

No. 748,529.

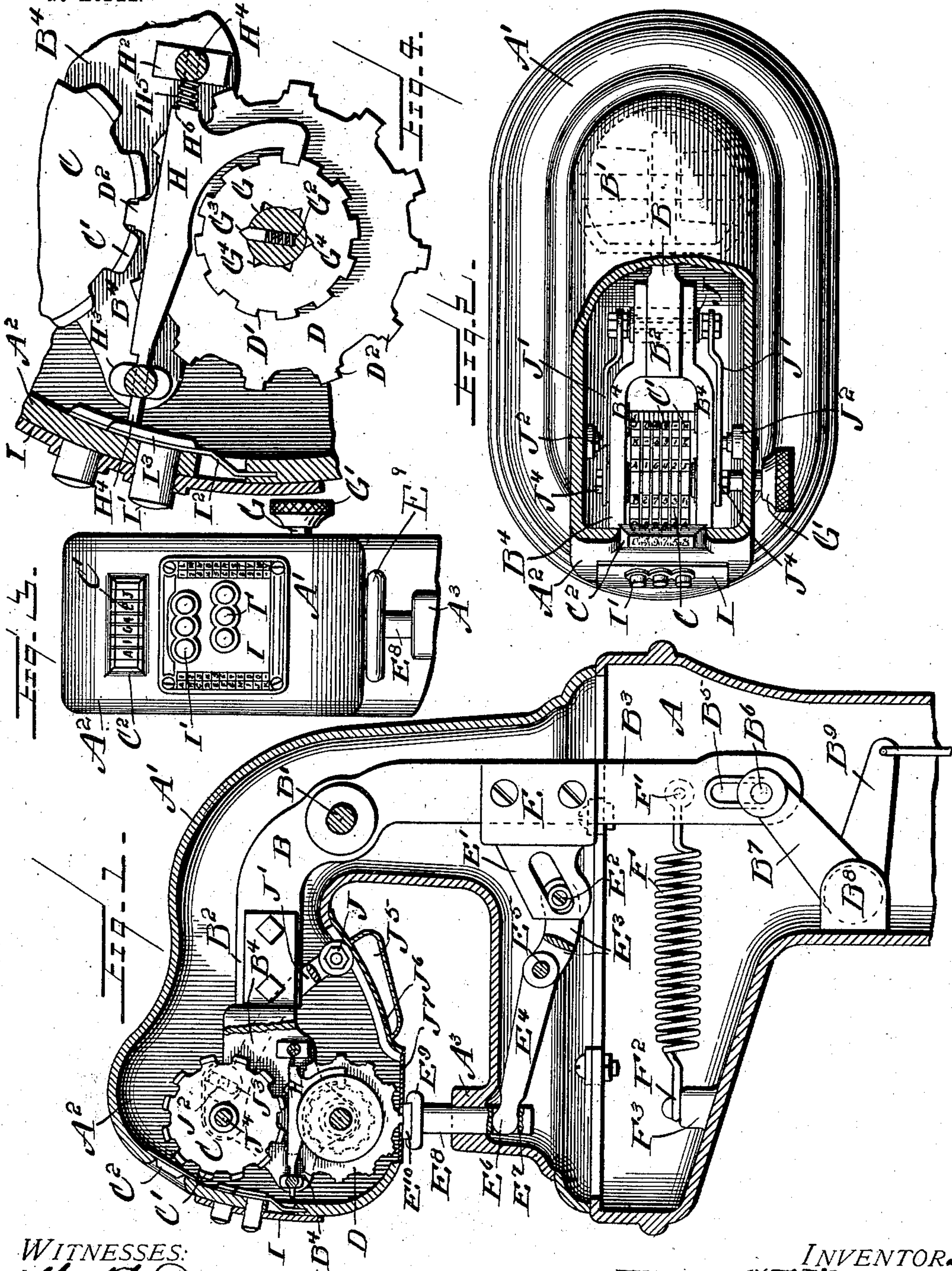
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G. L. RICHARDSON & H. S. WILCOX.

MARKING MACHINE.

APPLICATION FILED SEPT. 3, 1903.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## MARKING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 748,529, dated December 29, 1903.

Application filed September 3, 1903. Serial No. 171,798. (No model.)

