Aug. 23, 1932. B. A. SCHROEDER 1,873,489

DUPLICATING MACHINE AND STATIONERY FOR USE THEREIN

Filed Aug. 5, 1931 2 Sheets-Sheet 1

Fig. 1.

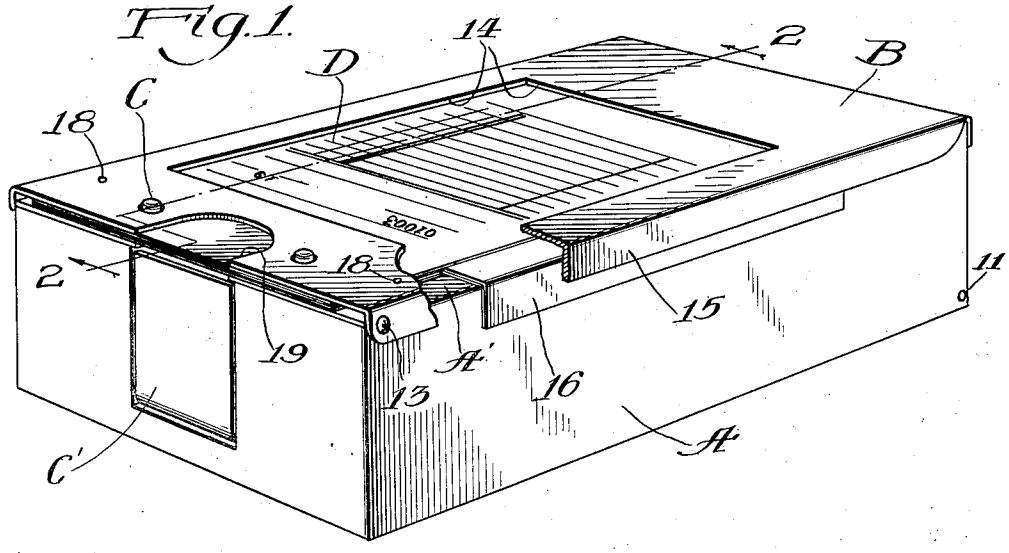


Fig. 2.

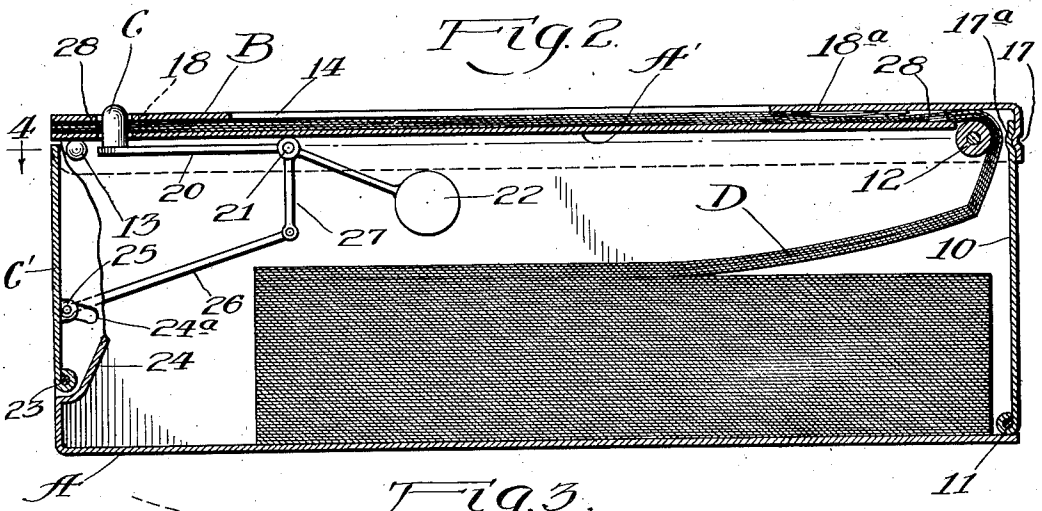
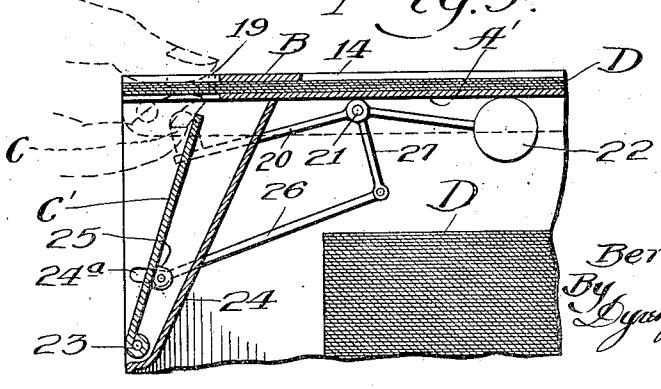


