(Model.) 2 Sheets—Sheet 1.

M. L. LUEBBEN.

HAND STAMP.

No. 411,158. Patented Sept. 17, 1889.

Fig. 1.

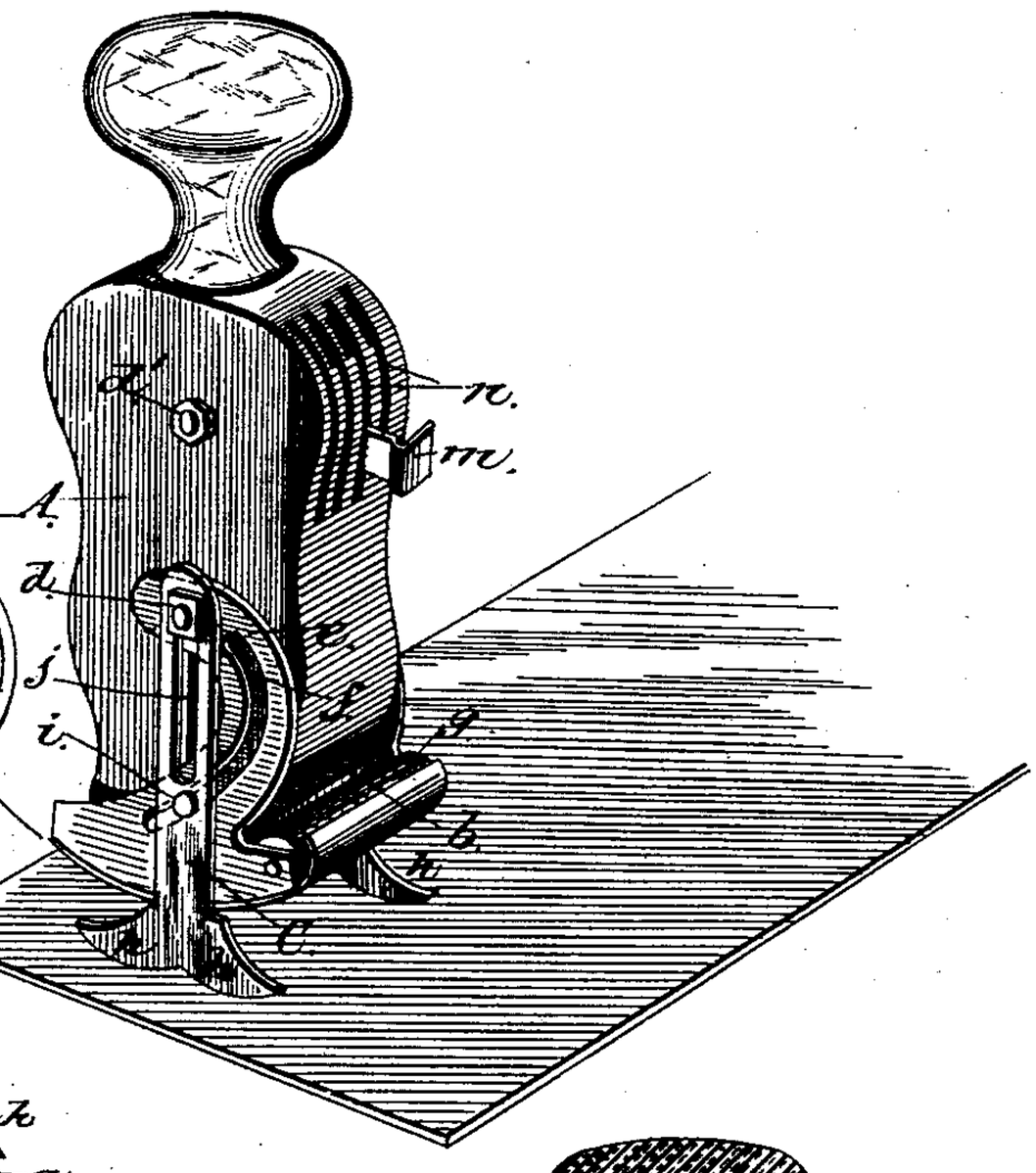


Fig. 4.

