I. EYER.

STAMPING, DATING, OR NUMBERING MACHINE.

APPLICATION FILED FEB. 4, 1908.

904,120.

Patented Nov. 17, 1908.

3 SHEETS—SHEET 1.

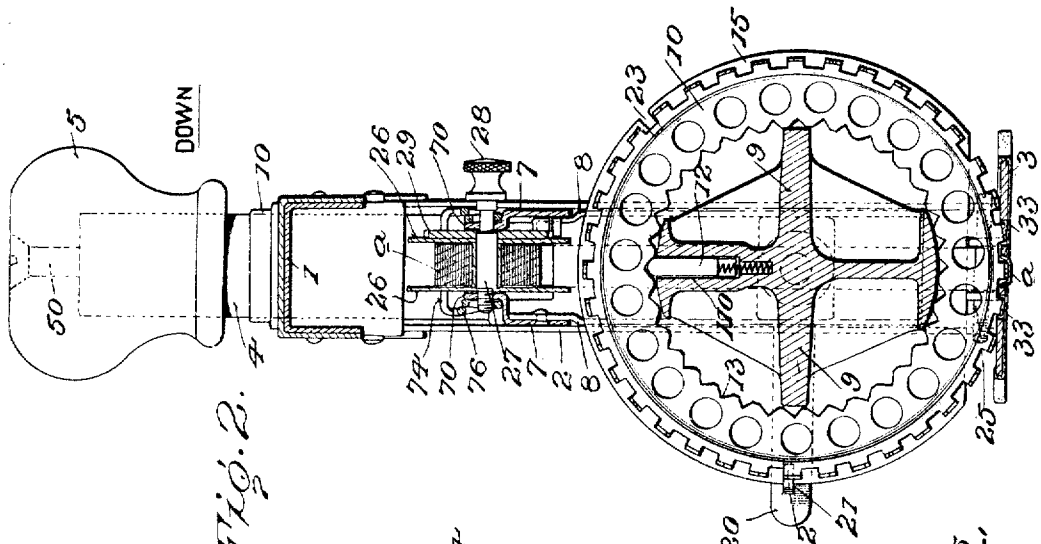


Fig. 2.

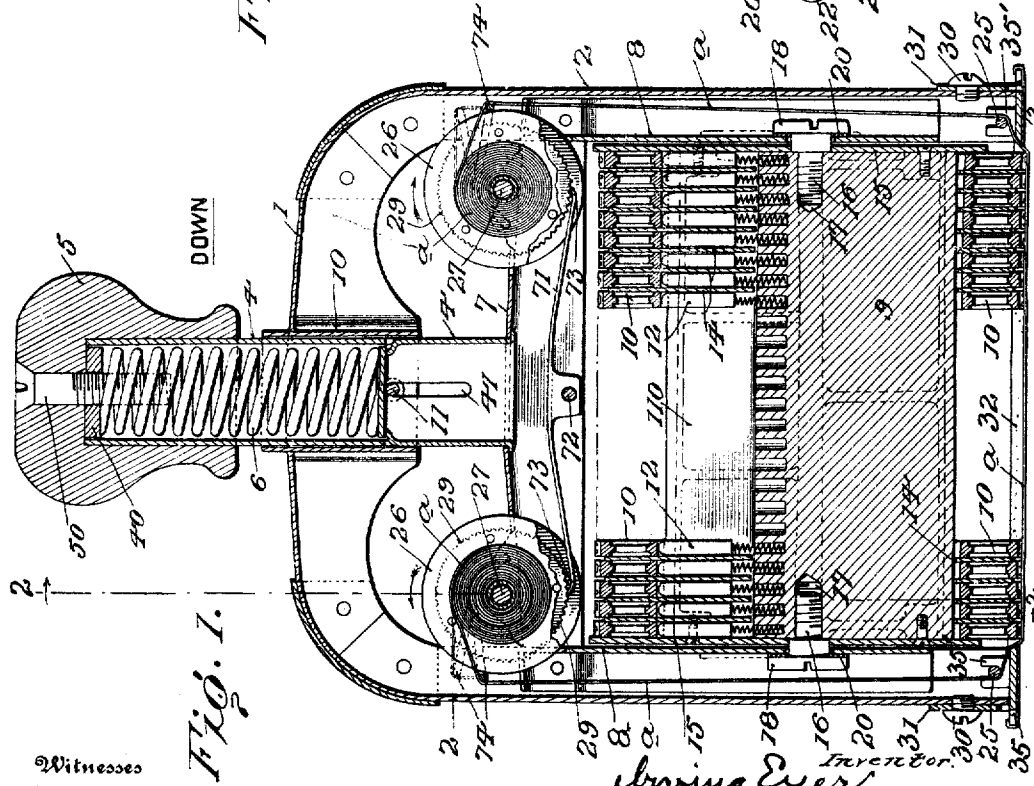


Fig. 1.

Witnesses
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3 SHEETS—SHEET 2.