Fig. 3.



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Filed Aug. 5, 1931 2 Sheets-Sheet 2

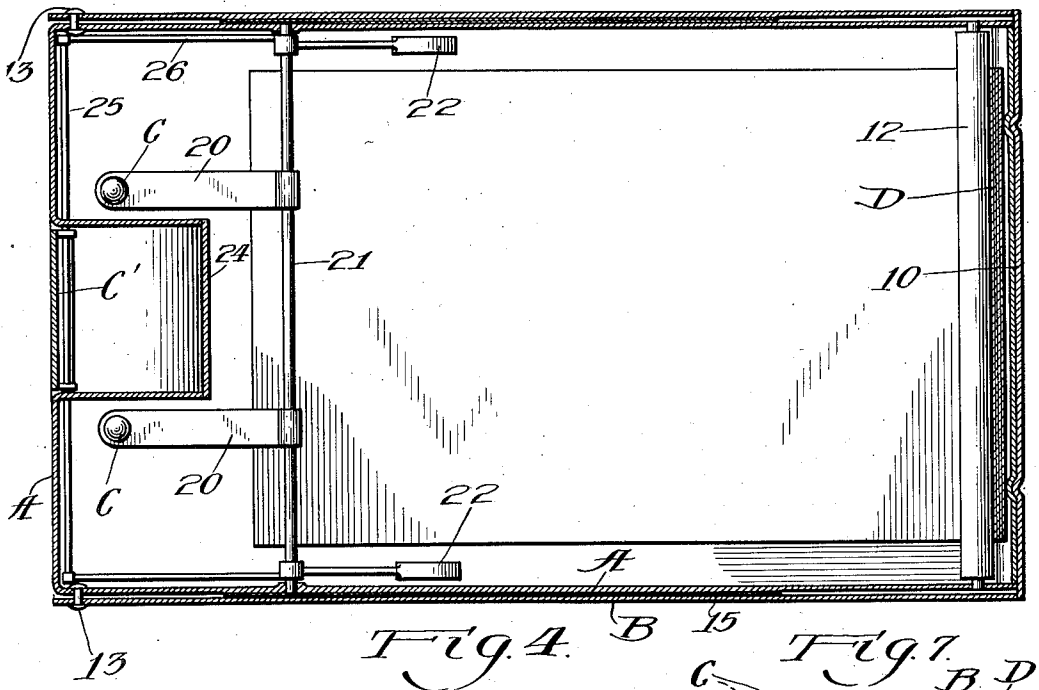


Fig. 4.

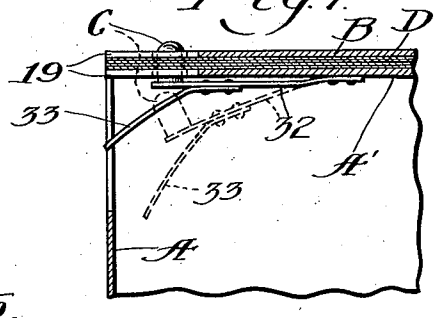


Fig. 7.

