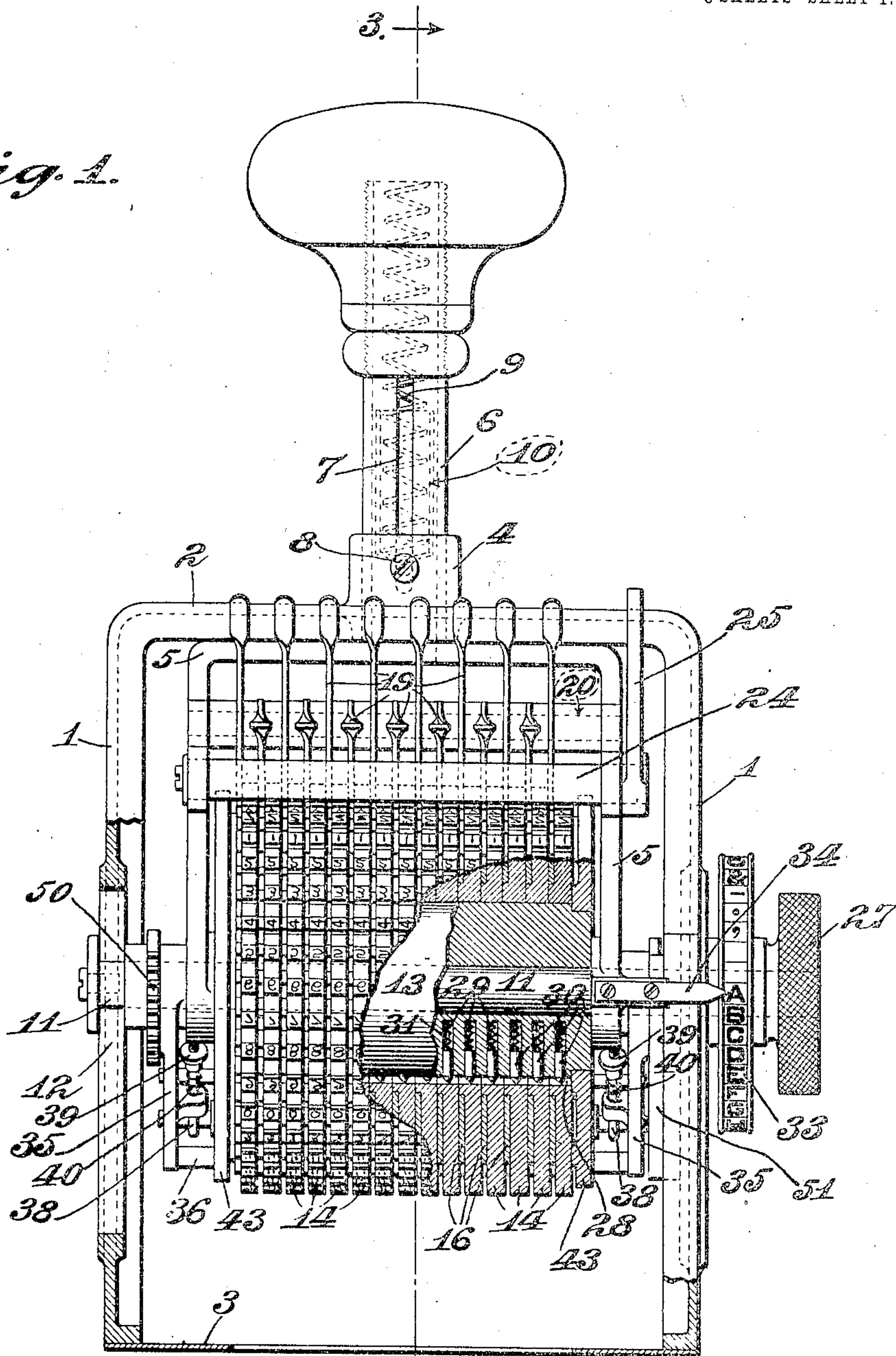


920,533.