*To all whom it may concern:*

Be it known that we, GEORGE L. RICHARDSON and HENRY S. WILCOX, citizens of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Marking-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a marking-machine, and particularly to a construction embodying means for shifting the marking characters to arranged different combinations thereof for distinguishing purposes.

The invention has for an object to improve the construction and arrangement of the centering-lever, marking-dial, and coöperating platen, whereby a simultaneous movement of the marking-dial and platen toward and from each other is secured and an automatic movement of the inking-roller during the movement of the dial and platen.

A further object of the invention is to provide improved locking means for the marking-dials, whereby any one or more of the same may be released and rotated while the remaining ones are held in their previously-adjusted positions, and also to provide an indicating-dial operatively connected to the marking-dial, so as to rotate in unison therewith and indicate the character on the marking-dial which is turned into printing position.

Other and further objects and advantages of the invention will be hereinafter set forth, and the novel features thereof defined by the appended claims.

In the drawings, Figure 1 is a central vertical section through the machine. Fig. 2 is a top plan with a portion of the casing broken away. Fig. 3 is a front elevation of the upper portion of the machine, and Fig. 4 is an enlarged detail vertical section showing the marking-dial in its raised or initial position.

Like letters of reference refer to like parts in the several figures of the drawings.

The letter A designates a standard or support of any suitable character, having secured to the upper part thereof a gooseneck head-casing A', which is provided at its front with

an enlarged portion A<sup>2</sup> to receive the operating mechanism and beneath this portion with a collar A<sup>3</sup>, through which the post of the platen is adapted to slide, as hereinafter described. At the rear of the head-casing A' the centering-lever B is pivotally mounted by means of the pivot pin or shaft B', and the forward end B<sup>2</sup> thereof is projected at substantially a right angle to the depending end B<sup>3</sup>. This forward end B<sup>2</sup> is provided with opposite plates B<sup>4</sup>, which form a bifurcated or forked support for the indicating-dials C and the marking-dials D, hereinafter described. The depending end B<sup>3</sup> of the centering-lever is provided with a plate E, having a lug E', provided with a slot extending diagonally to the portion B<sup>3</sup> of the lever, which slot is adapted to receive the pin E<sup>2</sup>, carrying a suitable friction-roller and extending between the bifurcated arms E<sup>3</sup> of the impression-lever E<sup>4</sup>, which is pivotally mounted in the casing at E<sup>5</sup>. The opposite end of this lever is provided with a curved head E<sup>6</sup>, disposed within a slotted portion E<sup>7</sup> of the post E<sup>8</sup>, which carries at its upper end the platen or impression-button E<sup>9</sup>, provided with an elastic or rubber cushion E<sup>10</sup> to contact with the printing characters upon the dial D. The lower end of the depending portion B<sup>3</sup> of the centering-lever is provided with a slot B<sup>5</sup>, adapted to receive a pin B<sup>6</sup>, extending from a crank-lever B<sup>7</sup>, which is pivotally mounted upon the standard at B<sup>8</sup>, and the opposite arm B<sup>9</sup> thereof is connected by means of a rod with suitable mechanism for operating the same—for instance, a treadle. The parts are normally held in their raised position by means of a spring F connected at one end F' to the end B<sup>3</sup> of the centering-lever and at its opposite end F<sup>2</sup> to the post F<sup>3</sup>, carried by the standard, said spring being shown under tension in Fig. 1, where the parts are in printing or depressed position.

The marking-dials D are rotatably mounted upon a rotatable-shaft G, which has its bearings at opposite ends in the bifurcated head B<sup>4</sup> of the centering-lever, and one end thereof is extended through a suitable slotted aperture in the casing-head A' and provided with a milled operating-head G'. This shaft G is



provided with a recess adapted to contain a spring  $G^2$  and a pin  $G^3$ , one of said pins being provided for each of the marking-dials  $D$ , and the hub of these dials is provided with a series of sockets  $G^4$ , with which the pins are adapted to frictionally engage and hold the dial against independent rotation upon the shaft. Each of the dials is also provided upon its hub with an indexing-gear  $D'$ , adapted to cooperate with a locking-lever  $H$ , having a tooth  $H'$ , adapted to fit between adjacent teeth of the gears  $D'$ . The periphery of the marking-dial is provided with any desired number or character of printing devices. For instance, as herein shown, six dials are mounted upon the shaft, the two outer ones of which contain letters, that on the left being lettered from "A" to "K" and the dial upon the right having the letters from "L" to "Y," omitting the letters "Q," "U," and "X." The intermediate dials are successively numbered from "1" to "0" and are provided with a dash and blank space, the system of characters used being indicated upon the face-plate  $I$ , secured to the front casing  $A^2$  of the machine. The indicating-dials  $C$  cooperate each with one of the marking-dials and are provided with teeth or faces  $C'$ , containing characters corresponding to those upon the marking-dials, said teeth being suitably spaced apart so as to form a meshing gear with the spaced characters  $D^2$  upon the marking-dials, thus insuring positive rotation of the dials together as they are shifted and directly indicating the character which is disposed in printing position by means of the aperture  $C^2$  in the front of the casing, which may be provided with a suitable glass or other transparent protection.

