No. 644,398. Patented Feb. 27, 1900.

C. D. BRADT.

MACHINE FOR ATTACHING COLOR SPECIMENS TO SAMPLE CARDS.

(Application filed Oct. 8, 1898.)

(No Model.) 4 Sheets—Sheet 1.

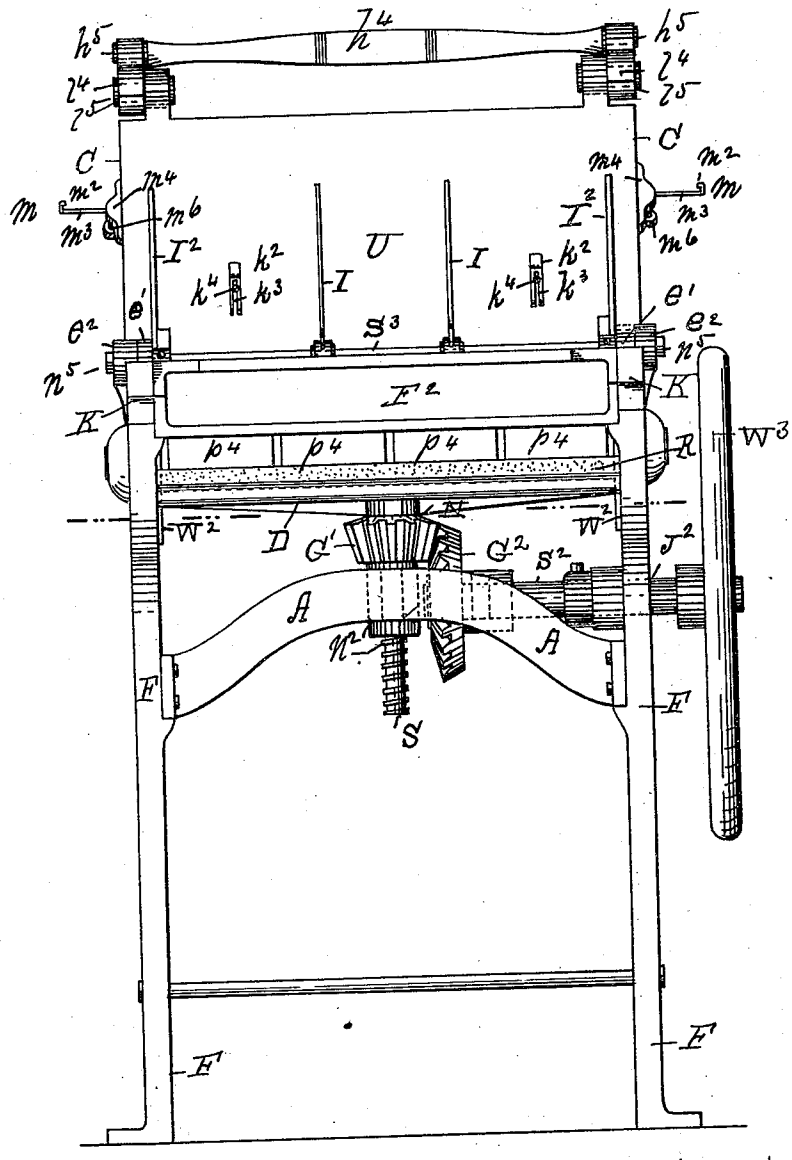


FIG 1

WITNESSES

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(No Model.) 4 Sheets—Sheet 2.