Fig. 3.

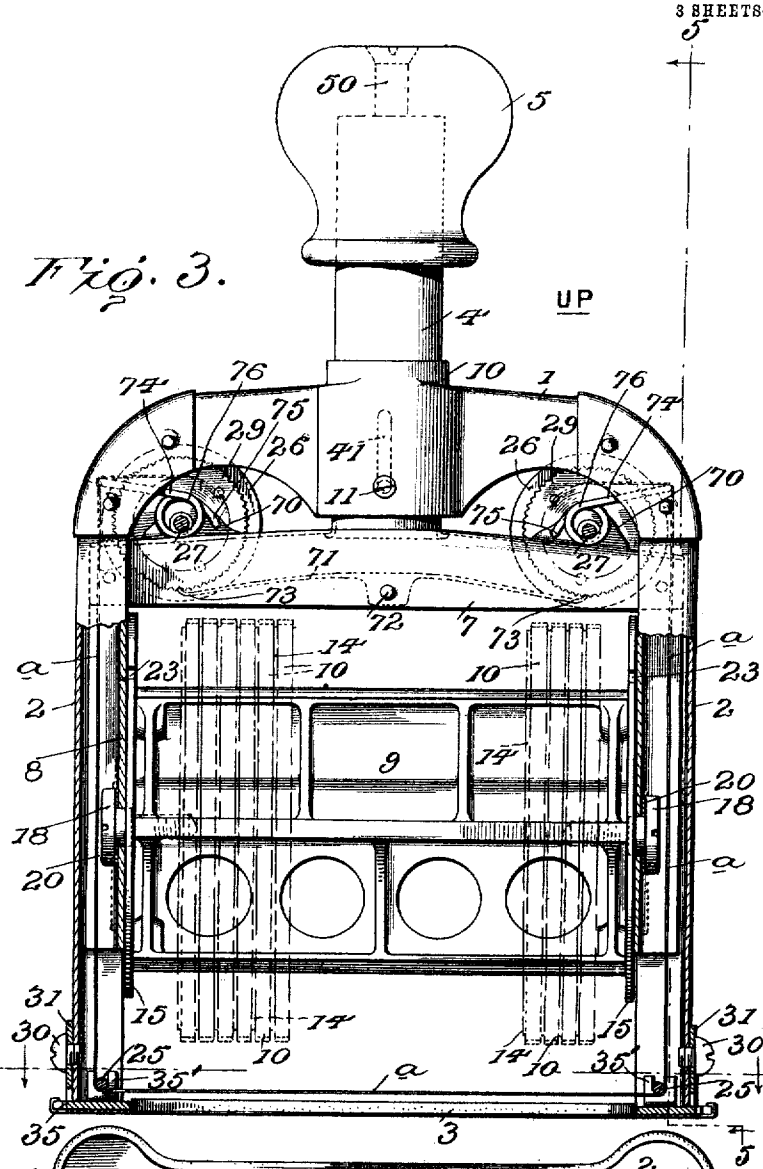
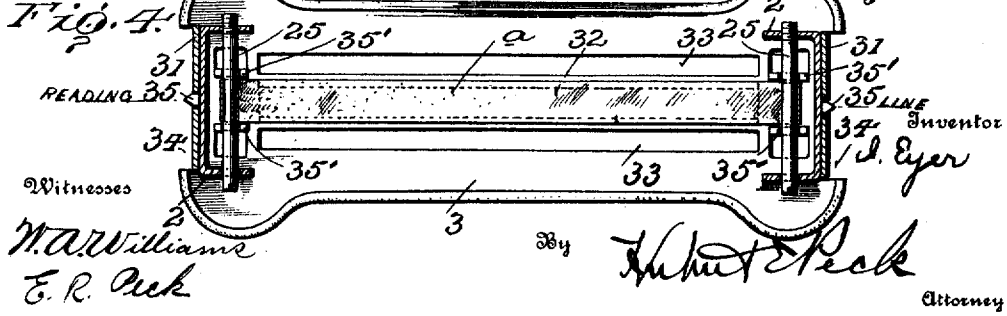


Fig. 4.



Witnesses

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3 SHEETS—SHEET 3.

Fig. 5.