3 SHEETS--SHEET 1.

Fig. 1.



Inventor:

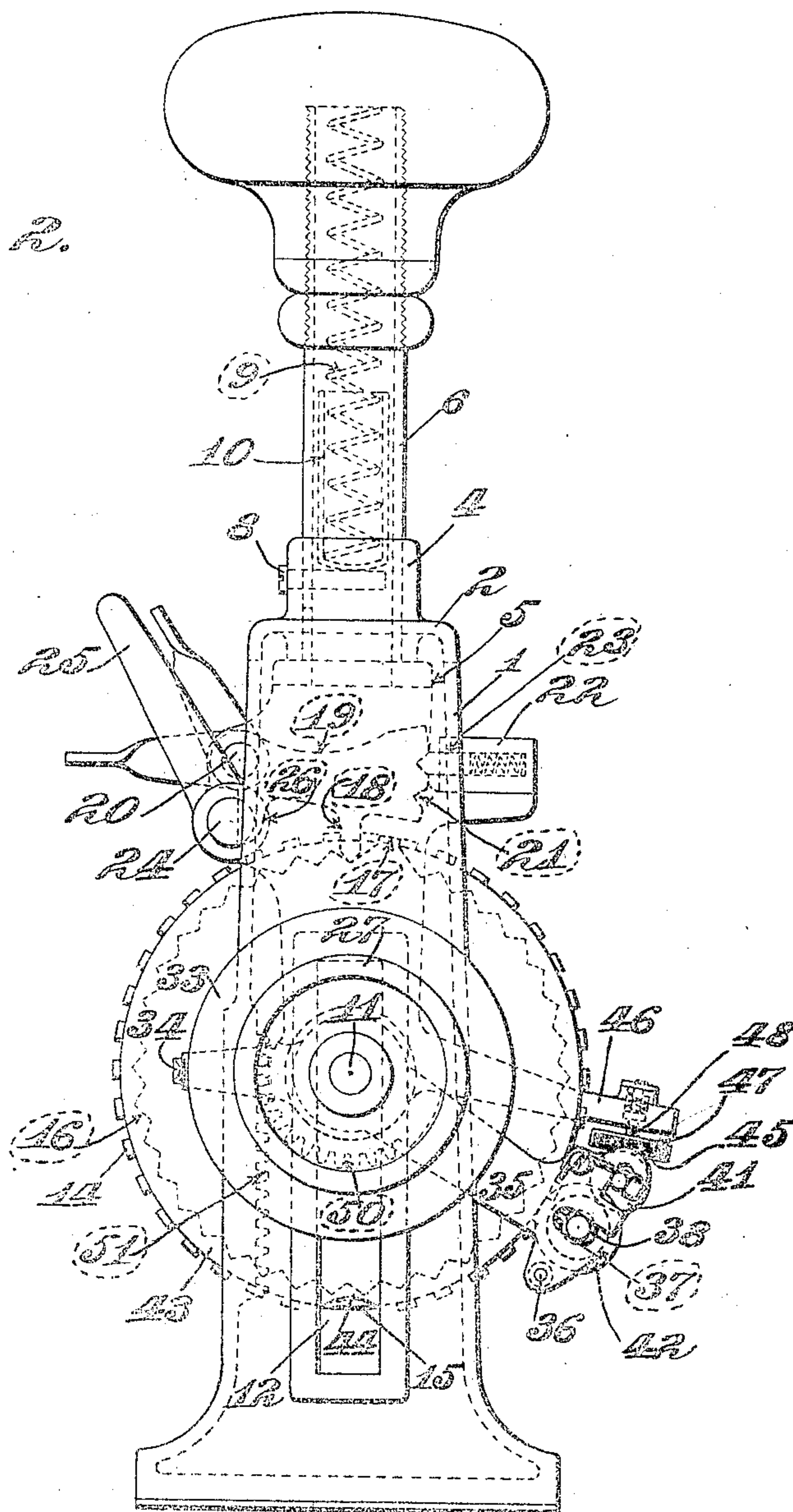
Andrew J. Brooks,
By ~~Court~~ ^{James} ~~James~~ ^{Attys.}

A. J. BRADLEY.
 PRINTING STAMP.
 APPLICATION FILED JUNE 10, 1908.

920,533.