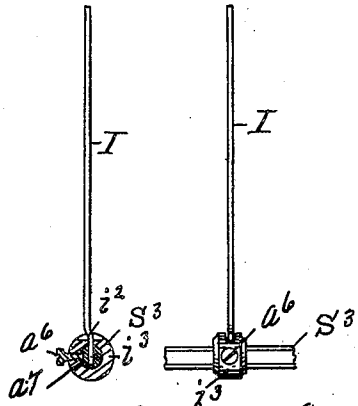


Fig 9 Fig 8

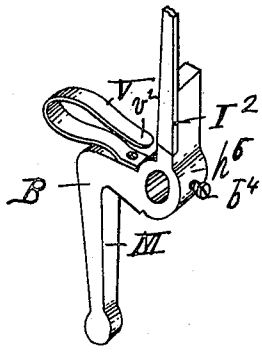


Fig 10

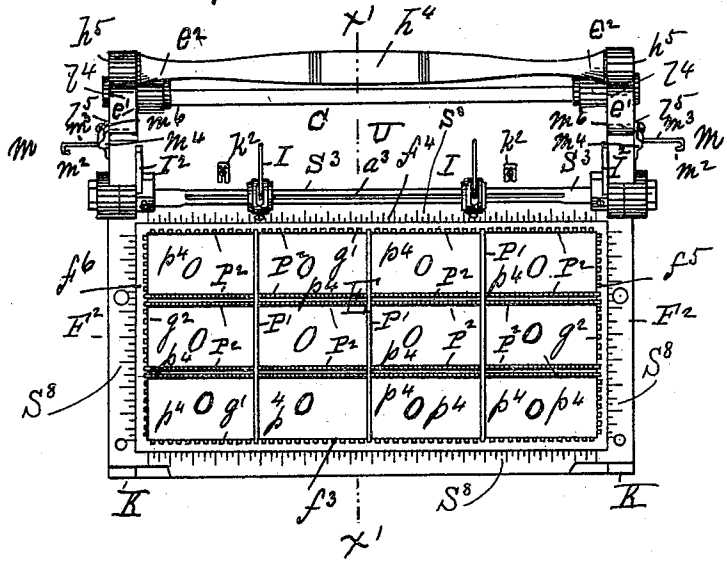


Fig 2

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(No Model.) 4 Sheets—Sheet 3.

