

(No Model.)

J. E. BATES.
HAND STAMP.

No. 542,131.

Patented July 2, 1895.

Fig. 1.

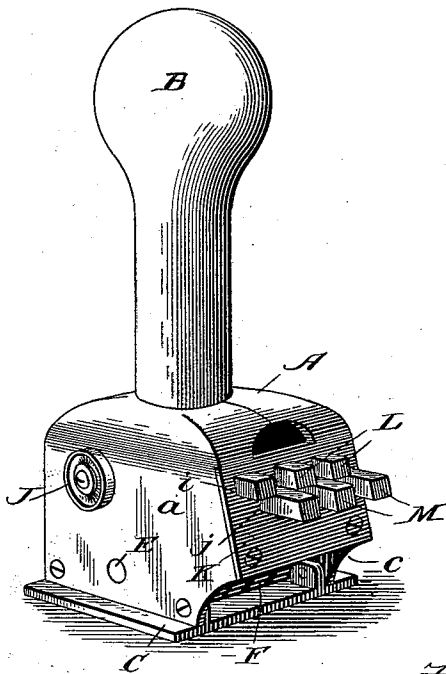


Fig. 2.

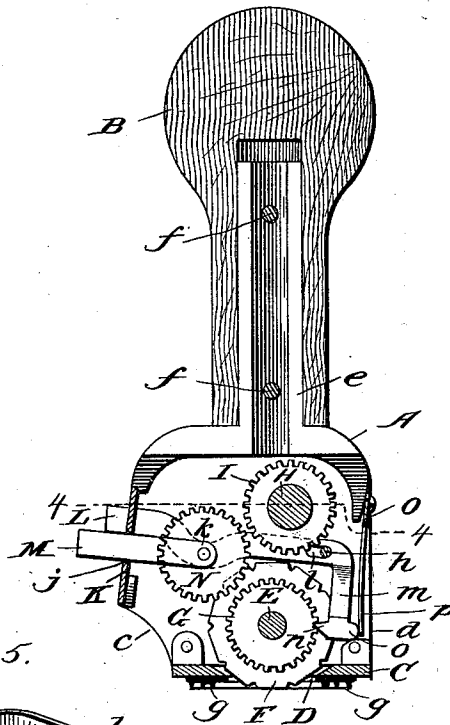
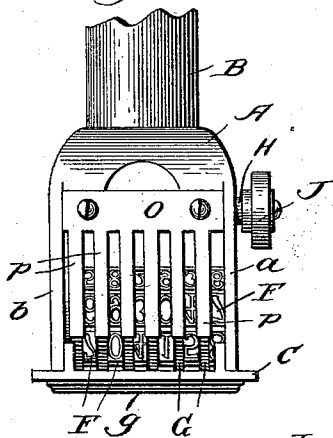


Fig. 3.



$\mathcal{M}$ Fig. 5.

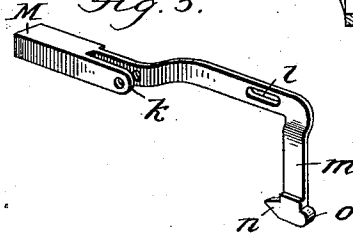


Fig. 4

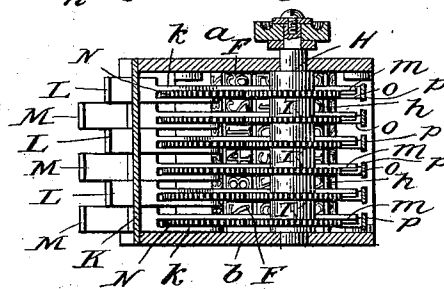
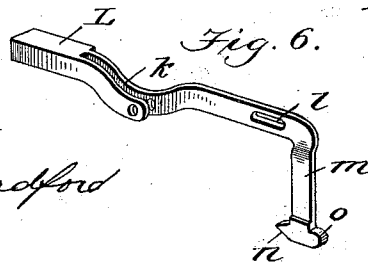


Fig. 6.



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HAND-STAMP.

SPECIFICATION forming part of Letters Patent No. 542,131, dated July 2, 1895.

Application filed April 26, 1895. Serial No. 547,244. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. BATES, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Hand-Stamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to printing devices, and has particular reference to hand-stamps of the adjusting order, together with means whereby the type or printing characters may be arbitrarily adjusted.

More particularly stated, the invention comprises a series of type-wheels loosely mounted upon a shaft common to all, a corresponding series of operating-wheels fixed upon a second shaft, key-controlled intermediate wheels adapted to engage the aforesaid wheels, and means of automatically locking the type-wheels in operative positions.

The invention will be hereinafter described, and pointed out in claims following.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of my improved stamp; Fig. 2, a central vertical section thereof; Fig. 3, a rear elevation of the device, having its handle removed or broken away. Fig. 4 is a horizontal sectional view on the line 4 4, Fig. 2; and Figs. 5 and 6 are detail perspective views of the upper and lower keys or intermediate wheel-carrying levers.

Reference being had to the drawings, in which like letters indicate like parts wherever employed, A represents the hollow shell or case of my invention, which is preferably formed in two parts, of brass or other suitable material, having depending sides *a b* and open ends *c d*, as shown.

B indicates a handle, which may be of ordinary construction and which serves to join and retain in place the upper portions of case A by inclosing an upwardly-extending stem or stems *e*, to which the handle may be fastened by rivets or screws *f* passing there-through.

C is a base-plate connecting the lower extremities of sides *a b* and bearing upon its face any desirable characters for printing purposes,

as *g*, a rectangular slot or opening D being formed in the plate for exposing to action a series of type-wheels when the stamp is in use.