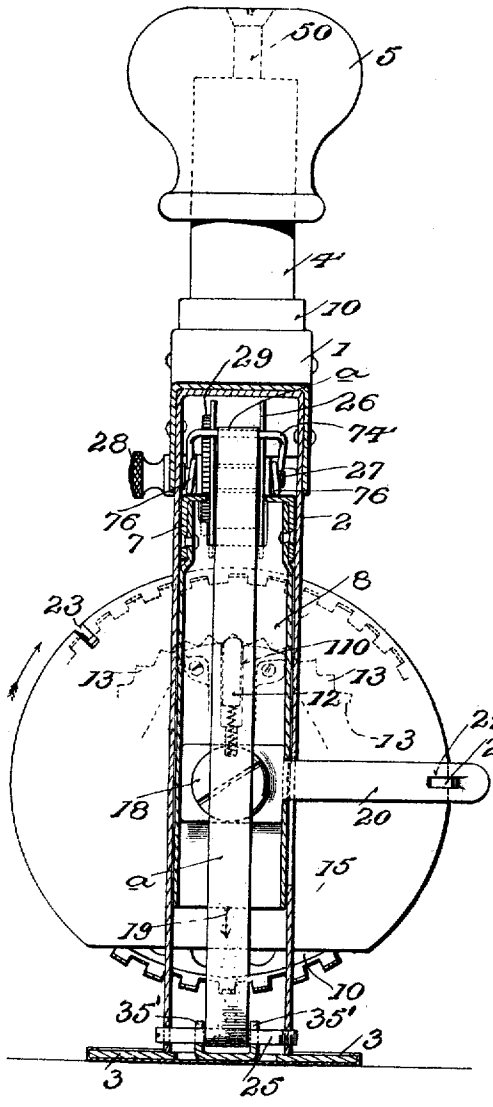
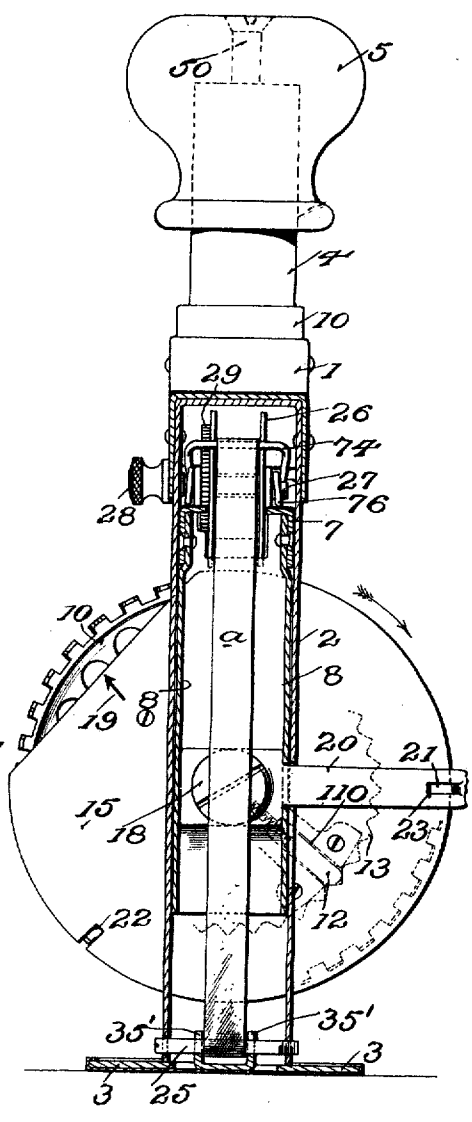


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

IRVING EYER, OF WILMINGTON, DELAWARE, ASSIGNOR TO THE DELAWARE STAMP MACHINE COMPANY, OF WILMINGTON, DELAWARE, A CORPORATION OF DELAWARE.

STAMPING, DATING, OR NUMBERING MACHINE.

No. 904,120. Specification of Letters Patent. Patented Nov. 17, 1908.

Application filed February 4, 1908. Serial No. 414,190.

To all whom it may concern:

Be it known that I, IRVING EYER, a citizen of the United States, residing at Wilmington, Newcastle county, Delaware, have invented certain new and useful Improvements in Stamping, Dating, or Numbering Machines; 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.

This invention relates to improvements in stamping, dating or numbering machines; and the objects and nature of my invention will be readily understood by those skilled in the art in the light of the following explanations of the accompanying drawings illustrating what I now consider to be my preferred embodiment from among other constructions and arrangements within the spirit and scope of my invention.

An object of the invention is to provide improvements in stamping machines whereby an inking ribbon can be advantageously employed instead of an inking pad or the like whereby the efficiency of the machine will be increased.

A further object of the invention is to provide in stamping machines certain improvements whereby the entire printing head with its separately adjustable printing elements can be oscillated or rotated on a horizontal axis a partial revolution from normal or printing position to permit setting or adjusting of said printing elements to form the desired printing line while visible at the side or upper portion of the printing head, and whereby the printing head can be then turned back to its normal position to present the printing line thus set up at the proper printing position.

A further object of the invention is to provide certain improvements in constructions and arrangements of parts and details whereby an efficient and improved stamping machine will be produced.

The invention consists in certain novel features, and in arrangements or combinations of parts as more fully and particularly set forth and described hereinafter.

Referring to the accompanying drawings, Figure 1, is a longitudinal vertical section of the machine in printing or depressed position. Fig. 2, is a cross section on the line 2—2, Fig. 1. Fig. 3, is a side elevation parts being broken away and other parts shown in dotted lines. Fig. 4, is a section on the line 4—4, Fig. 3. Fig. 5, is a section on the line 5—5, Fig. 3, the printing head being shown in printing position. Fig. 6, is a similar view, with the exception that the printing head is turned to setting position.