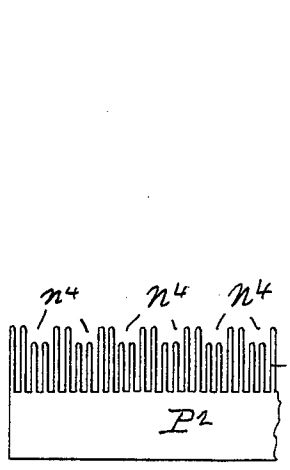



Fig 6

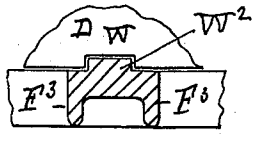



Fig 5

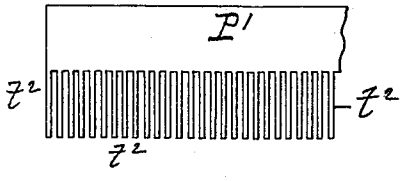



Fig 7

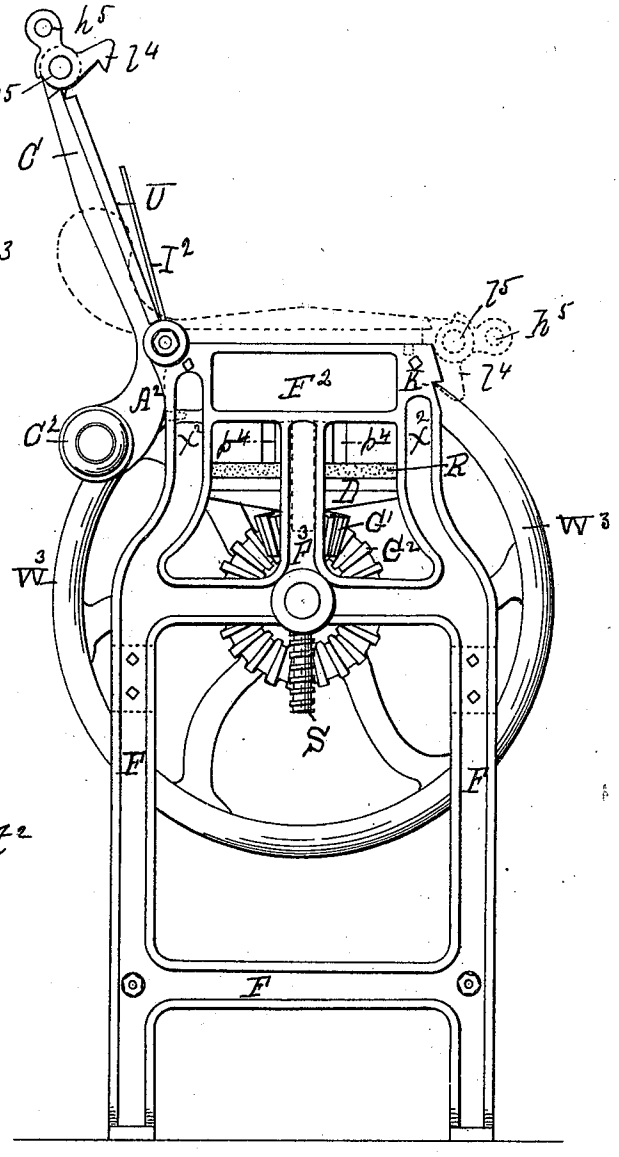



Fig 3.

WITNESSES

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No. 644,398. Patented Feb. 27, 1900.

C. D. BRADT.

MACHINE FOR ATTACHING COLOR SPECIMENS TO SAMPLE CARDS.

(Application filed Oct. 8, 1898.)

(No Model.) 4 Sheets—Sheet 4.