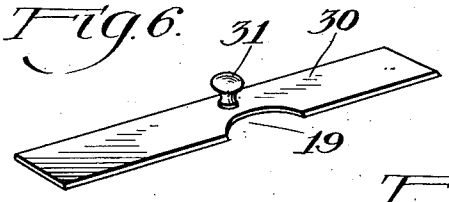
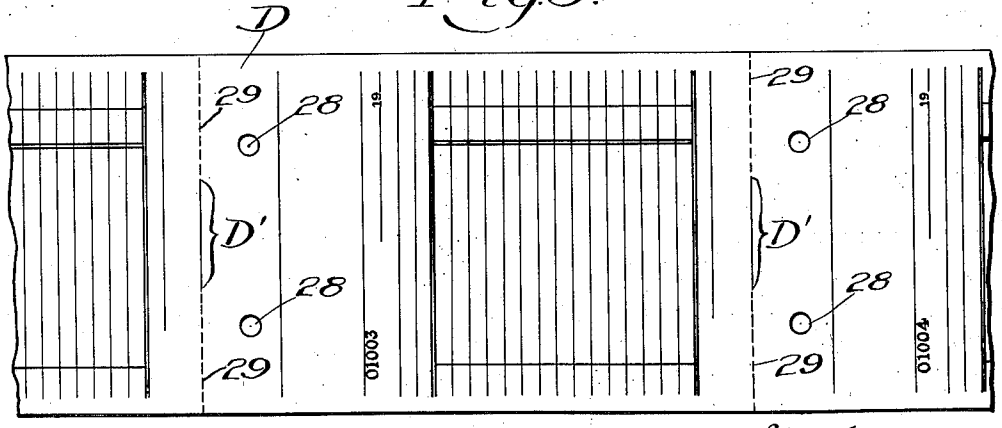


Fig. 6.

Fig. 5.



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1,873,489

UNITED STATES PATENT OFFICE

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DUPLICATING MACHINE AND STATIONERY FOR USE THEREIN

Application filed August 5, 1931. Serial No. 555,320.

This invention relates particularly to duplicating machines provided with a special tear-off blade, and to continuous-form stationery adapted for use in connection with the special blade.

The primary object of the invention is to provide a simple type of continuous-form stationery in which the forms may be torn on a blade provided with a finger opening, and without having the line of separation follow the contour of the opening in the blade.

In accordance with a preferred embodiment of the invention an autographic register is provided at its front end with a notched tear-off blade, under which continuous form stationery may be led. The continuous-form stationery is provided with lines of weakening between the sets of forms, and the central portion of the lines is wholly cut through so as to bridge the notched portion of the blade. After one set of forms has been separated, the succeeding set may be grasped, at the notch in the blade, and advanced to tearing position.

The invention is illustrated in a preferred embodiment in the accompanying drawings, in which—

Fig. 1 is a broken perspective view of an autographic register embodying the invention; Fig. 2, a broken longitudinal sectional view, taken as indicated at line 2—2 of Fig. 1; Fig. 3, a broken sectional view similar to Fig. 2, showing the operation of the register pins; Fig. 4, a plan sectional view, taken as indicated at line 4 of Fig. 2; Fig. 5, a broken plan view of continuous-form stationery for use in connection with a notched tear-off blade; Fig. 6, a perspective view of a modified form of tear-off blade; and Fig. 7, a modified device for depressing the register pins.

In the construction illustrated A designates a frame or casing of an autographic register provided with a platen A′; B, a cover member affording a tear-off blade; C, yieldingly urged register pins actuated by a swinging member C′; and D, continuous-form stationery provided with cuts or incisions D′.

The casing A may be of any suitable construction, and forms a housing for a packet of continuous-form stationery. The top portion A′ serves as a platen, and the rear portion is provided with a door 10, which is hinged to the lower portion of the casing by a pivot 11, which permits a stationery packet to be inserted into the casing. A roller 12 is journaled in the side walls of the casing and serves to guide the stationery to the platen.

The cover member B is pivoted to the front portion of the casing by pivots 13 and has an open area 14 to permit writing on the underlying forms. The lateral margins 15 are turned downwardly and serve to grip the marginal portions of carbon sheets 16 which are interleaved with the strips. The rear marginal portion is also turned downwardly and is provided with a notch 17 which engages a companion notch 17ª in the door 10, and serves to releasably hold door in closed position. A pair of guide-pins 18 are mounted on the cover and serve to keep the forms in transverse alignment, and spring presser-members 18ª serve to press the stationery against the platen. The front edge of the platen A′ and cover member B are each provided with a finger-opening or notch 19 to permit the ends of the strips to be grasped.