In the specific example illustrated by the drawings the rigid main frame of the machine consists of the top or cross portion 1, from the ends of which the two parallel vertical side bars 2, depend, and the base, bottom or face plate 3 arranged horizontally between and detachably affixed to the lower ends of the side bars 2. The frame top 1, is formed with the central vertical tubular guide 10, to receive and permit vertical reciprocation therein of the tubular stem or handle 4, of the yoke. This stem 4, is surmounted by a knob 5, socketed or recessed to fit removably on the upper end of the stem. The knob is removably secured on the stem by a vertical screw 50 passed down through the knob and screwing through a threaded vertical opening in washer 40, fixed in the upper end of the stem, and forming the upper abutment for the yoke elevating coiled spring 6, arranged longitudinally within the stem 4, and at its lower end bearing against abutment 11, in the lower end of the stem and affixed through slots 41, in the stem to the frame top 1.

The frame head or top 1, can, if so desired, be formed by a channel bar suitably coupled and secured to the upper ends of the frame side bars 2. I show each frame side bar 2, composed of a channel bar having inturned opposite longitudinal flanges forming the longitudinal guide or slideways for the yoke. At its lower end each side bar 2, rests on and abuts squarely against the top face of the face plate 3, and in the example shown said face plate is removably secured to the lower ends of said frame bars by screws 30, passed inwardly and horizontally through vertical ears 31 arranged at the outer faces of the frame bars 2, and usually formed and bent up from the piece of sheet metal forming the face plate 3, although if so desired, said bars can be otherwise formed and attached.

Between the frame bars 2, the face plate is formed with a central longitudinal slot or opening 32, at the printing line for the projection of the printing characters of the

printing head when performing a printing stroke or movement. If so desired, said face plate can on both sides of slot 32, be formed with recesses or depressions 33, parallel with the slot 32 and opening through the top of the face plate to receive the type of the printing head adjacent to the printing line, when said head has been depressed to its limit of printing movement.

I show both ends of the face plate formed with edge recesses or notches 34 opposite the ends of the printing line or slot 32, and at the center of the inner ends of these recesses or notches I show small outwardly projecting pointers 35 arranged within the recesses and directly opposite the ends of the printing slot 32 and forming printing line indicators.

The vertically reciprocating yoke comprises a cross head 7, to which the handle stem 4 is rigidly secured and from the center of which it rises. This cross head 7, is horizontally arranged in the frame with its ends extending into the frame bars 2, and fitting and vertically reciprocating between the longitudinal flanges of said bars.

If so desired the cross head 7, can be formed by a channel bar having the longitudinal depending side flanges. The vertical legs 8, of the yoke depend from the ends of said cross head and at their upper ends extend up into the yoke between the side flanges thereof and are riveted or otherwise fixed thereto. I show the yoke legs 8, formed by channel bars having out-turned longitudinal edge flanges extending within the side bars of the frame, so that the outer side faces of the oposite edge flanges of each leg are arranged in sliding engagement with the inner side faces of the edge flanges of a frame side bar. The yoke legs reciprocate within the frame side bars and the legs and side bars with their overlapping edge flanges form vertical inclosed passageways or tubes throughout the length of the legs and approximately throughout the length of the frame side bars which in the present instance are utilized for the passage of the inking ribbon as hereinafter set forth.

The printing head is carried by the reciprocating yoke and is arranged horizontally between and confined to the yoke legs to oscillate on a horizontal axis. This printing head comprises a type or printing disk carrier, and a series of annular parallel type or printing disks centered and mounted on said carrier and each capable of separate or independent rotation or adjustment thereon to present any desired type or character thereof at the printing line.

The carrier 9, consists of an elongated strong or durable body of metal or other suitable material having an exterior bearing surface or surfaces to receive, center and form the bearing surface for the annular type disks 10, arranged concentrically on said carrier and adapted to be separately turned or rotated thereon. In the present instance, I show the carrier comprising longitudinal ribs or flanges radiating from the longitudinal axis of the carrier and having their longitudinal outer edges forming bearing surfaces of a common radius for the type disks. The top flange of the carrier is formed with a longitudinal socket 110, containing independent spring-pressed radial pawls 12, one for each type disk. The inner edges of the type disks are notched at 13, to receive the pawls for normally holding the disks against rotation on the carrier, while at their outer edges, the disks are formed with radiating spaced printing type or characters. I usually provide non-rotating spacing rings 14, separating the disks and having depending portions separating said pawls or dogs 12, so that each disk can be turned on the carrier independently of the remaining disks to present any desired printing character thereof, at the printing line. The disks, rings and carrier are preferably so constructed and arranged that the disks and rings can be slipped longitudinally onto the carrier over or from an end thereof when the carrier is removed from the yoke.