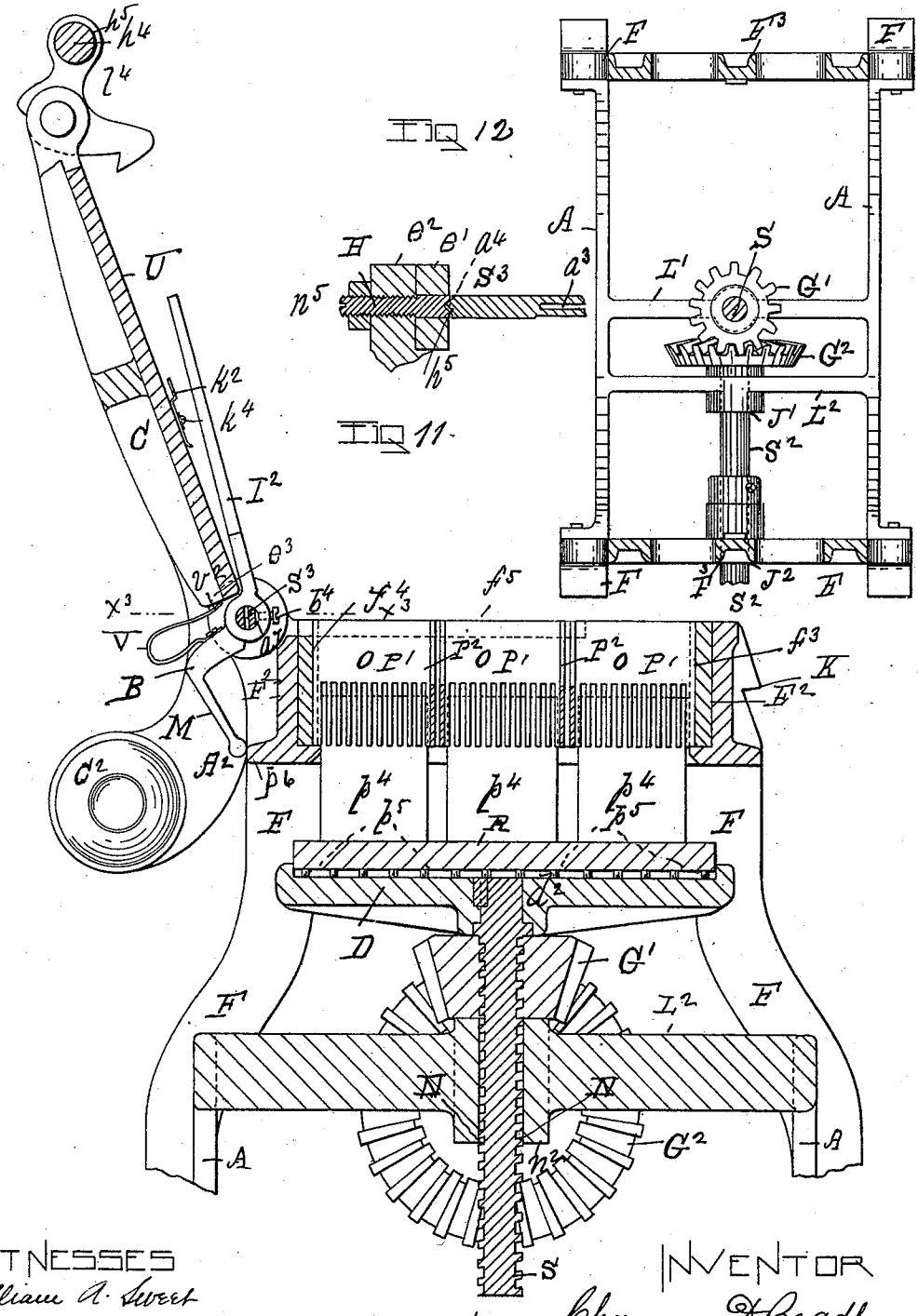


Fig 12

Fig 11

Fig 4

WITNESSES
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

CHAUNCEY D. BRADT, OF GREEN ISLAND, NEW YORK, ASSIGNOR TO GEORGIANNA BRADT, OF SAME PLACE.

## MACHINE FOR ATTACHING COLOR SPECIMENS TO SAMPLE-CARDS.

SPECIFICATION forming part of Letters Patent No. 644,398, dated February 27, 1900.

Application filed October 8, 1898. Serial No. 693,000. (No model.)

*To all whom it may concern:*

Be it known that I, CHAUNCEY D. BRADT, of the village of Green Island, Albany county, and State of New York, have invented new and useful Improvements in Machines for Attaching Color Specimens to Sample-Cards, of which the following is a specification.

My invention relates to improvements upon that class of machines which are constructed to apply color specimens to sample cards or sheets, and more particularly to improvements upon that machine designed for such uses which is illustrated and described in Letters Patent No. 596,977, granted to me as inventor January 11, 1898, it being the object and purpose of my improvements herein to simplify the manner of operating the apparatus described and shown in the older Letters Patent before named, with the addition to it also of certain features of construction which better adapt it to the uses for which it is designed.

Accompanying this specification to form a part of it there are four plates of drawings, containing twelve figures illustrating my invention, with the same designation of parts by letter reference used in all of them.

