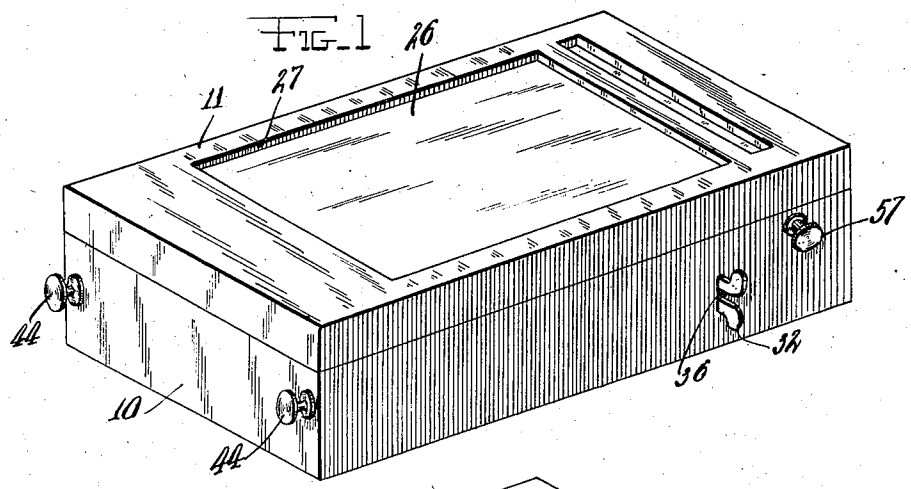
July 29, 1924. 1,502,810

P. DI COSSIMO

MULTIGRAPHING MACHINE

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FIG. 1



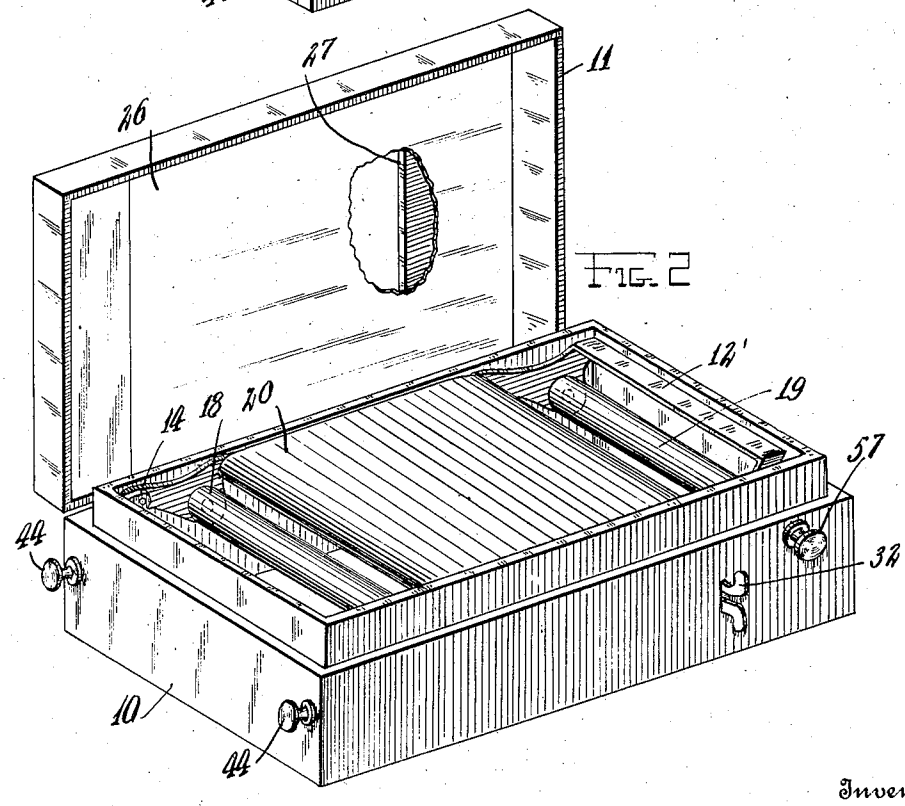


FIG. 2

Inventor
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Attorney

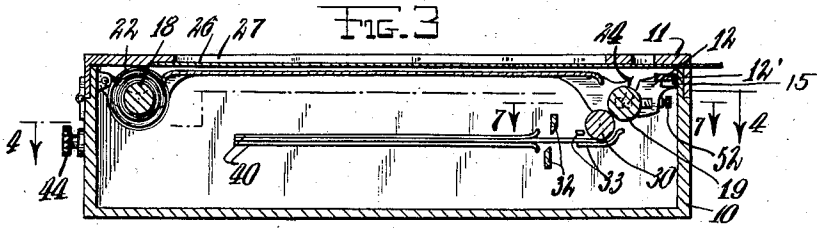
July 29, 1924. 1,502,810

P. DI COSSIMO

MULTIGRAPHING MACHINE

Filed May 7, 1923 2 Sheets-Sheet 2

FIG. 3



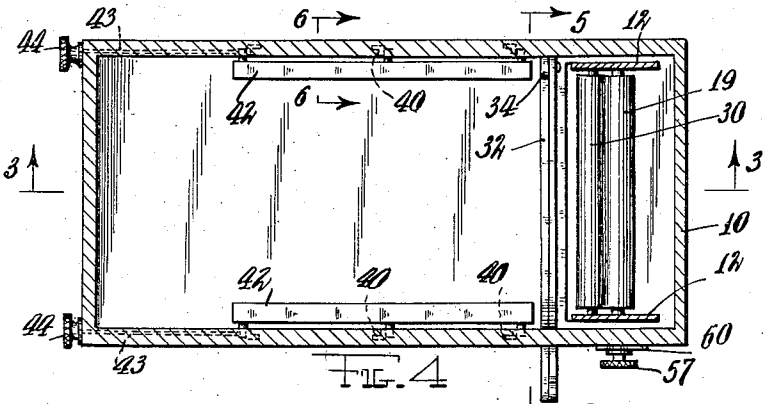


FIG. 4

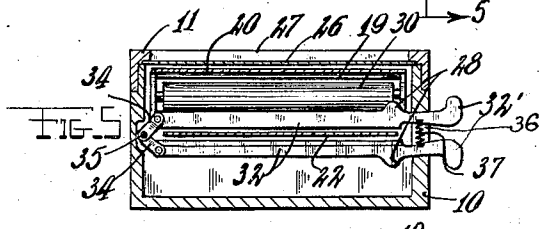


FIG. 5

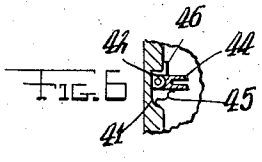


FIG. 6

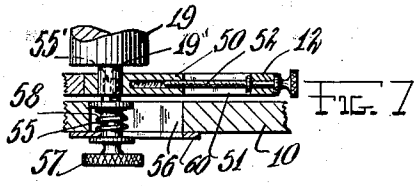


FIG. 7

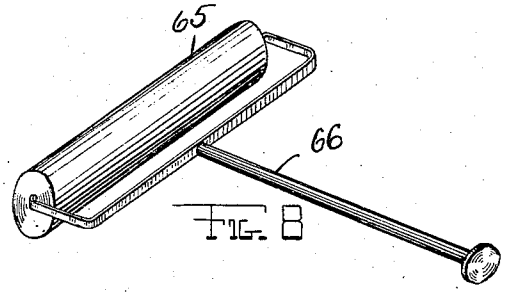


FIG. 8

Inventor

Pietro Di Cossimo

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Attorney

Patented July 29, 1924. 1,502,810

UNITED STATES PATENT OFFICE.

PIETRO DI COSSIMO, OF WEST PITTSBURGH, PENNSYLVANIA.

MULTIGRAPHING MACHINE.

Application filed May 7, 1923. Serial No. 637,166.

To all whom it may concern:

Be it known that I, PIETRO DI COSSIMO, a subject of the King of Italy, residing at West Pittsburgh, in the county of Lawrence and State of Pennsylvania, have invented certain new and useful Improvements in Multigraphing Machines, of which the following is a specification.