The marking-dials  $D$  are normally locked by means of the latch  $H$ , so that they cannot be rotated upon the shaft  $G$ , an independent latch being provided for each of the dials. This latch is slidably mounted at its opposite ends in cross-bars  $H^2$  and  $H^3$ , carried by the bifurcated head  $B^4$ , the end  $H^4$  of the latch being extended through said bars, while the latch is normally projected outward by means of a tension-spring  $H^5$  extending between the face of the bar  $H^2$  and a shoulder  $H^6$  upon the latch. This latch is adapted to be operated when the dials are in their raised position by means of a push-button  $I'$ , mounted in the face-plate  $I$  and normally held projected by means of spring  $I^2$ . The inner face of this button is provided with a contact-plate  $I^3$ , adapted to contact with one end,  $H^4$ , of the latch, thus removing the tooth  $H'$  thereof from contact with the indexing-gear  $D'$  and permitting the rotation of the shaft  $G$ , which carries therewith the released marking-dial, the remaining dials being held by their latches and permitting the shaft, with the pin  $G^3$ , to rotate within the hubs of the dials without changing the position thereof. One of these push-buttons is provided for each of the marking-dials and locking-latches connected

therewith, so that each of the dials upon the shaft may be independently operated.

For the purpose of inking the marking-dial an inking-roller  $J$  is rotatably mounted by means of lever-arms  $J'$  at opposite sides of the head  $B^4$ , which levers are mounted upon a pivot  $J^2$ , extending inward from the sides of the head-casing  $A^2$ , while the levers are provided at their points of pivotal connection with slots  $J^3$ , shown by dotted lines in Fig. 1 and extending laterally of the levers  $J'$ . The ends of these levers beyond their pivotal points are connected to the head  $B^4$  by means of a pivot  $J^4$ , which in the present illustration constitutes the axis of rotation for the indicating-dial  $C$ . This inking-roller is adapted to travel over the face of an ink-well  $J^5$ , which is provided with a suitable aperture  $J^6$  for the escape of ink therefrom, while below this well an apertured closing-plate  $J^7$  is provided beneath the marking-dial through which the character of said dial is adapted to pass in the printing or marking operation. With the parts in the position shown in Fig. 1 it will be observed that as the head carrying the dials rises to its normal position under the tension of the spring  $F$  the end  $J^4$  of the inking-lever will be carried around and over the pivotal point  $J^2$  thereof, thus causing the inking-roller to travel below the character upon the marking-dial which is in position for printing, thereby applying a fresh supply of ink for the next impression. This manner of mounting the inking-roller also provides a very quick action thereof, so that the roller is given its full length of travel during a comparatively short movement of the centering-lever.

In the operation of the machine it will be observed that the parts in Fig. 1 are in their depressed or printing position, whereby the material or goods to be marked is carried by the platen into contact with the marking-dial by a simultaneous movement of the dial and platen toward and from each other. When the tension upon the treadle or operating means is released, the spring will restore the parts to their raised position, and during such movement the dial is inked for a subsequent impression, as heretofore described. When the parts are in their raised position, if it be desired to change the printing characters upon the marking-dial the push-button controlling the locking-latch for the dial which is to be moved is depressed, thus releasing the dial and permitting its rotation until the desired character appears at the opening opposite the indicating-dial, when the push-button is released, thus permitting the latch to engage the indexing-gear upon the marking-dial and hold the same in its adjusted position for a subsequent marking operation. It will be seen that the construction of the dial mounted by the spring-pin upon the shaft permits the movement of any one of the dials with the shaft, while the remaining dials being locked will be held against such



rotation. The construction also permits the operator to always have in sight the figures which are to be used for marking the goods, so that mistakes from misnumbering can be effectually avoided, while the simple and economical construction of the parts effects the most positive and efficient results in the marking operation and permits the use of the machine by persons not especially skilled in the operation of such machines.