Of the illustrations, Figure 1 is a front elevation of the machine with the hinged cover shown as swung up from off its top. Fig. 2 is a top view of the machine with the hinged cover shown as swung up. Fig. 3 is an elevation of that end of the machine which is opposite to that at which power is applied to operate it. Fig. 4 is a section taken on the line $x'$ $x'$ of Fig. 2. Fig. 5 is a section taken on the line $x^2$ $x^2$ of Fig. 3. Fig. 6 is a side elevation of a part of one of the partitions which are longitudinally placed when in position in the machine-top. Fig. 7 is a side elevation of a part of one of the cross-partitions which when in position in the machine are used in connection with the partitions shown at Fig. 6 to form the inclosures or pockets in the machine-top for the ticket-form color specimens. Fig. 8 is an elevation of one of the card-holding fingers, together with a part of the shaft with which the fingers connect and by which they are operated. Fig. 9 is another elevation of one of the card-holding fingers, shown as detached and with a part of the shaft with which it connects and by which it is operated shown in cross-section. Fig. 10 is a perspective of one of the cranks operating the shaft by which the card-holding fingers connected thereto are actuated. Fig. 11 is a longitudinal section of the shaft by which the fingers connected thereto are operated, taken on the line $x^3$ $x^3$ of Fig. 4, showing also a section of one of the crank-sleeves, also a section of one of the pins on which the machine-cover hinges and of which hinging mechanism there is one at each end of the machine. This figure shows, also in section, the journaled connection between the finger-actuating shaft and one of the hinging-pins of the cover. Fig. 12 is a plan view of the gears which operate the bed and the pistons in the ticket-form color specimen inclosures.

The several parts of the apparatus thus illustrated are designated by letter reference, and the function of the parts is described as follows:

The letters F designate the machine-frame, the top part of which, as indicated at $F^2$, is arranged interiorly to have the front side $f^3$ and the rear side $f^4$ at right angles to the interior surface of the frame ends, (indicated at $f^5$ and $f^6$,) thus forming the rectangular inclosure E, having vertical sides and ends. The interior face of the front and rear walls of the inclosure E are vertically grooved at $g'$, and the interior face of the ends of this inclosure are also vertically grooved at $g^2$.

The letters P′ designate a series of partitions each of which upon what is its lower edge when in position within the inclosure E is slotted or toothed at $t^2$, as shown, where a part of one of these partitions P′ is illustrated at Fig. 7. The letters $P^2$ designate another series of partitions, of which there is one shown in part as detached from the machine at Fig. 6, each of which last-named partitions is slotted or toothed upon what is its upper edge when inserted within the inclosure E, as indicated at $t^3$. These two series of partitions as thus made are used to form the ticket-form color-specimen inclosures or pockets O within the inclosure E by inserting the partitions $P^2$, with one of each of their ends oppositely entered at regular intervals apart, in

one of the vertical grooves $g^2$ of each of the ends $f^5$ and $f^6$ and with their toothed or slotted edges $t^3$ uppermost, and then by inserting the partition-plates P′, with their slotted or toothed edge downwardly projected, and with each of the opposite ends of each of the partitions P′ entered at regular intervals in one of the grooves $g'$ of the interior front wall $f^3$ and the interior of the rear wall $f^4$ of the inclosure E, with the parts of the partitions P′, where intact between the slots $t^2$, entered within the slots $t^3$ of the partitions $P^2$, and the parts of the latter, where intact between the slots $t^3$, entered within the slots $t^2$, of the partitions P′. The longitudinally-placed partitions $P^2$ and the cross-partitions P′, as thus constructed, when connected dovetail form the inclosures or pockets O of the inclosure E. The longitudinally-arranged partitions $P^2$ are notched or cut away at regular intervals upon their toothed or slotted edges, as shown at $n^4$, the purpose of which will be explained hereinafter in connection with the operation of the card-holding fingers.

The letter $S^3$ designates a graduated scale which is formed upon the top edges of the walls $f^3$, $f^4$, $f^5$, and $f^6$ of the inclosure E, with the scale-graduations registering with the vertical grooves formed in the inclosure-walls, whereby the partitions can be located to form ticket-inclosures having the desired area.

The letters $p^4$ designate pistons, of which there is one arranged in each of the inclosures O, and the letters R designate a sheet of rubber on which the lower ends of each of the pistons $p^4$ rest, and this sheet of rubber is provided with downwardly-projected points $p^5$ upon its lower surface, with these points resting upon the upper surface of the transversely-arranged metal plate D, the latter and the elastic-rubber sheet as thus constructed and placed forming the bed of the machine.