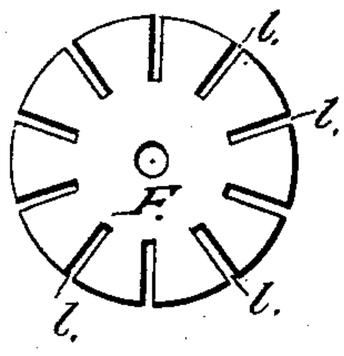


Fig. 5.

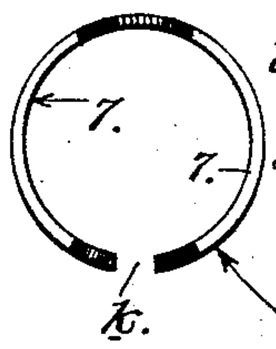


Fig. 2.

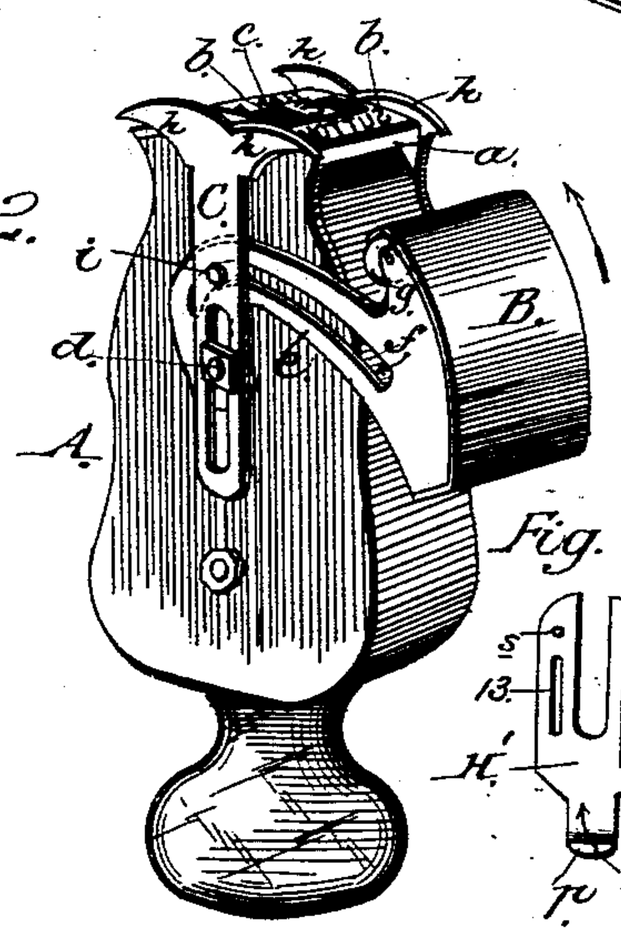


Fig. 6.

Fig. 3.

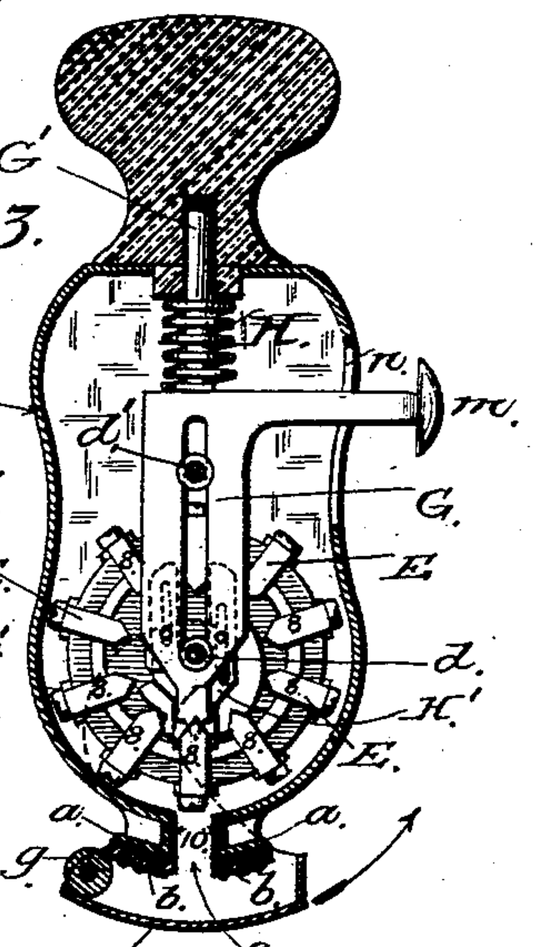


Fig. 7.