Patented May 4, 1909.
 3 SHEETS—SHEET 2.

Fig. 2.



Witnesses:
G. A. Pennington
J. B. Megown

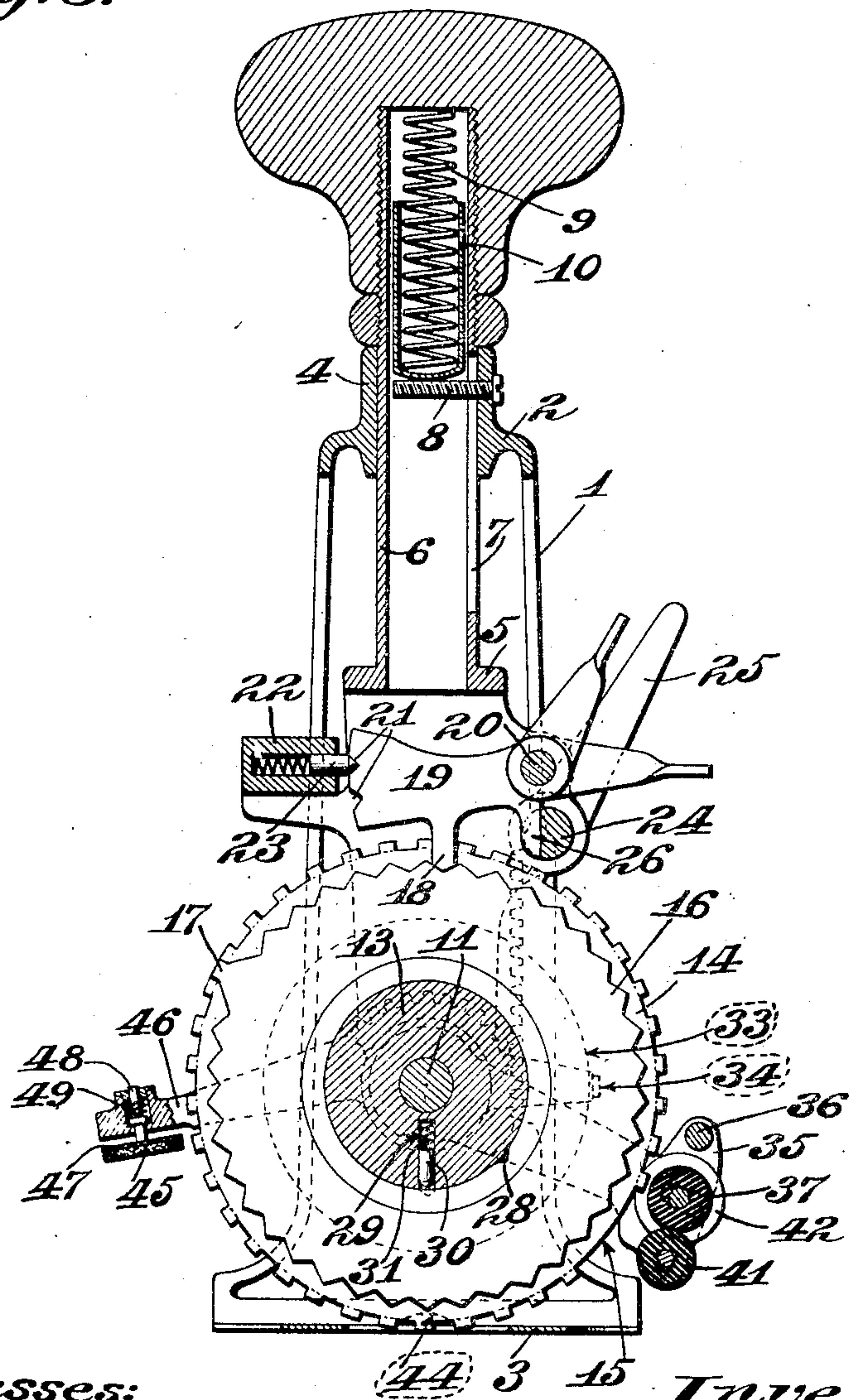
Inventor:
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A. J. BRADLEY.
 PRINTING STAMP.
 APPLICATION FILED JUNE 10, 1908.