The letter W designates a slideway formed in each end of the plate D, with this slideway arranged to receive a vertical rib-form projection $W^2$, of which there is one formed on each of the centrally-placed vertical end parts $F^3$ of the frame, there being one of these slideways and rib-form projections shown at Fig. 5.

The letters A designate bars, of which there is one at the front and one at the rear of the machine, each connecting at one of its ends with one of the vertically-arranged corner parts of the frame F, and from where thus connecting at the ends these bars are both curved inwardly and upwardly.

The letters L′ and $L^2$ designate two other bars extending from front to rear and at each of their ends each connecting with one of the bars A.

The letter S designates a vertically-placed screw which is arranged to pass upwardly through the enlargement N of the bar $L^2$ at $n^2$ and above where passing through the latter. This screw S is threaded into a beveled pinion G′ to enter a recess $d^2$, formed in the under side of the metal plate D, after passing through the pinion.

The letter $S^2$ designates a horizontally-arranged shaft constructed to journal at J′ in the bar $L^2$ at $J^2$ in the frame-end part $F^3$, and where passing through and inside of the bar $L^2$ the shaft $S^2$ is keyed to a beveled gear-wheel $G^2$, adapted to mesh into the pinion G′.

The letter $W^3$ designates a hand-wheel arranged on the outer end of the shaft $S^2$, by which the gears and screw are operated to raise or lower the bed and the pistons $p^4$, resting thereon.

The letter C designates the cover of the machine, upon the under side of which the previously-pasted cards are held for the attachment thereto of the ticket-form color specimens. This cover C is hinged to the back of the machine-frame at its top corners by means of a hinging-eye $e'$, formed upon each corner of the cover at its hinging side, and an eye $e^2$ on each of the two rear corners of the frame, with a hinging-pin H passing through both of the eyes and rigidly held in the eye $e^2$ by a nut $n^5$. This cover C is constructed with a rearwardly-extended arm $A^2$, having upon its outer end the counterpoise $C^2$, and on its front edge, at each corner, this cover is provided with a latch $l^4$, which at $l^5$ is pivoted to the cover, and these two latches are intermediately connected by a horizontally-arranged handle-bar $h^4$, which at each of its ends is pivoted at $h^5$ to one of the latches $l^4$.

The letters K designate two catches, of which there is one for each latch at each of the front corners of the machine.

The letters $m$ designate card-holding clips, of which there is one at each end of the cover. Each of these clips has a rectangularly-bent end $m^2$ for the reception of one of the end edges of an inserted card, with the shank $m^3$ of these clips each at its inner end adjustably secured in a socket-plate $m^4$, attached to the end edge of the cover by means of a set-screw $m^6$, and whereby these clips can be moved outwardly and inwardly and as so positioned secured for the insertion of cards of differing widths.

The letters $k^2$ $k^2$ designate clips which are adjustably connected to the under side U of the cover by means of a slot $k^3$, formed in the clips, and a set-screw $k^4$, threaded into the cover, the function of these clips $k^2$ being to position the entering edge of the card relatively to the inclosures O.

The letter $S^3$ designates a rock-shaft which is centrally and longitudinally slotted at $a^3$, and at each of its ends $a^4$ this shaft has a cone form, arranged to enter and turn in a cone-form bearing or recess $h^5$, made in the inner end of each of the hinging-pins H, as shown at Fig. 11, in which latter one end of the rock-shaft and its cone-form bearing in the inner end of one of the hinging-pins H is illustrated.

The letters I designate fingers, of which

there are two. (Shown at Figs. 1 and 2.( Each of these fingers I is at one of its ends, as shown at Figs. 8 and 9, entered to pass through a passage $i^2$, formed in a collar $i^3$, arranged on the rock-shaft $S^3$, with the entering end of the finger inserted within the slot $a^3$ of the rock-shaft, to be secured therein by a set-screw $a^6$, which is threaded into the said collar to bear on the flat side $a^7$ of the rock-shaft and to thus connect the fingers I in such a manner as to render their attachment to the rock-shaft to be laterally adjustable as to location thereon.

