perspective view illustrating one type of transparency holder or slide adapted to be employed within this camera; and

FIG. 6 is a view of a typical transparency usable in the camera.

Referring now to the drawings by numerals of reference, 10 denotes generally a camera comprising a lens

mount or plate 12, which is secured to the front of a housing 14, so that an opening 15 (FIG. 2) in plate 12 registers with an opening 16 in the front of the housing. A conventional lens barrel 18 is mounted on the front of plate 12 so that its lens L (FIG. 1) registers through openings 15 and 16 with a mirror 20 (FIG. 3), which is mounted in the rear of housing 14 to lie in a plane inclined approximately forty-five degrees to the axis of the lens L. Images reflected by the mirror are projected through an opening 21 (FIG. 4) in the side of the housing.

Seated on a ridge 22 (FIG. 3) formed on the side of housing 14 is a spacer plate 24 having an aperture 25 therethrough registering with opening 21 of housing 14. Mounted on plate 24 is an elongate, frame member 26 having on one side thereof spaced, parallel ribs or guides 27 (FIG. 1), which rest on plate 24 and form a guide for a slidably removable transparency holder 30 (FIG. 3). This slide has at one end a handle 32 by which it is insertable into and withdrawable from frame member 26.

As shown in FIG. 5, the format slide 30 comprises an apertured base plate 34 and an apertured cover or door 35 hinged at 36 to base plate 34. The slide 30 is adapted to hold a plastic transparency, one side of which is dull and the other side of which is glossy, and bearing on its non-glossy side informational indica, such as that shown in FIG. 6, which is such as may be used in making a credit card. The transparency is adapted to be placed between the base plate 34 and the door 35 with the portion 33 of the transparency, which carries the indica, registering with the apertures 37 and 38 in base plate and door, respectively. When the slide 30 is pushed home against the flange 43 (FIG. 3) on housing 14 apertures 37 and 38 register with opening 25 in plate 24 and with opening 21 (FIG. 4) in housing 14.

The aperture 38 (FIG. 5) is bounded along its upper and lower edges by ledges 39 which support the transparency T in registry with apertures 37 and 38. Adjacent its inner end, door 35 is provided with two spaced, pointed teeth or tabs 40, which are adapted to punch through the inner end 41 of the transparency T and extend into registering openings 42 in the base 34 of the holder 30, when the loaded door is closed.

Slide 30 is removable only from the back or right side (FIGS. 2 and 3) of the camera.

The film F used with the camera is carried in a removable cartridge or magazine 45, one of which is shown in the drawings. Each cartridge 45 has at opposite sides thereof outwardly projecting feet 46 (FIG. 3), which are adapted to slide between the guide walls 47 of a slot 48 (FIG. 1) formed in the outer face of frame member 26.

The cartridges are removably secured in place by clamps 49, which are fastened to member 26 by screws 50. Cartridge 45 has a rectangular exposure opening (FIG. 3) in its side, which registers with the apertures 21, 37 and 38, when the cartridge is fully seated in the slot 48 and the format slide is in position in the camera.

Rotatably mounted in the cartridge is a supply spool 54 (FIG. 3) which is adapted to hold a roll of film F, which is adapted to be fed from the spool 54 around an idler roller 58, a metering roll 60, across the exposure aperture in the side of the cartridge, beneath the leg 52 of a right-angular pressure plate 51, and around an idler roller 62 to a take-up spool 64. Rollers 58, 60 and 62, and spools 54 and 64 are all suitably journaled in the cartridge. Pressure plate 51 is resilient and may be of conventional construction. It is secured in the cartridge to overlie the opening in the side of the cartridge and to hold a frame of film in the exposure plane of the camera.

At its upper end (FIG. 1) cartridge 45 has a handle 67 for inserting it into, or withdrawing it from, the slot 48. At the lower end of the cartridge, shaft 61 of roller 60 and take-up spool 64 project out of the cartridge and are re-

leasably coupled to one end of a cam shaft 68, and to a motor shaft 70, respectively. Shafts 68 and 70 project rotatably through a support plate 72, which is secured to and projects from the side of the housing 14, and are connected, respectively, to a rotatable timer cam 74, and to an electric motor 76, both of which are mounted in conventional manner in a housing 78 that is secured beneath the plate 72.