The ends of the carrier are faced by enlarged end disks, heads, plates or washers 15, each of a slightly greater diameter than that of the type disks so that the said end disks project beyond the circle of the type disks, except at the lower portions of the disks where they are tangentially reduced to permit the portions of the type disks at the printing line to project down below the horizontal plane in which the reduced lower edges of said disks are located. By thus reducing the lower portions of the end disks, the yoke is permitted to make its full downward printing stroke when the parts are properly adjusted for printing. These end disks 15, are removably secured to the carrier ends to rotate with the carrier. The printing head complete is removably secured to the yoke legs, by machine screws 16, or other suitable means, passed inwardly and loosely through transverse horizontal bearing openings or perforations in the flat intermediate portions of the yoke legs, between the side flanges thereof, and through said disks 15, and into longitudinal screw threaded sockets 17, in the ends of the carrier. The head 18, of each screw 16, is arranged at the face of its yoke leg between the flanges thereof, and each screw has a cylindrical bearing portion adjacent to its head to turn axially or rotate in the bearing opening in the yoke leg.

The screws form the horizontal longitudinal axis for the complete printing head and on which the same is adapted to turn, revolve or oscillate. The screws can be read-

ily removed to release the carrier from the yoke, when the yoke is removed from the main frame.

The printing head when in printing position, presents a line of printing characters above the printing line slot 32, in the bottom or face plate of the frame, and this printing line of the head is arranged opposite or between the lower reduced portions of the end disks 15, of the printing head. This printing line is indicated at the outer face of one (or both) end disk 15, by an arrow 19, or other suitable visible indicating mark or means, arranged at the end of the printing line and on the outer face of the disk so as to be readily visible when the printing head is turned from printing position.

Suitable means are provided to normally or releasably lock or hold the printing head in printing position, that is with the line of type set up for printing the desired matter, at the bottom of the printing head in position to project through the printing line slot 32, in the face plate, and whereby, when it is desired to change the matter set up in the printing line, the head can be released and turned a partial revolution say about one hundred and twenty degrees, to bring the printing line to the side or upper portion of the head where the printing line is readily visible from the side of the machine while standing in normal position. When the head has thus been brought to setting up position, the operator can readily turn each type disk to bring the desired character thereof to the printing line in setting up the line of matter he desires to print. When thus setting up the line for printing the indicator or indicators 19, at the end or ends of the printing head points or point the position of the printing line, and if only one indicator 19, is employed it can be located at the proper end of the printing head to indicate to the operator not only the position of the printing line but also the end of said line at which he should begin setting up. If so desired, means can be employed to detachably hold the printing head in setting position. For instance, in the example illustrated, I show a radial arm 20, arranged at the outer face of an end disk of the printing head and projecting outwardly, usually horizontally, beyond the periphery of the disk. This arm near its outer free end, is formed with a lateral projection or stop finger 21, adapted to spring into notches or recesses 22, 23, in said disk. The notch 22, is so located with respect to the printing line, that when the stop 21, enters said notch, the printing head will be thereby held and locked in printing position, but when the printing head is turned or rotated until the stop 21, enters notch 23, the printing head will be held and locked thereby in setting position. The arm 20, is usually formed by a spring plate with its free end spring toward the side face of the disk, so that when it is desired to release the printing head, the arm can be pressed laterally from the disk by its projecting outer end. The printing head can then be turned and the spring arm released so that its locking stop or finger will automatically snap into either notch as it passes under the stop.

The spring arm can be secured in any suitable manner and by any suitable means, although in the example illustrated, I show the arm extending inwardly across the edge flange of the frame side bar and through a recess in an edge flange of a yoke leg and secured at its end by one of the trunnion screws.

By arranging the end disks of the printing head so as to project beyond the circle of the printing characters thereof, except opposite the printing line of the head, said disks form stops which will engage the face or bottom plate of the frame and prevent complete downward movement of the head to print, when the head is not in proper printing position. By thus providing a stop device or mechanism, the machine will not print, even though accidentally depressed, when the head is in setting position, and such stop also acts as a reminder should the operator after setting up the desired line, neglect to restore the printing head to printing position.

The printed impression from the type set up in the printing line is made, on the operative stroke of the printing head, through the medium of an inking ribbon *a*, at its intermediate portion stretched horizontally and longitudinally of the top face or bottom plate and over the printing slot 32 thereof. At the opposite ends of the face plate, said ribbon passes under transverse guide pins 25, extending between and secured in the edge flanges of each frame side bar and spaced but a short distance above the top surface of the face plate. The portion of the ribbon over the face plate is guided and held against lateral displacement by the pairs of opposite vertical lugs 35′, rigid with and extending up from the face plate and if so desired straddling the end portions of the guide pins.

From the guide pins 25, the opposite end portions of the ribbon pass upwardly through the vertical inclosed passageways formed between the flanged frame bars and yoke legs and through the upper open ends of the yoke legs and open tops of the ends of the yoke cross head, to and around ribbon spools 26, mounted at the ends of the yoke cross head.