The invention relates generally to a multigraphing machine, and it has for an object to provide a novel and improved machine of this type arranged to impress successive portions of a web of paper, which is advanced as desired from a roll, a further object relating to the provision of means for cutting or severing the impressed portions into separate sheets.

For further comprehension of the invention and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

Fig. 1 of the drawings is a perspective view of my improved machine.

Fig. 2 is a similar view, but with the cover thrown back.

Fig. 3 is a longitudinal vertical sectional view, this view being taken on the line 3—3 of Fig. 4.

Fig. 4 is a horizontal sectional view taken on the line 4—4 of Fig. 3.

Fig. 5 is a transverse vertical sectional view taken on the line 5—5 of Fig. 4.

Fig. 6 is a fragmentary transverse vertical sectional view taken on the line 6—6 of Fig. 4.

Fig. 7 is a fragmentary horizontal sectional view taken on the line 7—7 of Fig. 3.

Fig. 8 is a perspective view of the reproducing roller.

As here embodied my improved machine comprises a shallow, elongated rectangular box 10 to which is hinged a cover 11. Within the box is hinged a frame comprising the side bars 12, which extend along the side walls of the box, and a cross bar 12′ which extends along one end wall of the box. The side bars 12 are hinged to lugs 14 at the opposite end of the box, so as to swing vertically, while the frame 12 is supported at its free end by lugs such as 15 on the end wall of the box on which the crosspiece 12′ rests. This frame 12 carries near its opposite ends a pair of transversely extending rollers 18 and 19 respectively which are suitably mounted in the side bars 12, while between these rollers a plate 20 extends across flush with the upper edges of the side bars, and slightly above the top edge of the box 10, this plate being formed integral with the side bars 12 if desired. This plate 20 forms the backing element for the paper which is to receive the impression and this paper which is indicated at 22, is wound on the roller 18, and passes along the top of the plate 20 and is received on the roller 19, or may be fed to the novel cutting device to be presently described. For ready removal or insertion of the rollers the side bars 12 are formed with slots 24 entered downward from the tops thereof to receive the trunnions of the rollers. The roller 19 is adapted to be rotated by a knob to be presently further referred to.

The cover 11 carries the usual waxed transfer paper which is indicated at 26 and which is entered from one end of the cover into a suitable slot or recess therein, this slot intersecting a large opening 27 formed in the cover to receive the impression roller.

I preferably arrange my improved machine to permit either of the paper being wound on the roller 19 after impression, or of being severed into separate sheets. To this end I mount in the box 10 a third transverse roller 30 which is located near the roller 19 and around which the paper may be directed to the severing device. This severing device comprises a pair of transverse knives 32 between which the paper passes as it leaves the roller 30, being guided between said knives by suitable guide members 33 at the side of the box. These knives are connected at one end to the ends of a pair of normally inclined links 34 pivoted as at 35 in the side of the box, the opposite ends of the knives extending through a vertical slot 36 in the side of the box and having handle elements formed thereon. These latter ends of the knives are pressed against the respective upper and lower ends of the slot 36 by an expansion spring 37 located between the knives, while the knives have cam elements 38 formed on their removed edges which are adapted to engage the ends of the slot 36 to move the knives toward one another when the knives are swung on the links 34.

Extending along the sides of the box 10 from points adjacent the knives 32 are a pair of channeled guides 40 which are lo-

cated in recesses 41 in the side walls of the box and which are hinged to bracket elements 42 therein. These guides have their hinge pintles extended as at 43 through the end wall of the box and formed with heads or knobs 44 whereby they may be turned. The guides 40 are held in normal position by means of springs such as 45 which bear upward thereagainst, each guide having an upstanding element 46 formed thereon and bearing on the wall of the box to limit upward swinging movement. When the device is to be arranged to cut the web into the sheets the roller 19 is in contact with the roller 30, while when the device is to be arranged to wind the sheet on the roller 19, the latter is moved away from the roller 30. To this end the trunnions 19′ of the roller 19 are engaged in blocks such as 50 slidable in slots such as 51 in the side bars 12, and having threaded therein the screws 52 swiveled in the said bars, so that by turning these screws the roller 19 can be moved toward or away from the roller 30.