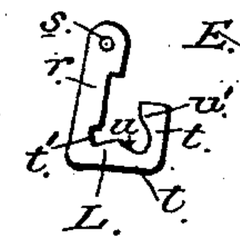
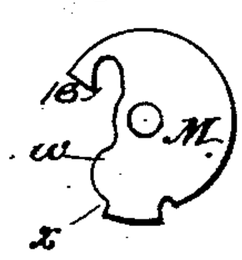


Fig. 8.



WITNESSES

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(Model.) 2 Sheets—Sheet 2.

M. L. LUEBBEN.

HAND STAMP.

No. 411,158. Patented Sept. 17, 1889.

Fig. 9.

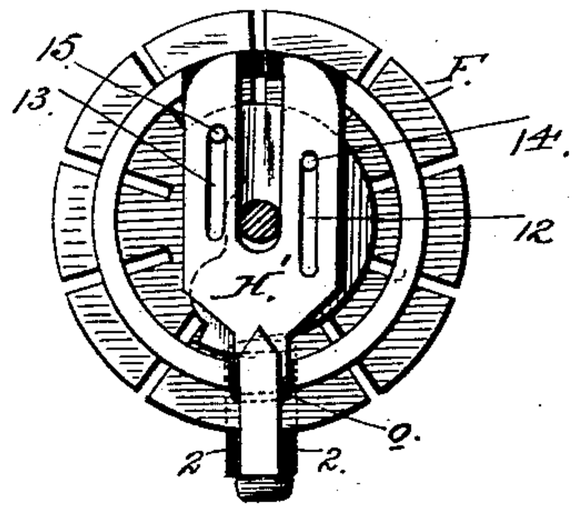


Fig. 12.

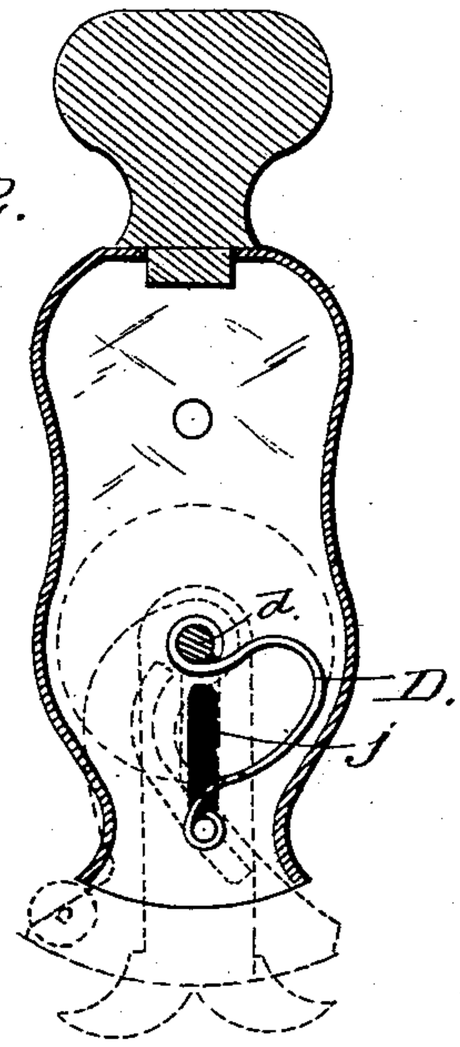


Fig. 10.

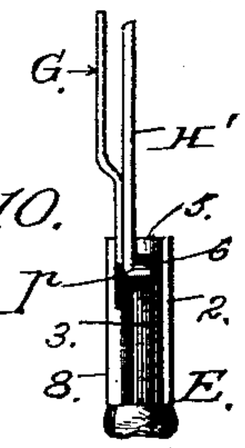


Fig. 11.