The opposite end portions of the yoke cross head are vertically and longitudinally slotted to receive the ribbon spools which spools are rigid with their horizontal transverse shafts or axes 27, mounted to rotate in

the upwardly extending side ears 70, of the cross head. At one projecting end each spool spindle or shaft 27, is provided with a milled or roughened head or nut 28, by which the spool can be rotated to wind the ribbon thereon or feed the same therefrom.

Each spool is provided with a toothed wheel or annular toothed or ratchet edge 29, rigid therewith and engaged by the toothed end of a spring pawl or the like to normally or yieldingly hold the spool against rotation even under the tension of the ribbon thereon during the operation of the machine, but which will permit rotation of the spools by the heads or thumb pieces 28.

The holding pawl device for both ribbon spools can consist of a single spring 71, arranged longitudinally within the yoke cross head and secured therein at its central portion, at 72, and having free upwardly springing opposite toothed ends 73, respectively engaging the toothed edges of the spools.

As the ribbon spools are carried by the yoke, while the lower intermediate or working portion of the ribbon is confined to the frame bottom or face plate, it is obvious that unless means are provided to take up the slack during the downward or operative stroke of the yoke, the working portion of the ribbon will not be kept under the desired tension above the face plate.

Various means can be provided to maintain the ribbon under the desired tension and in the desired position or connection during the operation of the machine as well as while the yoke is in its normal position when the machine is at rest. For instance, at each spool I show an upwardly springing tension guide device carried by the yoke. These guides are arranged above the open upper ends of the legs and cross head ends and the ribbon passes over the same and inwardly to the upper portions of the spools. Each tension guide consists of a U-shaped spring 74, having its legs extending inwardly on opposite sides of a spool and secured at their inner ends 75, to the yoke cross head. The cross bar of the free outer upwardly springing end of the spring forms the ribbon guide and bears upwardly against the ribbon to stretch the same and maintain the proper tension thereon. As the yoke descends on its operating stroke, the free ends of these springs move upwardly and maintain the desired tension on the ribbon.

If so desired, the legs of each spring can be formed with coils or loops 76, to increase the spring tension and flexibility of the spring.

It is obvious that the ribbon can be readily adjusted whenever desired to present a fresh working portion thereof over the frame face plate.

It is obvious that other forms of printing heads than the specific form herein disclosed might be employed, in connection with certain other features of my invention, and that means for maintaining the ribbon in position during operation might be employed, within the spirit of my invention, other than tension devices at both ends of the yoke cross head, and that other forms of frame and yoke might be employed in connection with various features of my invention, and it is also obvious that various modifications, changes or additions might be resorted to without departing from the spirit and scope of my invention and hence I do not wish to limit myself to the exact structures disclosed.

What I claim is:—

1. In a stamping machine comprising a movable printing head, a face plate having a slot at the printing line and at its end having an inwardly extending edge recess and a line indicating pointer within the recess and projecting from the inner edge thereof, whereby the pointer is protected or guarded by the end edges of the plate at the exterior of the recess.

2. A stamping machine comprising a main frame, a reciprocatory yoke guided thereby, and a printing head mounted to turn or oscillate in and carried by said yoke and comprising separately movable printing disks and means for normally locking said head to said yoke in printing position and for releasably locking the same in setting position with respect to said yoke.

3. A stamping machine comprising a main frame, a reciprocatory yoke provided with a printing head mounted in the yoke to turn therein independently thereof on an axis arranged transversely of the direction of the reciprocation of the yoke, means to normally lock the head in printing position, and stop means for limiting the movement of the yoke against performing a complete operative printing stroke, when said head is turned from printing position.

4. A stamping machine comprising a frame, a reciprocatory yoke, a printing head carried by the yoke and mounted to rotate in the yoke on a longitudinal axis, said printing head consisting essentially of a carrier having a series of type disks mounted thereon and separately adjustable to bring any type thereof to the printing line, said carrier provided with a visible indicator indicating the printing line, and means for normally holding said head in printing position in said yoke.

5. A stamping machine comprising a main frame, a yoke, a printing head mounted in the yoke to turn on a longitudinal axis to move the printing head, independently of said yoke to and from printing and setting positions, means to normally lock the head to the yoke against turning therein, said

head comprising a series of separately adjustable type disks, said head having an indicator to point out the printing line thereof.

6. A stamping machine having a rotary printing head whereby the head can be rotated on its longitudinal axis bodily to and from printing and setting positions, said head comprising a series of separately adjustable type disks whereby any type of any disk can be brought to the printing line, said head being provided with a visible printing line indicator, for indicating the printing line of the disks when said head has been rotated to setting position substantially as described.

7. A stamping machine comprising a printing head rotatable on its central longitudinal axis to and from printing and setting positions, a radial locking arm fixed with respect to the rotary movement of said head, said head provided with notches to receive said arm for releasably locking the head in printing and setting positions.