In order to enable the roller 19 to be rotated in either position, while at the same time leaving it free when desired for swinging from the box 10 on the frame 12, I have formed one trunnion 19′ of the roller 19 with a square socket adapted to receive the squared end 55′ of a spindle 55 extending through a slot 56 in the side of the box and having a knob or head 57 on its outer end the spindle end 55′ being normally held in operative position by an expansion spring 58 coiled around the spindle and bearing between a collar 59 on the latter and a plate 60 fixed on the side of the box and having a slot therein registering with the slot 56 in the latter.

The manner of use of my improved device is as follows: The cover 11 is thrown back and the roll of paper placed in position adjacent the hinge end of the frame, the paper being passed over the plate 20 and around the roller 19 or the roller 30 as may be desired, the roller 19 being adjusted to the required position. The wax sheet 26 is written on and then inserted in the cover 11 and the usual impression made on the paper 22 by rolling over the latter a roller such as shown at 65 in Fig. 8 and which is provided with a handle 66. After the impression has been made, the paper is fed forward by rotating the knob 57, the paper either winding on the roller 19 or passing between the knives 32, suitable marks being provided on the paper if desired to indicate the proper positioning of the advanced portion which has received the impression. The paper after being fed around the roller 30 passes between the knives 32 and along the guides 40. The knives 32 are then pulled outward, causing the knives to cross one another and sever the paper. The guides 40 are then swung downwardly by turning the knobs 44 and the severed sheet is deposited in the bottom of the box.

While I have illustrated and described a preferred embodiment of my invention it is to be understood that I do not limit myself to the precise construction herein disclosed and that various changes and modifications might be made therein without departing from the spirit and scope of the invention as defined in the appended claims.

Having thus described my invention what I claim as new and desire to protect by Letters Patent of the United States is as follows:

1. A device of the class described comprising a box, a cover therefor adapted to rereceive an impression sheet, a frame hinged in said box to swing vertically, and a backing plate and paper holding rollers carried by said frame.

2. A device of the class described comprising a box, a cover therefor adapted to receive a transfer sheet, a frame hinged in said box to swing vertically, a backing plate and paper holding rollers carried by said frame, and paper severing means mounted in said box.

3. A device of the class described comprising a box, a member thereon adapted to hold a transfer sheet, a frame hinged in said box to swing vertically, a backing plate and paper holding rollers carried by said frame, and paper severing means mounted in said box, said paper severing means comprising a pair of knives arranged to swing toward and away from one another and having handle elements projecting from the box.

4. A device of the class described comprising a box, a cover therefor adapted to receive a transfer sheet, a frame hinged to said box to swing vertically, a backing plate and a pair of paper holding rollers carried by said frame, one of said rollers being adapted for manual rotation, a third roller in said box near the last named of said pair of rollers, a paper severing device located adjacent said third roller, and a pair of displaceable horizontal paper guides extending along the sides of the box from points near the severing device.

5. A device of the class described comprising a box, a cover therefor adapted to receive a transfer sheet, a frame hinged to said box to swing vertically, a backing plate and a pair of paper holding rollers carried by said frame, one of said rollers being adapted for manual rotation, a third roller in said box near the last named of said pair of rollers, a paper severing device located adjacent said third roller, and a pair of displaceable horizontal paper guides extending in the box from a point near the severing device, said guides being in the

form of channeled strips extending along the sides of the box and being adapted for downward swinging movement to discharge the paper therefrom.

6. A device of the class described comprising a box, a cover therefor adapted to receive a transfer sheet, a frame hinged to said box to swing vertically, a backing plate and a pair of paper holding rollers carried by said frame, one of said rollers being adapted for manual rotation, a third roller in said box near the last named of said pair of rollers, a paper severing device located adjacent said third roller, a pair of displaceable horizontal paper guides extending in the box from points near the severing device, and means for swinging the last named of said pair of rollers away from the third roller.

In testimony whereof I have affixed my signature.

PIETRO DI COSSIMO.