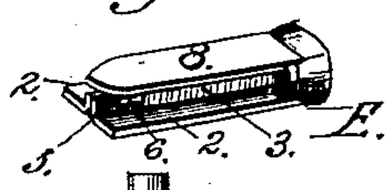
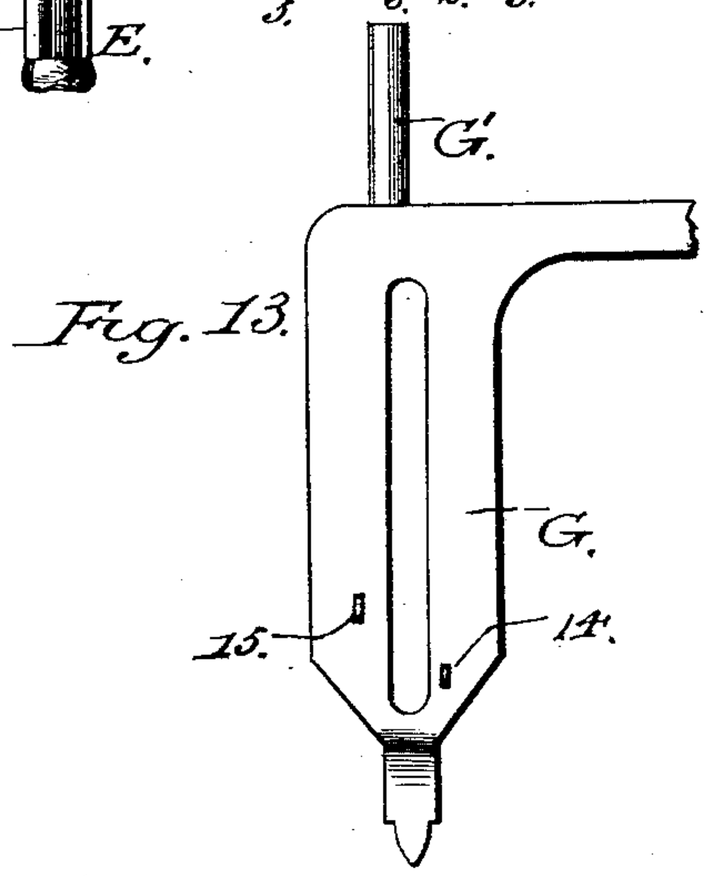


Fig. 13.



WITNESSES

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UNITED STATES PATENT OFFICE.

MELCHIOR L. LUEBBEN, OF SUTTON, NEBRASKA.

HAND-STAMP.

SPECIFICATION forming part of Letters Patent No. 411,158, dated September 17, 1889.

Application filed July 17, 1888. Serial No. 280,166. (Model.)

To all whom it may concern:

Be it known that I, MELCHIOR L. LUEBBEN, a citizen of the United States, residing at Sutton, in the county of Clay and State of Nebraska, have invented certain new and useful Improvements in Hand-Stamps, of which the following is a full and clear description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a perspective view of a hand-stamp embodying my improvements. Fig. 2 is a similar view showing the stamp inverted and the inking-roller frame thrown back to expose the stamping-surfaces. Fig. 3 is a sectional view showing one of the numbering-wheels, the movable dies, and the mechanism for projecting and withdrawing said dies and actuating the wheel. Figs. 4 to 13, inclusive, illustrate details of constructions to be hereinafter described.

My invention relates to hand-stamps employing a fixed stamping-surface and a series of rotating wheels or disks provided with removable dating or numbering dies carrying rubber or other characters; and my invention consists in the constructions and combinations of devices which I shall hereinafter fully describe and claim.

To enable others skilled in the art to which my invention appertains to make and use the same, I will now describe a preferred construction and indicate a manner in which the same is carried out.