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Patented May 4, 1909.
 3 SHEETS—SHEET 3.

Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

ANDREW J. BRADLEY, OF NEW YORK, N. Y.

PRINTING-STAMP.

No. 920,533.

Specification of Letters Patent.

Patented May 4, 1909.

Application filed June 10, 1908. Serial No. 437,620.

To all whom it may concern:

Be it known that I, ANDREW J. BRADLEY, a citizen of the United States, and a resident of the city of New York, county of New York, and State of New York, have invented a certain new and useful Improvement in Printing-Stamps, of which the following is a specification.

My invention relates to hand printing stamps and has for its principal objects to facilitate adjustment of the type carrying members, to insure the accurate alinement of the characters during the operation of printing, and to attain other advantages hereinafter appearing.

The invention consists in the construction and arrangements of parts hereinafter described and claimed.

In the accompanying drawing, which forms part of this specification, and wherein like symbols refer to like parts wherever they occur, Figure 1 is a front elevation of a hand printing stamp embodying my invention, portions being shown in section; Fig. 2 is an end elevation of the device; Fig. 3 is a section on the line 3—3 of Fig. 1.

The frame of my machine comprises side members 1 and a top member 2 preferably made in a single piece. Preferably, the lower ends of the side members are connected by a thin plate 3 having a large opening in its middle portion through which the printing is effected. The middle portion of the top member of the frame has a vertically perforated boss 4. Inside of the frame is a yoke 5 which conforms to the inner surface of the frame and has a tubular extension 6 which extends upwardly through the bore of said boss. This tubular extension has an elongated vertical slot 7 in its side through which projects a pin 8 that is mounted on said boss. Inside of said tubular extension is a helical spring 9 whose lower portion is inclosed in a thimble or tubular shell 10. The lower end of this helical spring bears against said pin and its upper end bears against a knob mounted on the upper end of said tubular extension. By this arrangement, the spring normally holds said yoke up against the boss or underside of the top member of the frame, but permits said yoke to be depressed when pressure is applied to said knob. Mounted on the arms of said yoke near the lower ends thereof is a horizontal shaft 11 whose ends project through elongated slots 12 in the side members of the frame. Fixed to or integral

with this shaft is an axle or drum 13 upon which are rotatably mounted a series of similar type-wheels 14. Except for a single space 15 that is normally in the lowermost position, the periphery of each wheel is covered with a series of type or printing characters, and each wheel is independently rotatable on the axle or drum.

Fixed to or integral with each type wheel is a star wheel 16 or wheel whose periphery is provided with V-shaped indentations equal in number to the number of characters on the type wheel. Each of said star wheels has a radially projecting portion 17 thereon which, in the normal position of the parts, bears against a limiting stop provided therefor. As illustrated in the drawing, these limiting stops are pawls or teeth 18 formed on hand levers 19 that are fulcrumed on a cross rod or shaft 20 mounted on the arms of the yoke parallel with the main shaft. The end of each pawl or tooth is shaped to fit the indentations in its star wheel, and the hand lever is so located that its tooth or pawl can be moved into or out of engagement with the indentation opposite it. By reason of the sides of the indentations being inclined, the pressure of the pin thereon turns the wheel into accurate adjustment. The end of the hand lever is arcuate and provided with two shallow notches or indentations 21. The yoke is provided with a cross-piece 22 adjacent to the inner ends of said hand levers, and this cross piece is provided with holes or sockets opposite the respective levers. In each socket is a spring-pressed pin 23 having a tapering end adapted to fit the notches in said lever in either its outermost or innermost position. By this arrangement, the pin serves as a means of yieldingly locking the hand lever either in engagement or out of engagement with the type wheel. In the outermost position of the locking lever, its tooth 18 is entirely clear of the indentations of the star wheel but is still in the path of the projection 17 on said star wheel and thereby serves to limit the rotation of the corresponding type wheel.