Within the sides *a b* is secured a shaft E, upon which are loosely mounted a series of type or printing wheels F, bearing upon their periphery distinct printing characters, in the present instance Arabic numerals from "0" to "9," inclusive, being shown, while to one side of each wheel F is cut or attached a gear-wheel G, also centering upon the shaft E. Above this shaft and parallel therewith is an operating-shaft H, journaled in the sides *a b* and having keyed thereto a succession of gear or drive wheels I, corresponding in number and location with the gears G below, said shaft projecting through side *a* of case A and terminating in a milled thumb-knob or button J, by which the shaft and its wheels I may be freely rotated in either direction. At a point between the aforesaid shafts is located a small guide-rod *h*, secured in the sides of the case A, the purpose of which will later appear.

The open end *c* of case A is partially closed by a key-board K, affixed therein, the latter being broken by an upper and lower row of openings *i j*, arranged in stagger form, in which are supported and through which are projected the outer ends of a series of longitudinally-movable controlling-keys L M, respectively. Back of the key-board K each of the keys L and M are bifurcated as at *k*, and in such bifurcations are journaled intermediate pinions N, each adapted to move its respective key L or M, while said keys are further supported near their opposite ends upon the guide-rod *h*, resting in an elongated slot *l*, formed at this point, thus providing for a longitudinal movement of the keys with relation to their supports. Immediately back of slots *l* keys L M are given an angular bend *m* and terminate below in an enlargement constituting on the one side dogs *n* and on the opposite side lugs *o*. These keys L and M correspond in all respects, except that the outer ends of the former are elevated from their points of engagement with pinions N in order that they may register with their respective openings *i* in the key-board K.

O indicates a spring-plate partially closing

the end opening d of case A, in which position it is secured, as clearly shown by Fig. 3, said plate being formed into a number of depending leaf-springs p in alignment with keys L M and exerting a constant pressure upon the lugs o thereof.

This being the construction of my invention in its preferred form it will be observed that the springs p perform the double function of retaining-dogs n normally in engagement with the teeth of wheels G for the purpose of locking the type-wheels F in predetermined positions and holding the intermediate pinions N upon keys L M normally out of engagement with the wheels G and I, as shown by Fig. 2.

The use and operation of my improved stamp are as follows: It being desired to arrange or rearrange the printing characters upon a particular type-wheel F the corresponding key L or M is depressed against the action of spring p . This movement serves to disengage dog n from its respective gear G, and simultaneously therewith throw the teeth of intermediate pinion N into mesh with those of gear-wheels I and G in the same vertical plane. A rotation of thumb knob or button J now causes one of the drive-wheels I turning through pinion N to the gear G, attached to or forming part of the type-wheel, which latter can then be freely rotated by action of the train above described until the desired character is projected through slot D in base-plate C. In like manner several or all of the type-wheels may be manipulated simultaneously or dissimultaneously, thus placing them under complete and ready control of the operator.

This being substantially the construction and operation of my invention it will be understood that many minor changes in form and arrangement of parts may be made by persons skilled in the art and substituted for those herein shown and described without departing from the spirit of my invention—as, for instance, friction-wheels may be substituted for the gear-wheels G, I, and N shown; but,

Having thus described my invention, what I claim is—

1. In a hand stamp the combination with a type-wheel, of a drive wheel in juxtaposition thereto, and an intermediate wheel adapted to be thrown into and out of engagement with the aforesaid wheels, substantially as described.

2. In a hand stamp the combination with a type-wheel, of a drive wheel in juxtaposition thereto, an intermediate wheel adapted to be

thrown into engagement with the aforesaid wheels, and means for holding the wheels normally out of engagement, substantially as described.

3. In a hand stamp the combination with a type-wheel, of a drive wheel in juxtaposition thereto, and an intermediate wheel journaled upon an operating key whereby it is thrown into and out of engagement with the aforesaid wheels, substantially as described.

4. In a hand stamp the combination with a type-wheel, of a drive wheel in juxtaposition thereto, a spring pressed operating key, and an intermediate wheel carried by said key adapted to engage the aforesaid wheels, substantially as described.

5. In a hand stamp the combination with a type-wheel, of a drive wheel in juxtaposition thereto, an operating key carrying an intermediate wheel for engaging the aforesaid wheels, a dog located upon the operating key, and a spring for holding said dog normally in engagement and the intermediate wheel out of engagement, substantially as described.

6. In a hand stamp corresponding series of type-wheels, drive wheels and intermediate wheels in vertical alignment, in combination with a series of operating keys whereby said wheels are thrown into engagement, and means for retaining all of said wheels normally out of engagement, substantially as described.

7. In a hand stamp the combination with a case, of a series of type-wheels loosely journaled upon a shaft fixed therein, a corresponding series of drive wheels keyed to a shaft journaled in said case, an equal number of longitudinally movable operating keys supported in the case and carrying intermediate wheels adapted to engage the aforesaid wheels, dogs at the extremities of the keys for locking the type-wheels, and springs for pressing said dogs and holding the intermediate wheels normally out of engagement, substantially as described.

8. In a hand stamp the combination with a case of corresponding series of type-wheels, drive wheels and intermediate wheels each provided with ratchet teeth in vertical alignment, a corresponding series of operating keys whereby said wheels are thrown into engagement, and means for retaining all of the wheels normally out of engagement, substantially as described.

In testimony whereof I subscribe my signature in presence of two witnesses.

JNO. E. BATES.

Witnesses:

G. B. DONALDSON,
E. B. BATES.