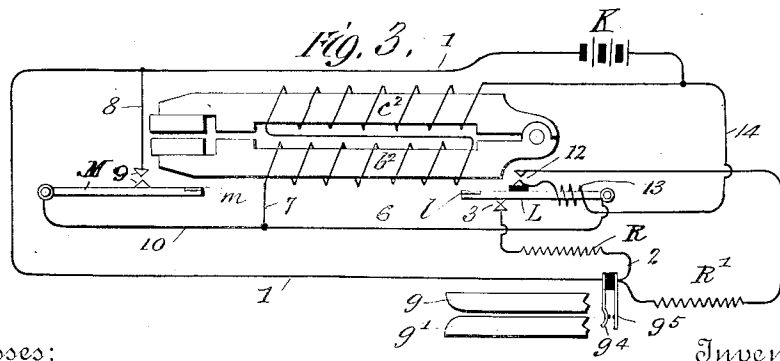
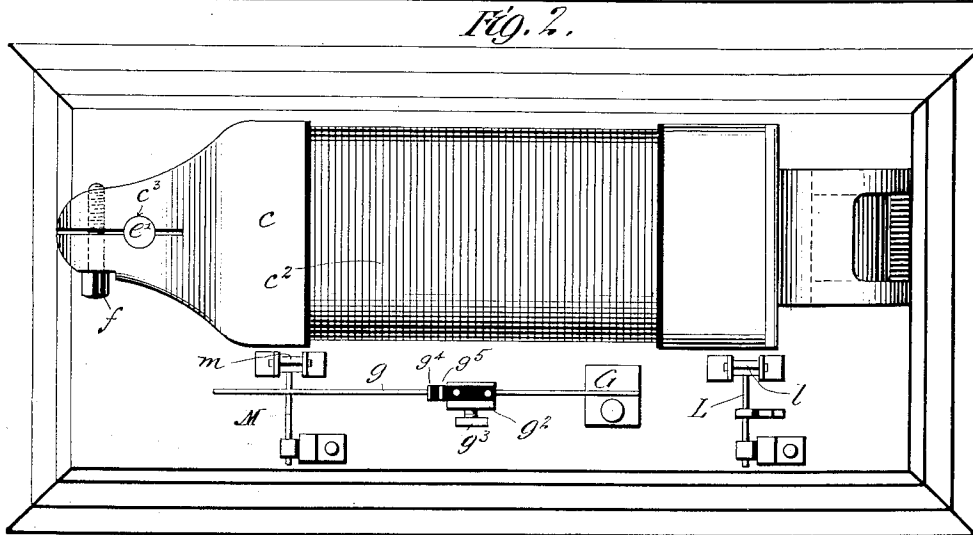
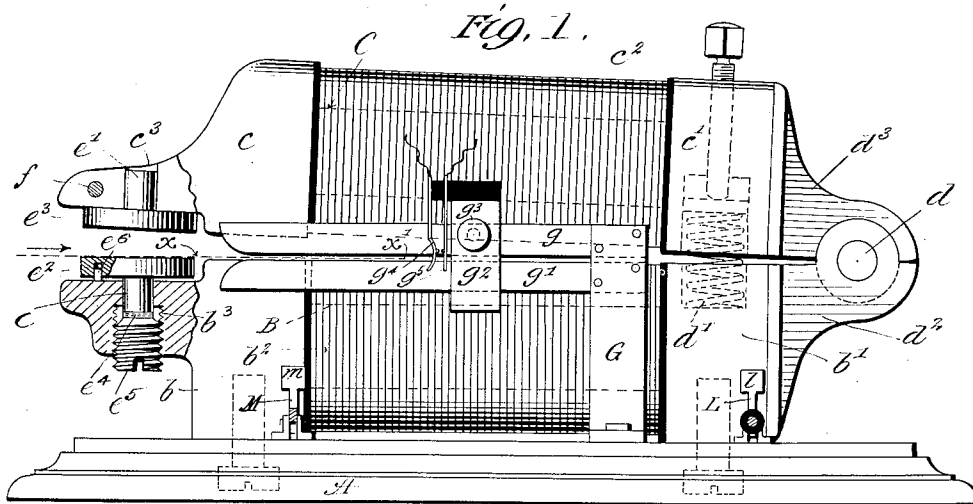


W. C. PRATT & A. J. PATES.  
STAMPING AND SEALING DEVICE.  
APPLICATION FILED MAR 23, 1909.

945,802.

Patented Jan. 11, 1910.