It will be obvious that changes may be made in the details of construction and configuration without departing from the spirit of the invention as defined by the appended claims and also that the characters upon the dials and the number of dials used may be varied or changed, as may be found desirable in different characters of work.

Having described our invention and set forth its merits, what we claim, and desire to secure by Letters Patent, is—

1. In a marking-machine, a printing-dial, a shaft carrying said dial for rotating the same and an indicating-dial connected for complete rotation by and in unison with the printing-dial.

2. In a marking-machine, a printing-dial, a shaft carrying said dial for rotating the same, an indicating-dial operatively connected to rotate in unison with the printing-dial, a locking-latch engaging said printing-dial to retain it against rotation with its shaft, and means to release said latch.

3. In a marking-machine, a printing-dial having characters and projections upon its periphery, and an indicating-dial having corresponding characters and projections upon its periphery meshing with those upon the printing-dial.

4. In a marking-machine, a printing-dial, a shaft for rotatably supporting the dial, an indicating-dial having a geared periphery engaging the printing-dial, a locking-latch to retain the printing-dial against rotation with its shaft, an indexing-gear upon the printing-dial to be engaged by said latch, and means for releasing said latch.

5. In a marking-machine, a printing-dial, a shaft for rotatably supporting said dial, an indicating-dial having a geared periphery engaging the printing-dial, a locking-latch to retain the printing-dial against rotation with its shaft, an indexing-gear upon the printing-dial to be engaged by said latch, means for releasing said latch, and a spring for normally holding said latch in contact with said gear.

6. In a marking-machine, a printing-dial, a shaft for rotatably supporting said dial, an indicating-dial operatively connected therewith, a sliding locking-latch engaging said printing-dial to retain it against rotation with its shaft, a push-button mounted upon the casing independent of the latch, and means for normally projecting said latch toward said button.

7. In a marking-machine, a printing-dial, a shaft for supporting said dial for rotation

therewith or independent thereof, means for locking the same in position against rotation with said shaft, and independent means carried by the casing for releasing said locking means.

8. In a marking-machine, a printing-dial, means for locking the same in position, a pivoted lever carrying said dial and locking means within a casing, a cooperating platen beneath the dial, and independent means carried by the casing to engage the locking means when the printing-dial is out of contact with the platen.

9. In a marking-machine, a printing-dial, means for locking the same in position, independent means carried by the casing for releasing said locking means, a pivoted lever carrying said dial, a cooperating platen beneath the dial, and means carried by said lever for reciprocating said platen simultaneously with the impression movement of the dial.

10. In a marking-machine, a printing-dial, means for locking the same in position, independent means carried by the casing for releasing said locking means, a pivoted lever carrying said dial, a cooperating platen beneath the dial, means carried by said lever for reciprocating said platen simultaneously with the impression movement of the dial, an inking device, and means for automatically operating the same in the movement of the dial and platen.

11. In a marking-machine, a printing-dial, means for locking the same in position, independent means carried by the casing for releasing said locking means, a pivoted lever carrying said dial, a cooperating platen beneath the dial, means carried by said lever for reciprocating said platen simultaneously with the impression movement of the dial, an inking device and means for automatically operating the same in the movement of the dial and platen, and an operating-shaft upon which the printing-dial is mounted for rotation when released.

12. In a marking-machine, a casing, a lever pivotally mounted therein and having its opposite ends beyond said pivot disposed at an angle to each other, a printing-dial mounted upon one end of said lever, a movable platen beneath said dial, an impression-lever for operating said platen, and means connecting said impression-lever with the opposite end of the angular lever from the printing-dial.

13. In a marking-machine, a casing, a lever pivotally mounted therein having its opposite ends beyond said pivot disposed at an angle to each other, a printing-dial mounted upon one end of said lever, a movable platen beneath said dial, an impression-lever for operating said platen, means connecting said impression-lever with the opposite end of the angular lever from the printing-dial, means for moving the angular lever in one direction, and a spring for restoring said lever to its initial position.