The letters B designate a crank, of which there is one used at each end of the rock-shaft. Each of these cranks is provided with a sleeve $h^6$, adapted to be passed on over the shaft $S^3$ and to be secured thereto by a set-screw $b^4$, passing through the sleeve by a threaded connection and constructed to bear against the flat side $a^7$ of the rock-shaft $S^3$.

The letters $I^2$ designate fingers, of which there is one rigidly connected to each of the crank-sleeves $h^6$, and the letter V designates a leaf-spring, which at one of its ends is connected to the sleeve of the crank on which it is located, with the other free end $v^2$ of the spring adapted to engage with the edge $e^3$ of the cover C and by this engagement to hold the shaft $S^3$, with the fingers I and the finger $I^2$ on each of the cranks, in engagement throughout their length with the under side U of the cover or a card entered thereon when the cover is being turned down. When the cover C is raised on its hinged connection and is caused to incline rearwardly from a perpendicular to a position of rest, as shown at Fig. 4, the arm M of each of the cranks (when together engaging with the rib $p^6$ on the back of the machine and before coming to a rest thereon) will actuate the cranks B to turn the shaft $S^3$ against the force of the spring V and sufficiently to cause the free ends of the fingers I upon the shaft $S^3$ and the fingers $I^2$ upon the crank-sleeves to move outwardly from their engagement with the under side of the cover, so that a previously-pasted card may be passed downwardly between the end clips $m$ $m$ to rest upon the clips $k^2$ $k^2$ and the under surface U of the cover while the mechanism is in the position shown at Fig. 4. When the fingers I and $I^2$ are in engagement with the inserted card and the cover is being moved downwardly on its hinged connection, the fingers I and $I^2$ will each enter one of the recesses or notches $n^4$ made in the tops of the partition-plates $P^2$.

The operation of the apparatus thus illustrated is described as follows: The inclosures O having been formed by the dovetailing of the partitions P′ and $P^2$ to suit the size of the ticket-form color specimens to be used, and the latter in series of the same color having been inserted in one of the inclosures O, with each of the latter containing a series of tickets having a differing color from the tickets contained in the others, and with the color face of all of the tickets downward in the inclosures and resting upon the pistons $p^4$, a card, upon which paste has been applied, that in areas will register in spacing with the inclosures O having been inserted in the machine, with the latter in the position shown at Fig. 4, and as hereinbefore described, the cover is turned over and down to rest upon the machine-top. The cranks having become disengaged from their engagement with the back of the machine, the springs V become active and cause the fingers I and $I^2$ to engage with the inserted card after the cover has passed from a perpendicular in its descent. Soon as the cover reaches the machine-top in its descent the hand-wheel $w^3$ is operated to move the connecting-gears and the screw S to raise the bed on which the pistons $p^4$ rest, the latter forcing upwardly the tickets and causing the top one of the latter in each of the inclosures O to come in contact with and to adhere to that one of the pasted areas upon the card with which it registers. This being done, the hand-wheel is rotated in reverse direction and which movement draws downwardly the bed, with the pistons and tickets following the descent of the bed as they are in sequence acted upon by gravity. When this has been done, the cover is again raised on its hinged connection, another card is inserted in the cover, and the apparatus operated as before described.

As shown herein, the vertical ends and sides of the machine-frame at the top are upon their interior surfaces vertically grooved and the partitions P′ and $P^2$ are entered in these grooves at right angles to form by their dovetailing connection the ticket-inclosures O, thus dispensing with the rods by which the partitions are shown as connected in the older Letters Patent before named. By thus employing grooves at the ends and sides of the frame interior in which the ticket-inclosures are formed the partitions can be located therein with accuracy and a scale arranged on the sides and ends of the frame part at the top, whereby the ticket-inclosures can be given a desired measurement in cross area.