The yoke has a cross rod or shaft 24 rotatably mounted thereon below the cross rod upon which the locking levers are mounted. This shaft 24 is provided at its outer end with a suitable handle 26 for turning it, and it is adapted to release and reset the locking levers in their normal position out of en-

gagement with the type wheels. For this purpose, the cross shaft is made of a semi-cylindrical section and each of the locking levers has a downwardly projecting shoulder 26 which abuts against or is close to the flat side of said shaft when the locking lever is in engagement with the type wheel. By this arrangement, the cross shaft serves as an eccentric or cam and the turning of said cross shaft causes the lower edge thereof to bear against the shoulder on each of the locking levers that are in engagement with their wheels and thereby tilts each of such levers upwardly to its normal position out of engagement with its wheel. Obviously, the cross shaft might be cranked or otherwise provided with an eccentric portion to effect the resetting of the locking levers.

The rotation and adjustment of the type wheels may be effected by any suitable means, such, for instance, as those illustrated in applications for Letters Patent therefor executed by me of even date herewith. As illustrated in the drawing, the end of the shaft 20 projects through the main frame and is provided with a knurled knob or handle 27 for turning it. Each type wheel (or the star wheel connected thereto) has a shallow notch or depression 28 in the inner face of its hub. The drum or axle on which the type wheels are journaled is provided with a series of radial holes or sockets 29, in each of which is a pin 30 which is pressed outwardly by means of a spring 31 in the bottom of said socket. The projecting end of each pin is beveled or rounded and in position to register with the notch in the corresponding type wheel. Normally, each of the spring pressed pins is in engagement with its appropriate notch and thereby yieldingly locks the corresponding type wheel of such axle or drum so as to rotate therewith. When the type wheel is positively locked to the frame in any position by means of its locking lever, the spring pressed locking pin in the axle or drum is free to yield automatically so as not to interfere with the rotation of the axle or drum.

Mounted on the projecting end of the main shaft is an annular shell or cylindrical indicator 33 whose periphery is provided with characters corresponding to those on the type wheels. Fixed to the yoke is a pointer or indicator 34 whose end overlaps the margin of said circular indicator. In the normal position of the parts, the type wheels are yieldingly locked to the common axle or drum, and the indicator and its pointer are arranged with reference to this normal condition; that is to say, the indicator moves with the axle and indicates the position of only those wheels which are in engagement with the axle.

Journaled on the main shaft beyond the type wheels but inside of the yoke are a

pair of arms 35 which are connected by a cross member 36 and constitute a frame for supporting a type inking roll 37. For this purpose, the ends of said arms are slotted longitudinally to receive the spindles of said type inking roll. Said spindles extend through the ends of the eyebolts 38 which are mounted in perforated lugs provided therefor on said arms and have their inner ends screw-threaded and provided with adjusting nuts 39. Each eyebolt is provided with a helical spring 40, one end of which bears against its supporting lug and the other end of which bears against the adjusting nut, whereby said springs tend to press the type inking roll inwardly. Mounted on said arms alongside of the type inking roll is an ink distributing roll 41 arranged to cooperate therewith. For this purpose, the spindles at the ends of said ink distributing roll are mounted in elongated slots and are pressed by springs toward the type inking roll.

The shaft of the type inking roll is provided with circular enlargements or wheels 42 arranged to run on circular tracks 43 provided therefor concentric with the type wheels. Said tracks are so located as to keep the type inking roll clear of the wheels except at the lowermost position, where depressions 44 are formed in said tracks to permit the springs to lift the type inking roll upwardly against the lowermost portions of the type wheels. As illustrated, the tracks consist of segmental disks fixed to the yoke and having curved notches or depressions in their peripheries.