14. In a marking-machine, a casing, an an-



- angular lever pivotally mounted therein, a printing-dial mounted upon one end of said lever, a movable platen beneath said dial, an impression-lever for operating said platen, means connecting said impression-lever with the opposite end of the angular lever from the printing-dial, means for moving the angular lever in one direction, a spring for restoring said lever to its initial position, an operating-shaft for the printing-dial provided with a spring-pin, a socketed hub for said dial to engage said pin, and means for holding said dial against rotation with said shaft.
15. In a marking-machine, a pivoted centering-lever, a printing-dial rotatably mounted thereon, an indicating-dial having peripherally-disposed characters thereon operatively connected to rotate in unison with the printing-dial to indicate the printing characters in operative position, and a casing inclosing said dials and provided with a sight-opening opposite the indicating-dial when in its position at rest.
16. In a marking-machine, a centering-lever, a printing-dial rotatably mounted thereon, an indicating-dial operatively connected to rotate in unison with the printing-dial, a casing inclosing said dials and provided with a sight-opening opposite the indicating-dial, an operating-shaft upon which printing-dial is mounted for rotation therewith, locking means for holding said printing-dial against rotation with said shaft, and means carried by the casing for releasing said locking means.
17. In a marking-machine, a centering-lever, a printing-dial rotatably mounted thereon, an indicating-dial operatively connected to rotate in unison with the printing-dial, a casing inclosing said dials and provided with a sight-opening opposite the indicating-dial, an operating-shaft for the printing-dial, locking means for holding said printing-dial against rotation with said shaft, means for releasing said locking means, an ink-reservoir supported by said casing, an inking-roller adapted to travel over said reservoir and printing-dial, a supporting-arm for said roller pivoted to said casing, and a pivotal connection between said arm and the lever carrying said dials.
18. In a marking-machine, a centering-lever, a printing-dial rotatably mounted thereon, an indicating-dial operatively connected to rotate with the printing-dial, a casing inclosing said dials and provided with a sight-opening opposite the indicating-dial, an operating-shaft for the printing-dial, locking means for holding said printing-dial against rotation with said shaft, means for releasing said locking means, an ink-reservoir supported by said casing, an inking-roller adapted to travel over said reservoir and printing-dial, a supporting-arm for said roller pivoted to said casing, a pivotal connection between said arm and the lever carrying said dial, an impression-platen provided with a sliding post, a pivoted impression-lever connected with said post, and a slotted bracket extending from the dial-supporting lever and connected with one end of the impression-lever.
19. In a marking-machine, a centering-lever, a printing-dial rotatably mounted thereon, an indicating-dial operatively connected to rotate with the printing-dial, a casing inclosing said dials and provided with a sight-opening opposite the indicating-dial, an operating-shaft for the printing-dial, locking means for holding said printing-dial against rotation with said shaft, means for releasing said locking means, an ink-reservoir supported by said casing, an inking-roller adapted to travel over said reservoir and printing-dial, a supporting-arm for said roller pivoted to said casing, a pivotal connection between said arm and the lever carrying said dial, an impression-platen provided with a sliding post, a pivoted impression-lever connected with said post, a slotted bracket extending from the dial-supporting lever and connected with one end of the impression-lever, a slotted lower end to said dial-supporting lever, a crank-arm connected to said end, and a spring extended from said end to a fixed point upon the casing.
20. In a marking-machine, a pivoted lever, a printing-dial carried thereby at one end, an arm pivoted to the casing and provided at one end with an inking-roller and connected at its opposite end to the dial-carrying end of said pivoted lever, and means for oscillating said lever.
21. In a marking-machine, a pivoted lever, a printing-dial carried thereby, an arm pivoted to the casing by a slotted opening extending transversely of the arm and connected at its upper end to the dial-carrying end of said pivoted lever, an inking-roller carried by the opposite end of the arm below said lever, and means for oscillating said lever.
22. In a marking-machine, a series of printing-dials each provided with an indexing device, an operating-shaft, means for frictionally retaining said dials in position upon said shaft to rotate therewith, a series of locking devices to engage indexing devices for retaining said dials against rotation with said shaft, and a series of independent releasing devices carried by the casing and adapted to engage said locking means when at rest and in alignment with the releasing devices to release the same from the dials and permit rotation thereof with the shaft.
23. In a marking-machine, a standard, a gooseneck head-casing, an angularly-disposed lever pivoted between its ends in the rear of said head-casing, a printing-dial carried by one end of said lever in the forward portion of said head-casing, and a movable platen connected to the opposite end of said lever and cooperating with said printing-dial.
24. In a marking-machine, a standard, a gooseneck head-casing, an angularly-disposed lever pivoted in the rear of said head-casing, a printing-dial carried thereby in the forward



portion of said head-casing, a movable platen cooperating with said printing-dial, a pivoted impression-lever connected with the post of said platen, a laterally-disposed pin upon the opposite end of said impression-lever, and a bracket carried by the depending portion of the angularly-disposed lever and provided with a slot to receive said pin.