# UNITED STATES PATENT OFFICE.

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STAMPING AND SEALING DEVICE.

945,802.

Specification of Letters Patent.

Patented Jan. 11, 1910.

Application filed March 23, 1909. Serial No. 485,305.

*To all whom it may concern:*

Be it known that we, WILLIAM CLARENCE PRATT and ARTHUR JULIUS PATES, citizens of the United States, and residents of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Stamping and Sealing Devices, of which the following is a specification.

10 This invention relates to devices for stamping, printing or applying seals to legal or other documents, stock certificates and the like, the object being to provide means whereby such work may be done more expeditiously than by the usual hand operated and other devices in common use.

The invention consists primarily in the combination of two relatively movable jaws carrying cooperating dies for cutting, embossing or printing, and means for magnetizing said jaws so that they will be attracted toward each other with considerable force; and secondarily in means whereby the insertion between the jaws of the sheet to be stamped will effect the operation of the device.

The invention also consists in certain structural details which will be hereinafter described, reference being had to the accompanying drawings, in which:

30 Figure 1 is a side elevation of the device with parts in section; Fig. 2 is a plan of the same, and Fig. 3 is a diagrammatic view illustrating the arrangement of circuits for controlling the device.

Referring to the drawings by letters and numerals, A represents a base upon which is mounted in any suitable manner an iron body or lower jaw B, having heads *b* and *b'* at its extremities, and provided with an electric coil *b<sup>2</sup>* intermediate of said heads. C is a similar body or upper jaw, having heads *c* and *c'* corresponding respectively to heads *b* and *b'*, and a coil *c<sup>2</sup>*. These two bodies or jaws are hinged together as at *d*, an adjustable spring *d'*, preferably of steel, being located between the heads *b'* and *c'* to hold the same normally separated. Obviously the heads *b'* and *c'* may be hinged directly one to the other, but we prefer to attach to such heads extensions of brass or other non-magnetic material *d<sup>2</sup>*, *d<sup>3</sup>*, and hinge said extensions together, so that the aforesaid heads may not be normally in actual contact. In

this manner objectionable "sticking" or binding between the parts *b'* and *c'* due to their mutual magnetic attraction, and a consequent loss of power at the free end of the device is avoided. The forward or free ends of the jaws are provided with sockets *b<sup>3</sup>* and *c<sup>3</sup>* which are entered by the shanks *e*, *e'*, respectively, of the dies *e<sup>2</sup>* and *e<sup>3</sup>*. The shank of the die *e<sup>2</sup>* in the lower jaw rests upon a washer *e<sup>4</sup>*, of leather or other suitable material, which in turn is supported upon the end of screw *e<sup>5</sup>*, by which the die may be adjusted vertically. A pin *e<sup>6</sup>*, projecting upwardly from the lower jaw, enters a hole in the underside of die *e<sup>2</sup>* and prevents the latter from turning axially.

Obviously die *e<sup>3</sup>* may be provided with means for adjustment, if desired, but we have found in practice that the adjustment of one die only is quite sufficient and we prefer to mount the upper die *e<sup>3</sup>*, so that it will seat solidly against the under face of the forwardly projecting end of the upper jaw, as clearly shown in Fig. 1; said jaw being split as shown in Fig. 2 and provided with a laterally extending screw *f* whereby the shank *e'* may be tightly gripped.

G is a post supporting two horizontal, parallel strips *g* and *g'*, slightly spaced apart, the space being approximately in the same horizontal plane as the upper face of the lower die *e<sup>2</sup>*. A stop-block *g<sup>2</sup>* is slidably mounted on said strips, and may be secured at any desired position thereon by the set screw *g<sup>3</sup>*. Stop-block *g<sup>2</sup>* carries two insulated spring contacts *g<sup>4</sup>* and *g<sup>5</sup>*, normally open, but adapted to be closed by slight pressure.

The dotted line *x* represents a sheet upon which it is desired to operate, said sheet lying between the dies and between the strips *g* and *g'*, which latter serve as guides for the paper and direct the same against the contact spring *g<sup>4</sup>*. Sheet *x* is illustrated as in the act of moving toward the stop-block. When the forward edge of the sheet impinges against the spring contact *g<sup>4</sup>*, it will cause the latter to engage contact *g<sup>5</sup>*, whereupon an electric circuit will be completed, which, in a manner to appear presently, will operate certain other circuits and cause the dies to be moved suddenly together and impress the seal. Obviously the location of the impression on the sheet relative to the

edge  $\alpha'$  thereof, may be determined by adjusting the stop-block  $g^2$  forwardly or backwardly.