8. A stamping machine comprising a reciprocatory yoke, a printing head carried thereby and bodily turnable therein to and from printing and setting positions and provided with locking notches whereby the head can be held in printing and setting positions respectively, and a locking arm fixed to the yoke and adapted for locking engagement with either of said notches for locking said head.

9. A stamping machine comprising a yoke having legs, and a printing head arranged between said legs and turnable on a longitudinal axis and provided with means for normally locking the same in printing position, said head comprising a carrier, a series of independently adjustable type disks centered and mounted thereon, end disks for the carrier, and trunnion screws on which said head turns, said screws being passed inwardly through said legs and into said carrier.

10. A stamping machine comprising a frame having a bottom plate, a yoke adapted to reciprocate in the frame above said bottom plate, and a printing head carried by the yoke and mounted to turn therein to and from printing and setting positions, said head provided with an enlarged stop disk turnable therewith and at one portion reduced to permit the head when in printing position to perform a full operative stroke, whereby when said head is turned from printing position said disk will engage said bottom plate and prevent said yoke from making a full operative stroke.

11. A stamping machine comprising a yoke, a main frame therefor, a printing head carried by the yoke and turnable therein to and from printing position and comprising a type disk carrier, a series of independently adjustable type disks centered on the carrier, and end disks of greater diameter than the type disk to form stops against full downward movement of the yoke, said end disks being reduced at their portions opposite the printing line of the head to permit full downward movement of the head when in printing position.

12. A stamping machine comprising a yoke having legs, a printing head arranged between said legs and having axial end supporting trunnions mounted in said legs and on which said head is bodily turnable independently of said yoke, and means whereby said head is normally held to said yoke and against turning or oscillation therein, said head comprising a longitudinally arranged carrier and a series of parallel type disks mounted and turnable on said carrier, substantially as described.

13. A stamping machine comprising a support, a printing head carried thereby and having end supporting trunnions mounted in said support and on which said head is bodily rotatable independently of said support, and means whereby said head is releasably held to said support against rotating or oscillating therein, said head comprising a longitudinal carrier at its end having said trunnions, and a series of independently rotatable type disks carried by and mounted to turn on said carrier, substantially as described.

14. A stamping machine comprising a yoke, a printing head carried thereby and bodily rotatable in said yoke, and means whereby said head is releasably held against rotating or turning in said yoke, said head comprising a longitudinal carrier having longitudinal radiating flanges the outer edges of which form bearing surfaces, one of said flanges being socketed, spring held detents therein, and a series of parallel independently rotatable type disks mounted on said carrier, and centered on said bearing edges and in normal holding engagement with said detents, substantially as described.

15. A stamping machine, comprising a yoke, a printing head carried thereby, and rotatable therein, and means releasably holding said head in printing position and against rotation in said yoke, said head comprising a longitudinal carrier, a series of independently rotatable parallel type disks removably mounted and centered on said carrier, and heads at the carrier ends and confining said disks thereon, substantially as described.

16. A stamping machine comprising a yoke, a removable printing head carried by axial trunnions removably mounted in said yoke, whereby said head is rotatably mounted in said yoke, and means for normally locking said head to said yoke in printing position and against rotation, said

head comprising a longitudinal carrier at its ends provided with said trunnions, rotary type disks removably and concentrically mounted on said carrier, and means removably arranged at the ends of said carrier and confining said disks thereon.

17. A stamping machine comprising a yoke having legs, and a printing head arranged between said legs and comprising a longitudinal rotary carrier, a series of parallel type disks arranged and rotatable on said carrier and provided with spring detents, means confining said disks on the carrier, and removable axial trunnion screws, passed inwardly through said legs and screwing longitudinally into the ends of said carrier, the heads of said screws being arranged at the outer faces of said legs.

18. A stamping machine comprising a main frame having channel side bars, a reciprocatory yoke arranged in the frame and having channel legs, the out turned flanges of which engage the channels of said side bars, a printing head carried by said yoke and comprising a longitudinal carrier and type disks mounted and rotatable thereon, and axial trunnion screws removably confining said head in said yoke and forming the support therefor, said screws having their heads arranged between the flanges of said legs and passed inwardly through said legs and screwing longitudinally into the ends of said carrier.

19. A stamping machine comprising a frame having side bars and a base plate having an opening at the printing line, a yoke held to reciprocation in said frame, a printing head carried by said yoke and arranged above said base plate, and comprising a carrier and a series of type disks independently rotatable on said carrier, an inking ribbon mechanism comprising means whereby the working portion of an inking ribbon is interposed between the printing line of said head and said face plate, said head being mounted to rotate bodily from operative printing position for setting, and means for releasably holding said head in operative printing position.

20. In a stamping machine, in combination, a main frame, a yoke confined to reciprocate therein and having channel legs, a printing head arranged between said legs, and an inking ribbon mechanism comprising means to maintain a working portion of an inking ribbon interposed between the printing line of said head and the work to be imprinted, ribbon spools carried by said yoke, and means whereby the portions of the ribbon between said working portion and the spools are arranged in the channels of said legs.