I am well aware that the method of actuating the pistons $p^4$ by means of the plate D, the gears G′ and $G^2$, the screw S, the hand-wheel $W^3$, and shaft $S^2$ does not change the operation of the pistons from that described in my older Letters Patent before named and that the differing means herein shown is subordinate to my said older Letters Patent before named.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with the frame-top part $F^2$, having arranged therein the ticket-inclosures O, each provided with a piston $p^4$, arranged to rest upon a bed beneath the inclosures, said bed having an elastic upper part and a non-elastic lower part; of means substantially as described whereby said bed

and pistons are operated to move upwardly; a cover hinged to the frame part $F^2$, the horizontally-arranged rock-shaft $S^3$, constructed to journal in the hinged connection that said cover makes with the frame part; fingers I, adjustably connected to said rock-shaft; and the cranks B, B, arranged on said shaft, and each provided with the crank-arm M, the spring V, and the fingers $I^2$; constructed and arranged to be operated substantially as, and for the purposes set forth.

2. The combination with the frame-top part $F^2$, having the hinging-eyes $e^3$, at its rear corners, each provided with a hinging-pin H, secured thereon, and each having on its inner end a cone-form recess or bearing $h^5$; of the cover C, having the hinging-eyes $e'$, $e'$, each arranged to turn on one of said hinging-pins; the rock-shaft $S^3$, having the cone-form ends $a^4$, $a^4$, each adapted to journal in the inner end of one of each of said hinging-pins; said rock-shaft having the slot $a^3$, the collars $i^3$, provided with set-screws, and the fingers I; and the cranks B, B, attached to said rock-shaft, and each having the arm M, the spring V, and the finger $I^2$, constructed and arranged to be operated substantially as, and for the purposes set forth.

3. The combination with the frame-top part $F^2$, having at its rear corners the hinging-eyes $e^2$, provided with the hinging-pins H, and the front corners of said frame part having the latch-catches K, K; of the cover C, provided with the hinging-eyes $e'$, $e'$, each entered upon one of the hinging-pins H, and the latches $l^4$, pivoted to the cover at $l^5$, and intermediately-connected handle-bar $h^4$, constructed and arranged to operate substantially in the manner as and for the purposes set forth.

4. The combination with the frame-top part $F^2$, having arranged therein the ticket-inclosures O, each provided with a piston $p^4$, of the horizontally-arranged plate D, having the rubber R on its upper surface; means whereby said plate, the rubber and pistons resting thereon, may be moved upwardly and downwardly substantially as described; a cover hinged to said frame part at one side thereof; the horizontally-arranged rock-shaft $S^3$, constructed to journal in said hinged connection of cover and frame; and provided with the fingers I, adjustably connected thereto; and the cranks B, B, each having a crank-arm M, a finger $I^2$, and a spring V, constructed and arranged to be operated substantially as and for the purposes set forth.

5. The combination with the frame-top part $F^2$, inclosing the rectangular interior E, having its inner end, and side faces vertically grooved at regular distances apart; of partitions $P^2$, having their upper side edges vertically slotted at regular intervals, and having each of their ends inserted in one of the oppositely-located end grooves; and the partitions $P'$, having their lower edges vertically slotted at regular intervals, and having each of their ends entered in one of the oppositely-located side grooves, with the slotted parts of the partitions where rectangularly intersecting, each entered within the other to form the ticket-inclosures O, and a graduated scale upon the end and side walls of the inclosure at their tops, with said graduation registering with said grooves, whereby said partitions may be accurately located to form ticket-inclosures having desired areas, substantially as shown and described.

Signed at the city of Troy, New York, this 1st day of October, 1898, and in the presence of the two witnesses whose names are hereto written.

CHAUNCEY D. BRADT.

Witnesses:
W. E. HAGAN,
GEO. M. PAYFER.