Suitably mounted in the path of the ink distributing roller is an inking pad 45 against which said ink distributing roller normally rests. As illustrated in the drawing, this inking pad is supported upon arms 46 fastened to the yoke or frame 5 that reciprocates vertically in the main frame of the machine. The ink pad is mounted on a plate 47 which is provided near its ends with headed pins 48. Each of these pins extends through the wall of a pocket provided therefor on the supporting frame, and inside of each pocket is a helical spring 49 which presses outwardly against the head of said pin. By this arrangement, the ink pad is yieldingly pressed against the ink distributing roller.

Integral with or fixed to the frame of the type inking roll is a segmental gear or gears 50 which mesh with a vertical rack or racks 51 provided therefor on the main frame. By this arrangement, the downward pressure of the knob or handle 27 depresses the yoke and all of the parts mounted thereon, including the frame of the type inking roll. In this downward movement, the segmental gears 50 of the frame of the type inking roll cooperating with said stationary racks 51 causes said frame to swing downwardly. In

this swinging movement, the type inking roll travels along its tracks until the depressions therein permit it to rise against the type wheel and thereby ink those type that are in the lowermost or printing position, whereupon the further oscillation of said frame again carries said type inking roller against its tracks, thereby lifting it clear of the type, and swings it out of the way of the type wheels. The continuation of the downward movement of the yoke brings said inked type into contact with the paper, fabric or other article upon which the base of the machine rests and thereby makes an imprint with each wheel that has been shifted from its normal position.

Obviously, my device admits of considerable modification without departing from my invention, and therefore, I do not wish to be restricted to the specific construction shown and described.

What I claim is:

1. In a printing machine, a rotatable axle having a plurality of radial sockets therein, a spring pressed pin in each socket, a plurality of type wheels independently rotatable on said axle, each wheel having a depression in its hub arranged to form a yielding engagement with one of said pins, and means for positively locking said wheels individually, said locking means being normally in inoperative relation to said wheels.

2. In a printing machine, a rotatable axle having a plurality of inwardly moving locking members thereon, and a plurality of type wheels independently rotatable on said axle and each being adapted to be yieldingly engaged by one of said locking members, and means for positively locking said wheels individually, said means comprising a manually operable lever having a pawl arranged to interlock with a portion of the corresponding type wheel and said pawls being normally out of engagement with the respective type wheels.

3. A printing stamp comprising a main frame and a manually movable yoke mounted therein, an axle rotatably mounted on said yoke, a plurality of type wheels independently rotatable on said axle, and means for yieldingly securing said wheels to said shaft in normal relation thereto and means on said yoke for locking said wheels individually in adjusted position, said locking means being normally in inoperative relation to said wheels.

4. A printing stamp comprising a main frame, a manually movable yoke slidably mounted therein, an axle rotatably mounted on said yoke, a plurality of type wheels normally rotatable with said shaft but capable of limited rotation independently thereof, means for yieldingly securing said wheels to said shaft in normal relation thereto, and means on said yoke for locking said wheels

individually in adjusted position, said locking means being normally in inoperative relation to said printing members.

5. A printing stamp comprising a main frame, a manually movable yoke mounted therein, an axle rotatably mounted on said yoke, a plurality of type wheels normally rotatable with said shaft but capable of limited rotation independently thereof, and means for yieldingly securing said wheels to said shaft in normal relation thereto, said means comprising radially movable spring actuated pins mounted in said axle and depressions in the hubs of the respective type wheels arranged to cooperate with said pins.

6. A printing stamp comprising a main frame, a manually operable yoke vertically movable therein, a plurality of independently adjustable type wheels movably mounted in said yoke, and means for inking the type wheels, said means comprising a type inking roll, a pivotally mounted frame for supporting said roll, gear teeth on said supporting frame, and a vertical rack fixed on the main frame in operative engagement with said gear teeth.