In the said drawings, A indicates a casing of suitable design and construction adapted to contain the working portions of my stamp, and provided at its top with a suitable handle, by which the stamp may be held and operated. The lower portion of the casing is provided with a curved face *a*, to which is appropriately secured a rubber or other printing surface *b*, containing the name, business, address, or other desired matter, and the central portion of the curved face and printing-surface is slotted at *c* for the reception of suitable dies containing dates or numbers, which may or may not be used, as desired, in connection with the subject-matter on the fixed stamping-surface *a*. A shaft *d* passes transversely through the casing A, with its ends projecting beyond the sides thereof, and on these extended ends the curved arms *e* of the movable ink-roller frame B are mounted, the said arms being provided with curved slots *f*, and the lower portion of the frame B is curved to correspond with the curvature of the lower face of the casing, and has mounted between its sides the inking-roller *g*, which is adapted to pass across the fixed printing-surface *b* and to properly ink the characters or figures thereon.

The movement of the ink-roller frame B, by which its roller is caused to pass over the curved face of the fixed printing-surface, is produced by the action of suitable vertically-arranged plates C on each side of the casing, provided with slots, through which the ends of the shafts *d* pass and are afterward secured by nuts, as shown. The lower portions of the plates C are extended to form feet *h*, which are designed to rest upon the paper or other article to be stamped, and each plate C is provided with an inwardly-projecting pin *i*, which passes through the curved slots *f* in the arms *e* and through other slots *j* in the sides of the casing, so that their inner ends may be engaged by one end of springs D, located within the casing, while the other end of said springs may be securely attached to some portion of the casing or to the shaft *d*, if desired, as shown in Fig. 12.

From the description of the parts thus far enumerated it will readily be seen that in its normal position the frame B incloses the lower curved face of the casing and the fixed printing-surface, and thereby protects the latter from dust or injury, while the lower portions of the plates C extend some distance below the bottom of said frame. Now, in order to cause the printing-surface to impress its subject-matter upon paper or other surface, the operator places the foot portions *h* over the space to be stamped and then presses upon the handle. The pressure upon the latter causes the plates C to move vertically, and their pins *i*, acting upon the curved walls of the slot *f*, force the frame B to one side, thereby causing the inking-rollers to pass across and ink the characters on the rubber inking plate or surface *b*, the said frame being carried by the action of the vertically-moving plates far enough in the rear of the stamp to permit the printing-surface to come

against the paper to be stamped. After the impression has been made, the operator releases the pressure upon the handle, and the springs D, acting upon the pins, force the plates C downward, and they in turn cause the frame to be returned to its normal position under the curved face of the stamp.

Upon the shaft *d*, and within the casing, are mounted the series of wheels which carry the movable dies E, each of which is provided with a number, date, or other appropriate character, and each wheel comprises certain devices for projecting and withdrawing these dies to meet existing circumstances.

Referring now to Fig. 3 and the details illustrated in Figs. 4 to 12, inclusive, F represents a disk whose periphery is formed with a series of radial slots *l*, and E indicates the dies, which are formed with or have secured to them independent numbers, dates, or other matter, the said dies being each formed with side wings 2, which pass behind one side of the disk, and with a central web or wall 3, which passes into one of the radial slots *l* in the disk, the inner end of said web or wall terminating in a projection 5, which forms between itself and the main portion of the web a recess or notch 6, in which is fitted a ring 7, (shown in Fig. 5,) whereby all the dies are held in their slots against displacement, the said ring, however, being provided with an opening *k*, through which the dies are projected when desired, and by means of which new dies may be inserted should the old ones become damaged or otherwise unfit for use.

The front wall 8 of each die is extended over and beyond the ring 7, and the latter is of slightly-reduced thickness for a short space upon each side of its opening, whereby a space is left between the ring and the wall 3 for the insertion of the lower end of a vertically-moving plunger G, which is slotted, upon the shaft *d*, and also upon a second shaft *d'*, passing transversely through casing and serving as a guide for the movement of the plunger.