Register pins C are supported on arms 20 which are carried by a rock-shaft 21 journaled in the sidewalls of the casing. The pins are shown urged upwardly through openings in the platen and cover, by the action of weights 22 on the rock-shaft, but springs or other means may be used if desired. The swinging gate member C′ is pivoted to the casing at 23 and is free to swing rearwardly through an opening in the front of the casing which is enclosed by a wedge shaped housing 24. Slots 24ª are provided in the closure to permit a rod 25 to be swung rearwardly with the gate C′ to which it is attached, and a pitman 26 links the rod to the rock-shaft actuating arm 27.

The continuous-form stationery D is shown folded zig-zag to form a packet. The forms are provided at spaced intervals with

register perforations 28 adapted to be engaged and aligned by the register pins C. The individual forms are divided by lines of weakening 29 which are interrupted by the incision D′, which is cut to bridge the gap in the tearing-blade. The lines of weakening, while desirable, are not essential to the invention.

The use of a notched tear-off blade is not limited in any way to an autographic register but may be employed in many other machines. Fig. 6 illustrates a modification in which the blade 30 is a separate member provided with a handle 31. The blade may be pressed against stationery during a tearing operation.

Fig. 7 is a modification showing a simplified mounting for the pins C. The pins are carried by spring arms 32 which are riveted to the lower side of the platen. A lip-like member 33 is rigidly attached to the arms and is arranged so as to be depressed by the operator's finger in the act of reaching into the notch in the blade.

In operating the machine shown in Figs. 1–4 the operator presses the gate C′ rearwardly, as shown in Fig. 3, in the act of grasping the ends of the stationery. This causes the pins to be withdrawn from the holes in the strips and as the strips are drawn out of the front of the machine the gate swings forwardly and permits the pins to bear against the lower surface of the paper until the next set of register apertures come into engagement with them. The line of weakening 29 is then at the tear-off edge and the forms may be severed by an upward jerk, the tear following the lines of weakening and jumping the gap in the blade due to the incision D′. The operation is so simple that it can be performed by one hand without difficulty.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, but the appended claims should be construed as broadly as permissible, in view of the prior art.

What I regard as new, and desire to secure by Letters Patent, is:

1. In combination: a tear-off edge having a finger-opening therein; and continuous-form stationary provided at the junctions between slips with incisions adapted to bridge the notch in said blade.

2. In combination in a duplicating machine: a frame equipped with a platen and in front thereof with a tear-off blade provided with an open finger-recess; retractable, normally projected register pins disposed near the front end of said platen; and pin-retracting means having a pivoted actuating member movable by the operator's finger in the operation of taking hold of stationery engaged by said pins.

3. A duplicating machine comprising: a frame provided with a platen; a notched tear-off blade near the front of said platen; yieldingly urged pins adjacent said platen and adapted to engage register perforations in strips led from said platen under said blade; and movable means disposed beneath the notch in said blade for withdrawing said register pins, said means being adapted to prevent grasping of strips in the notched portion of blade prior to the moving of said pins.

4. In an autographic register: a frame provided with a platen; a notched tear-off blade mounted on said frame in front of said platen under which continuous-form stationery may be led from said platen, said stationery being provided with cuts adapted to span said notch; register pins yieldingly urged against said strips and adapted to enter register perforations with which the forms are provided; and a swinging gate disposed beneath said notch and linked to said pins so as to withdraw the pins when swung back to give access to said notch.

5. A tear-off blade having a tearing-edge provided with an open finger-notch, said tearing-edge serving to assist in tearing the connected portions of strips comprising slips having cuts between said slips, and said finger-notch permitting grasping of the ends of said strips after a tearing operation.

6. An autographic register comprising: a casing provided with a platen having at its front end a finger-recess; a device mounted in said casing below said platen equipped with projected, depressible register-pins working through perforations in said platen; and means for actuating said device to depress said pins, comprising a manually actuated member forming a movable section of the front wall of said casing.

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