7. A printing stamp comprising a main frame, a manually operable yoke vertically movable therein, a plurality of independently adjustable type wheels movable with said yoke, and means for inking the type wheels, said means comprising a type inking roll and an ink distributing roll cooperating therewith, a pivotally mounted frame for supporting said rolls, tracks arranged to keep said type inking roll clear of the type wheels and having depressions arranged to permit the inking of the type wheels in printing position, gear teeth on said supporting frame, and a rack fixed on the main frame in mesh with said teeth.

8. A printing stamp comprising a main frame, a manually operable yoke vertically movable therein, a plurality of independently adjustable type wheels movable with said yoke, and means for inking the type wheels, said means comprising a type inking roll and an ink distributing roll cooperating therewith, a pivotally mounted frame for supporting said rolls, gear teeth on said supporting frame and a rack fixed on the main frame in mesh therewith, an inking pad arranged in position to cooperate with said ink distributing roll, and tracks for the type inking roll having depressions at the lowermost portion thereof arranged to permit the inking roll to ink the lowermost type of the respective type wheels.

9. A printing stamp comprising a main frame, a manually operable yoke vertically movable therein, a plurality of independently adjustable type wheels movable with said yoke, and means for inking the type wheels, said means comprising a type inking roll and an ink distributing roll cooperating there-

with, a pivotally mounted frame for supporting said rolls, gear teeth on said supporting frame and a rack fixed on the main frame in mesh therewith, a yieldingly mounted inking pad arranged in position to cooperate with said ink distributing roll, and tracks for the type inking roll having depressions at the lowermost portion thereof arranged to permit the inking roll to ink the lowermost type of the respective type wheels.

10. A printing stamp comprising a frame, a manually movable yoke mounted therein, an axle rotatably mounted on said yoke, a plurality of type wheels independently rotatable on said shaft and means for positively locking said wheels individually, each of said type wheels having star teeth and a radially projecting portion, and said locking means comprising a series of manually operable levers each having a tooth arranged to engage the indentations of the corresponding type wheel and arranged also to constitute a limiting stop for the projection on said wheel when disengaged from the indentations thereof.

11. A printing stamp comprising a main frame and a manually movable yoke mounted therein, an axle rotatably mounted on said yoke, means for rotating said axle, an indicator arranged to indicate the angular position of said axle, a series of type wheels normally rotatable with said axle but capable of limited rotation independently thereof and means for yieldingly securing said wheels individually to said axle in normal relation thereto.

12. A printing stamp comprising a main frame, and a manually movable yoke mounted therein, an axle rotatably mounted on said yoke, means for rotating said axle, an indicator arranged to indicate the angular position of said axle, a series of type wheels normally rotatable with said axle but capa-

ble of limited rotation independently thereof and means for yieldingly securing said wheels individually to said axle in normal relation thereto, and means mounted on said yoke for positively locking said type wheels individually.

13. A printing stamp comprising a main frame, a manually movable yoke mounted therein, an axle rotatably mounted on said yoke, means for turning said axle, an indicator on said axle and a pointer mounted on said frame for cooperating with said indicator, a plurality of type wheels normally rotatable with said axle but capable of limited rotation independently thereof, means for yieldingly securing the respective type wheels to said axle in normal relation thereto, and manually operable means mounted on said yoke for positively locking said type wheels individually.

14. A printing stamp comprising a main frame, a manually operable yoke mounted therein, an axle rotatably mounted on said yoke, means for turning said axle, an indicator on said axle and a pointer mounted on said frame for cooperating with said indicator, a plurality of type wheels normally rotatable with said axle but capable of limited rotation independently thereof, means for yieldingly securing the respective type wheels to said axle in normal relation thereto, and manually operable means for resetting said locking means.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses this 8th day of June, 1908, at New York, N. Y.

ANDREW J. BRADLEY

Witnesses:

M. J. CLARE,

G. C. DECKER.