Each plunger is preferably formed with an extension or stem G', which is encircled by a spiral spring H for returning the plunger after it has been forced up, and the body of the plunger near its upper portion is provided with a suitable finger *m*, which projects laterally through an elongated slot *n* in the front of the casing, so that it may be operated to withdraw the die, the said finger-piece when moved vertically one-eighth of an inch raising the plunger into the casing, so that the next impression will not indicate the number on the die. From this description it will be seen that when it is desired to use a number or date in connection with the subject-matter on the fixed stamping-surface the operator moves the wheel by means of the plunger until the desired die is in alignment with the slot in the bottom of the casing, and then releases the finger-piece to enable the spring H to force the plunger downward. As the plunger moves downward, its point or lower end, which projects back of the wall 8 of the die, forces the die out through the open side of the ring 7 and out of its radial slot in the disk F and into the slot in the center of the bottom of the casing and fixed printing-surface, the side wings 2 on the dies entering suitable grooves or guides 10, formed in the walls of said slots, whereby the die is securely held against side movement.

Immediately back of the plunger G is a plate H', slotted at one end, so that it may straddle the shaft *d*, and having its opposite end formed with a tongue *o*, whose width about equals the size of the opening *k* in the ring 7, within which it moves, the said lower end of the tongue being provided with the inward projection *p*, which occupies the notch 6 in the central web of the die previously occupied by the ring 7. Thus it is that when the disk F is moved to advance the die the latter is carried onto the cut-away portion of the ring 7, so that its notch 6 will ride over the projection or spur *p* on the tongue *o*, and come at rest at a point where the die, the tongue *o*, the point of the plunger, and the slots *k* are in direct alignment, so that when said plunger is operated its point is first projected back of the front wall of the die and then forces the die and plate H' from their positions, the die being forced through the slot *k* and the projection *p* remaining in the notch 6 to steady the die and also to draw the same upward into its slot in the disk F when the plunger is again elevated.

The plate H' is provided with slots 12 and 13, and the plunger G is provided with pins 14 and 15, which move in said slots, so that when the pins strike the ends of the slots the further movement of the plunger causes the plate H' to move with the plunger and to project or withdraw the die, as desired.

Between the plunger G and the plate H' is placed a lever or plate L, having a long arm *r*, pivoted to said plate at *s*, and a short arm *t*, against a recess *t'* in the lower face of which the pin 14 on the plunger G strikes during its upward movement, whereby the plunger, plate H', and the lever L are practically locked together, in which position they remain during the upward stroke of the plunger until a cam portion *u* on the short arm of the lever L strikes the shaft *d* and forces the lever to one side, thereby permitting the pin 14 to be released from its fixed engagement with the lever L to also enable the plunger to complete its upward stroke without affecting the positions of the plate H' and lever L. On the succeeding downward stroke of the plunger the pin 15, which is somewhat longer than the pin 14, whereby it may engage the disk M, rides along the inner wall of the long arm of the lever L until it strikes the short arm *t* at a point near the recess *t'*, when it begins to force the lever and its connected parts downward. The short arm of the lever L has

also a cam-surface *w'*, which engages the shaft *d*, so that when said lever is moved downward this cam-surface *w'* strikes the shaft, which causes the lever to turn on its pivot *s*, whereby the short arm will be projected immediately over the pin 14, ready to be engaged by said pin on its upward movement to again lock the plunger G, plate II', and lever L together in operative positions, as before described.

On the shaft *d*, back of the plate II', is mounted a disk or plate M, having a cam-surface *w* and shoulder *x*, the said cam-surface being designed for engagement with the pin 15 on the downward stroke of the plunger, whereby the disk M is thrown forward, so that its shoulder *x* will come at rest at a point near the opening in the ring 7, so that when the projected die is drawn upward into its radial slot in the disk the shoulder *x* will be against the projection 5 on the die E. Now it will be observed that when the plunger is moved upward it operates the plate II' to retract the die, and its pin 15 strikes the part 16 of the disk M just when the die is properly seated in its slot and causes the shouldered portion of the disk M to be thrown rearward, thereby moving the die and the disk M sufficiently to bring the succeeding die on the disk in operative position beneath the plunger.

I have described but one wheel and die in defining my invention; but it will be understood that any desired number of wheels, plungers, dies, and their adjuncts may be used, and that any suitable letter, name, or characters may be formed with or secured to the dies to operate in conjunction with the fixed printing-surface on the lower face of the casing.