Rotatably mounted at opposite ends in the side wall of housing 14 to extend transverse to the axis of lens L at opposite sides, respectively, of opening 21 are two spaced shafts 80 (FIGS. 2 to 4). Secured to each shaft 80 for pivotal movement therewith and into and out of the registering openings 37 and 38 is a finger 82. At one end thereof each shaft 80 is secured to one end of a link 84 (FIG. 2), the opposite end of which is pivotally connected by a pin 85 to a further link 86. The two links 86 are pivotally connected by pins 87 to opposite ends of a toggle arm 88, which is connected by pin 89 to the spring-loaded armature 90 of a conventional solenoid 92, which is secured to the top of housing 14.

When solenoid 92 is energized, its shaft 90 is drawn inwardly against the resistance of a spring (not illustrated) far enough for the arm 88 and links 84 and 86 to pivot the shafts 80 and fingers 82 from their inoperative (broken line) positions (FIG. 2), to their operative (full line) positions (FIG. 3). This movement causes the fingers 82 to swing through the registering openings 37 and 38 of format holder 30 and against opposite ends of the transparency T in the holder so that the transparency is brought into direct contact with that frame of film F, which is then disposed in front of the pressure plate leg 52.

Pin 89 (FIGS. 1 and 2) projects upwardly from armature 90 so that it will strike the operating arm 93 of a normally-open switch 94 (FIG. 2), which is secured to the side of solenoid 92, when the armature 90 is drawn inwardly of the solenoid. Thus, this switch is closed when the transparency has been clamped in direct contact with the film.

When the solenoid 92 is deenergized, its spring returns shaft 90 outwardly, thereby causing fingers 82 to be swung back to their inoperative positions. This releases transparency T and also switch arm 93, so that switch 94 returns to its open position.

Secured to a plate 100, which is removably secured by screws 102 on the face of the mounting plate 12 above and to the right (FIG. 1) of lens barrel 18, is a conventional rotary solenoid 104. Solenoid 104 has an oscillatable shaft 105 (FIG. 3), which projects rearwardly through registering openings 106 and 107 in plates 100 and 12, respectively. Secured to the inner end of shaft 105 for oscillation thereby in a space 108 formed between the confronting faces of plate 12 and housing 14 is a shutter blade 110.

When solenoid 104 is deenergized, the shutter 110 is disposed in its normally-closed, or broken line, position (FIG. 1), wherein it registers with the opening 16 in housing 14 to prevent the passage of light through the lens L and into the housing 14. When solenoid 104 is energized, shutter 110 is pivoted by shaft 105 out of registry with lens L to permit exposure of the frame of film F then in registry with openings 37, 38, 25 and 21 and with mirror 20. When shutter 110 reaches its fully open position under the action of solenoid 104, it trips arm 112 (FIG. 3) of a normally-open switch 114, which is secured to the face of plate 12 beneath solenoid 104. Arm 112 projects through an opening 113 in plate 12 into the space 108 in which the shutter 110 pivots.

Mounted beneath plate 72 is housing 120 (FIGS. 1 and 2) of a conventional viewfinder device. Housing 120 projects through plate 12 beneath lens barrel 18; and one of its lenses has thereon four marks 121 within which the image of the object or person to be photographed is centered.

Mounted in a recess formed in the back of housing 14 beneath the slide 30 is a normally-open slide position switch 132 (FIGS. 2 and 3), which has an operating arm 133 that extends through an opening in the back of housing 14 into registry with the handle 32 on holder 30. When holder 30 is fully seated beneath member 26 as illustrated in FIG. 3, handle 32 engages arm 133 to close switch 132.

Mounted on a post 155, which projects up from housing 14 adjacent its forward edge is a conventional flash tube or lamp 156.

One way in which the camera may be wired electrically for operation is illustrated in my parent patent and reference may be had to that application for a detailed description thereof.

To use the camera, a translucent, plastic transparency T containing the data or intelligence, which is to be recorded on the I.D. card, is mounted in holder 30 (FIG. 5) so that its dull side, bearing the intelligence, will face the lens of the camera and its glossy side will face the film. The holder is then inserted in the camera until its handle 32 engages arm 133 (FIG. 2), closing switch 132.

When the person to be photographed is in position, a switch is closed to illuminate the viewfinder, and the camera is focused on the person. Then a switch, which may be located at any convenient point on the camera, is pushed manually to closed position. With switch 132 (FIG. 3) closed by transparency holder 30, a time relay energizes solenoid 92 (FIG. 2), so that the fingers 82 (FIGS. 2 and 3, are rotated to press the transparency T firmly against the film frame then registering with the apertures 21, 37 and 38 (FIGS. 1 and 5). When the armature of solenoid 92 reaches its fully retracted position, it engages and closes switch 94 (FIG. 2), which causes rotary solenoid 104 (FIG. 1) to be energized momentarily. This moves the shutter momentarily out of registry with lens L so that light and the image of the person being photographed fall on the mirror 20 (FIG. 3) and thence is reflected thereby through transparency T and onto film F.