L and M denote pivoted levers having armatures  $l$  and  $m$ , and located adjacent the heads  $b$  and  $b'$ , respectively, of lower jaw B. The free ends of said levers are adapted to make and break certain electrical circuits as hereinafter described.

Referring to Fig. 3, K represents a battery or other source of electrical energy which is connected by wire 1 to contact  $g^4$ . From contact  $g^5$  a wire 2 leads through resistance R to contacts 3, pivoted lever L, wire 6, wire 7, coils  $b^2$ ,  $c^2$ , back to battery. When contacts  $g^4$ ,  $g^5$  are closed, a current is sent through the coils which owing to resistance R is too weak to actuate armature  $l$  but is of sufficient strength to attract armature  $m$  and close a circuit from wire 1 to wire 8, contacts 9, lever M, wire 10, wire 7, coils and battery, cutting out resistance R and sending full battery strength through the coils and causing the jaws to close and impress the seal. Following the closing of contacts 9 the lever L will be attracted, breaking the first described circuit at 3, and completing another circuit from wire 1, contacts  $g^4$ ,  $g^5$ , resistance R', contacts 12, small coil 13 on lever L, and by wire 14 to battery.

In closed condition the jaws are separated only by the thickness of sheet  $\alpha$ , so that the moment said jaws come together, a practically closed circuit for the magnetic flux is established. This causes the attractive force of the heads or poles  $b$  and  $b'$  to weaken, whereupon lever M drops, opens the circuit at 9 and permits spring  $d'$  to restore the jaws to open relation. Lever L, however, will remain in attracted position during this action, owing to the energization of its own coil 13, and will preserve the contact at 12 and the break at 3 until the sheet  $\alpha$  has been withdrawn and the circuit broken at  $g^4$ ,  $g^5$ . By this arrangement closure of the circuit at  $g^4$ ,  $g^5$  will result in but a single actuation of the jaws instead of repeated actuations as would probably occur if the circuit from  $g^5$  led directly to battery.

While we have described a specific construction and arrangement of parts, and a particular manner of controlling the operating circuits therefor, we wish it to be clearly understood that our invention is in no wise limited to the same. The invention is obviously capable of a variety of embodiments, and many changes both structurally and electrically may be made without departing from the spirit thereof.

It will be observed that by our construction we provide a very simple and comparatively powerful device. The lower or sta-

tionary member is fastened to the base with its magnetic head pieces  $b$  and  $b'$  resting directly on the base, and these magnetic heads or pole pieces are formed on the core of the coil. The upper member or jaw is constructed in the same manner and is hinged directly on top of the lower member at one end by means of a hinge constructed of non-magnetic metal, and a spring for normally separating the jaws is housed between the magnetic heads of the two members. The dies are carried directly on the forward heads of the two magnets. In this way, as stated, a very simple and powerful apparatus is produced.

Having described our invention, we claim:

1. A stamping or sealing device comprising two relatively movable jaws, dies carried thereby means for magnetizing said jaws so that they shall be mutually attracted, a guide-way composed of parallel bars located in alinement with said dies, a combined stop and circuit closer slidably mounted on said bars and means whereby said stop and circuit closer may be locked at various points along said bars.

2. A stamping or sealing device comprising two relatively movable jaws carrying dies, coils for magnetizing the same so that they will be mutually attracted, an electric circuit, a circuit closer and an automatic means adapted to cut-out said coils after each closing action of said jaws.

3. In combination, a base a stationary electro magnet having enlarged heads at the ends of its core said heads resting upon the base, a similarly constructed electro magnet mounted directly on said first named magnet, non magnetic means at one end for hinging the two magnets together, said means being attached to the enlarged heads, forward projections at the other ends of the magnets carrying coacting dies, a spring arranged between the heads at the hinged end and enclosed in recesses in said heads, an electric circuit including said magnets.

4. In combination, a pair of hinged electro magnets provided with co-acting dies, a main electric circuit including the coils of said magnets, a battery, a circuit closer and a resistance, and a shunt circuit including a magnetic circuit closer adapted to be actuated by one of said magnets, for the purpose set forth.

Signed at New York in the county of New York and State of New York this 8th day of March A. D. 1909.

WILLIAM CLARENCE PRATT.  
ARTHUR JULIUS PATES.

Witnesses:

HENRY HERZ,  
WILLIAM LARY.