To operate the stamp so that it will imprint only the letter or character on the die, project the die, as previously stated, and then bear vertically upon the handle of the stamp. Now, as the printing-face of the die projects slightly beyond the face of the fixed rubber printing-surface, it is obvious only the die will print; but if the subject-matter on the rubber plate is needed also the operator operates the stamp by rolling its curved face over the article to be stamped, when the fixed printing-surface and the projected die will operate to stamp their characters upon the article.

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

1. In a hand-stamp, an outer casing having a fixed printing-surface secured thereto, in combination with a series of rotating wheels within the casing, independent printing-dies carried by said wheels, vertically-moving plungers for removing the dies from engagement with the wheels, and means for returning the dies into position, substantially as described.

2. In a hand-stamp, an outer casing having slots formed in its front surface and a printing-surface fixed to its lower end, in combination with rotating wheels within the casing, independent printing-dies removably secured thereto, vertically-moving plungers for removing the dies from the wheels, means for returning the dies into position on the wheels, and finger-pieces connected with the plungers and projecting through the casing, whereby said plungers are actuated, substantially as described.

3. In a hand-stamp, the casing having the curved lower face, a curved printing-surface fixed to said curved face, an ink-roller frame having an inking-roller and curved slotted arms pivoted upon a shaft journaled in the casing, vertically-moving arms slotted on said shaft and provided with pins working in the curved slots of the arms, whereby the ink-roller frame is moved out of engagement with the curved printing-surface, and springs for returning the frame to its normal position beneath the printing-surface, substantially as herein described.

4. The combination, with the casing having the slot *c*, the walls of which are provided with grooves or guides 10, of rotating wheels within the casing, independent printing-dies removably secured to said wheels, plungers for removing the dies and projecting them through the slotted casing, and means for retracting the dies, said dies being provided with side wings 2, adapted to engage the grooves in the walls of the slot, substantially as herein described.

5. In a hand-stamp, the casing and the transverse shaft *d*, in combination with the radially-slotted disks thereon, vertically-moving plungers, the independent printing-dies fitted in the radial slots in the disk and adapted to be removed therefrom by the plungers, said dies having projections 5, and the vertically-moving plates II, connected with the plungers and having projections *p*, adapted to engage the projections on the dies to retract said dies when the plungers are moved upward, substantially as herein described.

6. The casing, the transverse shaft, the slotted disk thereon, and the independent printing-dies fitted in the slotted disk and provided with the projection 5 and notch 6, in combination with vertically-moving plungers having their lower ends adapted to force the dies out of the slots in the disks, vertically-moving slotted plates II, connected with the plungers and provided with spurs or projections *p*, which engage the notches in the dies to be projected and for returning said dies into position, the open-end ring 7, fitted in the notches in the remaining dies to hold the latter in position on the disk, and means for rotating the disks to bring new dies into position beneath the plungers, substantially as herein described.

7. In a hand-stamp, the casing, with its fixed printing-surface, the transverse shaft, the slotted disks F thereon, the independent printing-dies fitted to said slotted disks,

means for holding the dies on the disks, vertically-moving plungers for withdrawing the dies from the disks, and slotted vertically-moving plate H, connected with the dies and operated by the plungers to retract the dies and return them to their respective slots in the disks, in combination with a pivoted lever on plate L for temporarily holding the plungers and vertically-moving plates together, the disks M, having the cam portions *w* and shoulders *x*, the pins 14 and 15, carried by the plungers and operating the levers L, and also the disks M, whereby a partial rotation is imparted to the disks to move the dies into new positions, substantially as described.

8. In a hand-stamp, a casing, rotating wheels within provided with removable printing-dies, and means for retracting said dies when projected, in combination with the disks M, having the cam-surfaces *w* and shoulders *x*, and vertically-moving plungers for projecting the dies, said plungers being provided with pins for engaging the cam-surfaces thereon, whereby a partial rotation of the disks is effected to move the dies into new positions, substantially as herein described.

MELCHIOR L. LUEBBEN.

Witnesses:
L. D. FOWLER,
E. B. BAER.