When shutter 110 (FIGS. 1 and 3) reaches its fully open position, it closes a switch, triggers the flash lamp and causes it to discharge, creating a brilliant flash in the lamp housing while the shutter is still in its open position. This exposes the film to both the intelligence on transparency T, and to the image of the person being photographed. Thus, a picture is reproduced on the film of the intelligence on transparency T and of the person to whom that intelligence applies.

After the exposure, the time delay relay deenergizes clamping solenoid 92 (FIGS. 1 and 7) and TR–2 now closes to energize motor 76. Hence, the exposed frame of the film is moved out of registry with the exposure opening of the camera, and is wound up on the take-up spool 64 (FIG. 3). Motor 76 (FIG. 1) continues to rotate until cam 74 has made one complete revolution, to bring a new, unexposed frame of film into registry with the exposure aperture of the camera.

It will be appreciated that when solenoid 92 is deenergized, the spring of solenoid 92 returns its armature to its upper position, illustrated in FIG. 1, so that the fingers, that had been holding the transparency against film F, are swung back to their inoperative or broken line positions. This movement also releases switch 94, which opens to prevent energization of solenoid 104 until the next time switch 94 is closed in the automatic cycle of operation of the camera.

From the preceding description it will be seen that with the camera described, both the picture of a person and of his or her identifying data are photographed simultaneously on a frame of film. This absolutely prevents alteration of the resulting I.D. card. The frame of film may itself be used as the I.D. card, preferably being mounted on a clear plastic backing or sandwiched in a clear plastic mounting, or a print can be made of the film frame, and this print, mounted on clear plastic or not, as desired, may constitute the I.D. card. Thus, drivers' licenses, credit

cards, employee I.D. cards, etc. can be made up quickly and cheaply and without fear of alteration.

The portion **33** of the transparency shown in FIG. 6 bounded by the dash lines **33'** is what will be photographed onto the film. A frame of the film may be of the same size as the space between these dash lines, and the identification card may also be of this size. The photograph of the individual identified by the intelligence on the transparency may appear in the lower right hand portion of the parts of the film frame and of the identification card, respectively, which correspond to this lower right-hand portion of the space **33** on the transparency, or the individual's photograph may extend over part or all of the intelligence photographed on the film frame and appearing on the I.D. card. The position of the individual's photograph on the film frame and on the I.D. card is determined by the position of the apertures in the camera and in the transparency holder and by the location of the camera lens. Thus, the individual can be photographed on the I.D. card so that his picture will extend over part or all of this identifying data, as desired.

While the invention has been described in connection with a specific embodiment thereof, it will be understood that it is capable of further modification, and this application is intended to cover any variations, uses, or adaptations of the invention following, in general, the principles of the invention and including such departures from the present disclosure as come within known or customary practice in the art to which the invention pertains and as may be applied to the essential features hereinbefore set forth, and as fall within the scope of the invention or the limits of the appended claims.

Having thus described my invention, what I claim is:

1. The method of making an identification card comprising

clamping a translucent, plastic transparent sheet, that bears data identifying a particular individual, across the whole of the area that is to be photographically exposed and into direct contact with a strip of photosensitive material, and

simultaneously photographing the individual and said data through said transparent sheet onto the same side of said strip by the light passing through a single open camera lens, while said transparency is clamped directly against and in contact with said strip,

thereby to photograph the individual and said data simultaneously on said strip.

2. The method of making an identification card as claimed in claim **1**, wherein

the transparency has a dull side and a glossy side,

the identifying data is on the dull side of the transparency and faces the lens, and

the glossy side of the transparency is clamped against the photosensitive material.

References Cited

UNITED STATES PATENTS

3,326,102	6/1967	Dalton	95—1.1
1,916,282	7/1933	Peacock	95—1.1
1,676,495	7/1928	Hammond	96—43
3,102,459	9/1963	Zimberoff	96—43 X
3,345,924	10/1967	Kitrosser	95—1.1
1,359,246	11/1920	Gaisman	95—1.1
2,830,512	4/1958	Nagel	95—1.1

DAVID KLEIN, Primary Examiner