21. In a stamping machine, in combination, a main frame having side bars, a reciprocatory yoke having legs confined to slide longitudinally of said bars, said legs and bars inclosing vertical channels open at the upper and lower ends, a printing head carried by said yoke, and an inking ribbon mechanism comprising ribbon spools carried by said yoke, and guides whereby an inking ribbon passes from said spools into and through said channels with an intermediate working portion thereof arranged below the printing line of said head.

22. In a stamping machine, in combination, a main frame having a base plate with an opening along the printing line and inking ribbon guides adjacent the end portions of said plate, a reciprocating yoke having a printing head above said plate, inking ribbon spools carried by said yoke, and a spring-held tension-maintaining ribbon guide, said base plate ribbon guides adapted to maintain an intermediate working portion of an inking ribbon, wound on said spools, stretched below the printing line of said head, and said spring held ribbon guide adapted to maintain said ribbon working portion under tension, and take up the ribbon slack during the movement of said yoke.

23. In a stamping machine, in combination, a main frame comprising side bars and ribbon guides arranged adjacent to the lower ends thereof, a reciprocating yoke in said frame having legs in sliding engagement with said bars, a printing head carried by said yoke, and an inking ribbon mechanism comprising ribbon spools and an inking ribbon at its opposite ends wound thereon with the intermediate portion of the ribbon between said spools extending vertically from the spools to said guides and stretched horizontally between said guides and below the printing line of said head.

24. In a stamping machine, in combination, a printing head, a movable carrier therefor, a main frame, and an inking ribbon mechanism comprising guides whereby an intermediate working portion of said ribbon is stretched below the printing line of said head, carriers for said ribbon, and a tension-maintaining and slack-taking-up ribbon guide comprising a spring arm at its free end having a ribbon engaging guiding portion.

25. A stamping machine comprising a yoke having a head recessed at its ends, and legs, a printing head arranged between and carried by said legs, ribbon spools arranged in the ends of said head, ribbon guides, and an inking ribbon at its ends wound on said spools and having an intermediate working portion below said head, said ribbon passing longitudinally of said legs from said working portion to said spools.

26. A stamping machine comprising a main frame having stationary ribbon guides arranged at opposite ends of the printing

line, a reciprocating yoke carrying a printing head and comprising a recessed cross head, inking ribbon spools carried by said cross head and arranged in said recesses thereof and provided with controlling means, an inking ribbon carried by said spools and engaging said guides whereby an intermediate portion of the ribbon is stretched above the printing line and below said printing head, and means for taking up slack of said ribbon during the reciprocation of said yoke.

27. A stamping machine comprising a main frame, a reciprocating yoke provided with a printing head, inking ribbon spools carried by the yoke, means carried by the main frame for maintaining an intermediate working portion of the ribbon stretched between the surface to be imprinted and the printing line of said head, and a spring arm at its free end engaging the ribbon to take up slack.

28. A stamping machine comprising a main frame having ribbon guides at its lower portion between which an intermediate working portion of an inking ribbon is adapted to be stretched above the surface to be imprinted, a reciprocating yoke having a printing head with its printing line above and movable toward and from said working portion of the ribbon, and a pair of spools for said ribbon both carried by and movable with said yoke, and means for maintaining said ribbon under tension and taking up the slack thereof during the reciprocation of said yoke, substantially as described.

29. A stamping machine comprising a main frame having side bars and a bottom plate, transverse guide pins adjacent the lower ends of said side bars, a reciprocating yoke having legs in sliding engagement with said bars, said yoke having a cross head, a printing head carried by the yoke, inking ribbon spools carried by said cross head, an inking ribbon stretched across said bottom plate between said pins and extending upwardly between each pair of side bars and legs to and wound on said spools, means normally holding said spools against rotation, and springs mounted on said cross head and having free ends engaging said ribbon to maintain the same tension during the reciprocation of said yoke.

30. In a stamping machine, in combination, a main frame having a face plate with an opening at the printing line and provided with inking ribbon guides adjacent the ends of said opening, a reciprocating yoke in said frame provided with a printing head opposite said plate and adapted to print through said opening, inking ribbon carriers and controlling means, and an inking ribbon, in engagement with said guides and having an intermediate working portion stretched along said face plate and over said opening therein.

31. A stamping machine comprising a main frame, a reciprocating yoke provided with a printing head, an inking ribbon, inking ribbon carriers and guides, whereby a working portion of said ribbon is maintained between the printing line of said head and the work to be imprinted, and a U-shaped spring or tension wire straddling said ribbon and at its laterally springing free end having an engaging portion extending across the ribbon and constantly held bearing against the same to take up the slack thereof.

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

IRVING EYER.

Witnesses:

MARGARET T. EYER,

STANLEY COLLIN.