25. In a marking-machine, a standard, a gooseneck head-casing, an angularly-disposed lever pivoted in the rear of said head-casing, a printing-dial carried thereby in the forward portion of said head-casing, a movable platen cooperating with said printing-dial, a pivoted impression-lever connected with the post of said platen, a laterally-disposed pin upon the opposite end of said impression-lever, a bracket carried by the depending portion of the angularly-disposed lever and provided with a slot to receive said pin, locking means for retaining said printing-dial against rotation, and means carried by the front face of the head-casing for releasing said locking means when the dial is in its uppermost position.

26. In a marking-machine, a standard, a gooseneck head-casing, an angularly-disposed lever pivoted in the rear of said head-casing, a printing-dial carried thereby in the forward portion of said head-casing, a movable platen cooperating with said printing-dial, a pivoted impression-lever connected with the post of said platen, a laterally-disposed pin upon the opposite end of said impression-lever, a bracket carried by the depending portion of the angularly-disposed lever and provided with a slot to receive said pin, locking means for retaining said printing-dial against rotation, means carried by the front face of the head-casing for releasing said locking means when the dial is in its uppermost position, an indicating-dial provided with peripheral teeth bearing characters corresponding with those upon the printing-dial and intermeshing therewith, and a sight-opening in the front of the head-casing in alinement with the indicating-dial.

27. In a marking-machine, a standard, a gooseneck head-casing, an angularly-disposed lever pivoted in the rear of said head-casing, a printing-dial carried thereby in the forward portion of said head-casing, a movable platen cooperating with said printing-dial, a pivoted impression-lever connected with the post of said platen, a laterally-disposed pin upon the opposite end of said impression-lever, a bracket carried by the depending portion of the angularly-disposed lever and provided with a slot to receive said pin, locking means for retaining said printing-dial against rotation, means carried by the front face of the head-casing for releasing said locking means when the dial is in its uppermost po-

sition, an indicating-dial provided with peripheral teeth bearing characters corresponding with those upon the printing-dial and intermeshing therewith, a sight-opening in the front of the head-casing in alinement with the indicating-dial, an ink-reservoir carried by the under face of the front portion of the head-casing, an arm pivoted upon the casing having a laterally-disposed slot and mounted upon a pivot-pin from the side of said casing, an inking-roller at the lower end of said arm, and a pivotal connection between the upper end of said arm and the shaft of the indicating-dial.

28. In a marking-machine, a standard, a gooseneck head-casing, an angularly-disposed lever pivoted in the rear of said head-casing, a printing-dial carried thereby in the forward portion of said head-casing, a movable platen cooperating with said printing-dial, a pivoted impression-lever connected with the post of said platen, a laterally-disposed pin upon the opposite end of said impression-lever, a bracket carried by the depending portion of the angularly-disposed lever and provided with a slot to receive said pin, locking means for retaining said printing-dial against rotation, means carried by the front face of the head-casing for releasing said locking means when the dial is in its uppermost position, an indicating-dial provided with peripheral teeth bearing characters corresponding with those upon the printing-dial and intermeshing therewith, a sight-opening in the front of the head-casing in alinement with the indicating-dial, an ink-reservoir carried by the under face of the front portion of the head-casing, an arm pivoted upon the casing having a laterally-disposed slot and mounted upon a pivot-pin from the side of said casing, an inking-roller at the lower end of said arm, a pivotal connection between the upper end of said arm and the shaft of the indicating-dial, a crank-arm pivotally mounted in said standard and connected with the slotted depending end of the dial-supporting lever, and a restoring-spring extending from said depending end to a post carried by the forward part of the standard.

29. In a marking-machine, a plurality of printing-dials frictionally mounted upon an operating-shaft for movement therewith and independently thereof, independent means for locking each dial against rotation with the shaft, and independent releasing means for each dial-locking means.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE L. RICHARDSON.

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Witnesses:

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