C. A. MEISEL.

NUMBERING HEAD.

APPLICATION FILED APR. 28, 1921.

1,421,525.

Patented July 4, 1922.

Fig. 1.

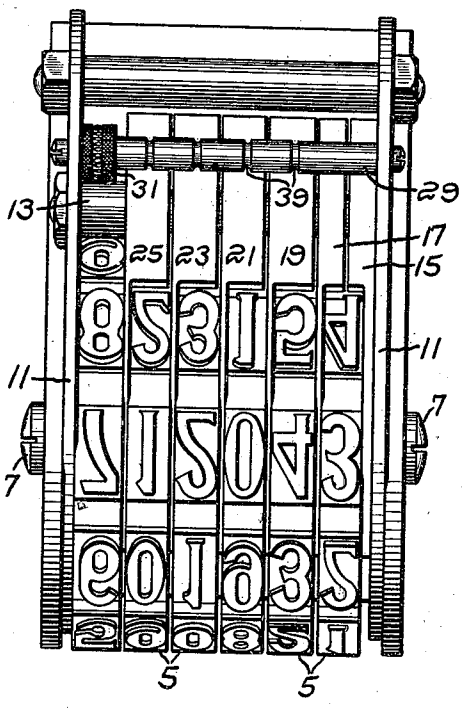


Fig. 2.

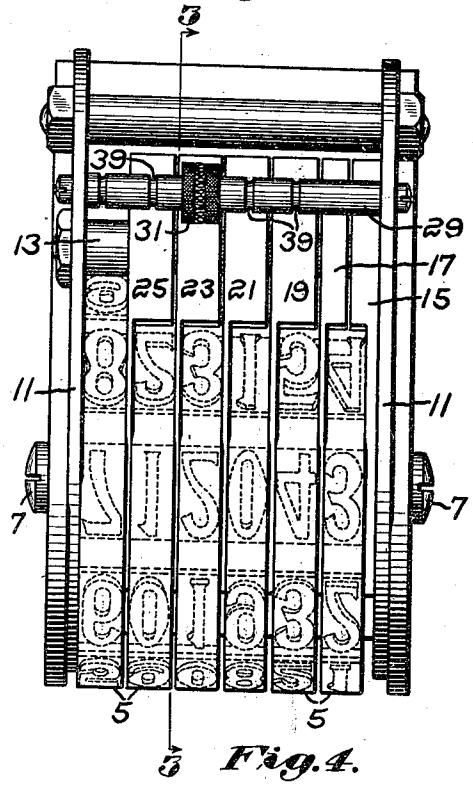


Fig. 3.

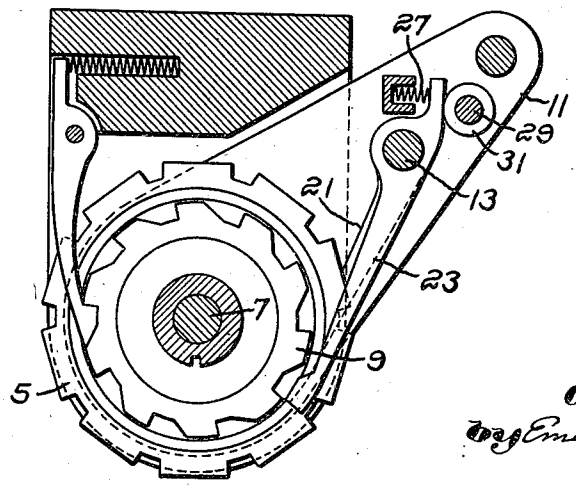
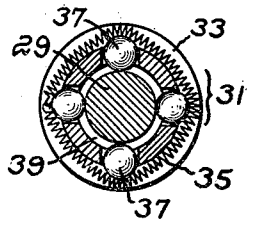


Fig. 4.



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UNITED STATES PATENT OFFICE.

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NUMBERING HEAD.

1,421,525. Specification of Letters Patent. Patented July 4, 1922.

Application filed April 28, 1921. Serial No. 465,144.

To all whom it may concern:

Be it known that I, CHARLES A. MEISEL, a citizen of the United States, and a resident of Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Numbering Heads, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to numbering heads, that is, to printing appliances which are adapted to print a series of numbers. Numbering devices of this nature when designed for use with high speed printing presses must be very accurately and strongly constructed to permit them to have a high speed since they are driven by an intermittent motion. The object of the invention is to provide for a mechanism of this nature of wide range of application.

My invention will best be understood by reference to the following description of an illustrative embodiment thereof shown by way of example in the accompanying drawings, wherein:

Figs. 1 and 2 are end elevations of a numbering head with parts in different positions of adjustment;

Fig. 3 is a section on the line 3—3 of Fig. 2; and

Fig. 4 is an enlarged section on the line 4—4 of Fig. 2.

Referring to the drawings, I have shown a numbering head of a type such as is shown in Patent No. 989,860, granted April 18, 1911, to myself and Francis Meisel, and embodying a series of type bearing wheels 5 mounted on the shaft 7 and adapted to be rotated by associated ratchet wheels 9. A yoke 11 pivoted on the same center as 7 is adapted to be reciprocated in the operation of the head and extending between the arms thereof is a shaft 13 on which are pivoted a series of pawls 15 to 25, one for each of the type wheels 5, each pawl being pressed toward its ratchet by a spring 27. It will be understood that by mechanisms such as described in the patent aforesaid the pawls are so governed that the units wheel is advanced a step by pawl 15 for each reciprocation of the yoke 11 and succeeding wheels for the successive powers of ten advanced at proper intervals by their pawls.

I have herein shown a numbering head having six wheels adapted to print from 0 to 999999. The millionth impression will restart the series. Obviously it may be desired to number work in smaller series and hitherto either a head of different size had to be substituted for the larger head or the head had to be taken apart and some of the numbering wheels removed. This was obviously inconvenient and time consuming and had a far from beneficial effect on the mechanism of the head.

In accordance with my invention I provide means for permanently throwing out of operation one of the feed pawls. Thus, referring to Fig. 2, the pawl 23 for the thousands wheel is held out so that that wheel will never come into action. After the head has printed to 999 it will not advance to 1000 but will return to 000 and repeat the series from 000 to 999. This is effected without any dismemberment of the head proper.

To permit selective suppression of the various pawls I may provide a rod 29 extending between the arms 25 of the yoke adjacent the tails of the pawls and having provided thereon an adjustable member 31 which may be slid along the rod 29 and brought opposite the tail of a desired pawl to swing the same against the force of its spring 27 and hold it away from its ratchet 9. The member 31 may be housed normally opposite the numbering wheel for the highest power of ten, as shown in Fig. 1, to the left in the figure of the pawl 25 which operates this wheel. If slid along the rod 29 to the right in such a position as shown in Fig. 3 it will hold out whichever pawl it is opposite and permit only the numbering wheels to the right to operate. The member 31 conveniently takes the form of a disk provided with a circumferential recess 33 housing a spring 35 which normally presses inwardly through radial openings balls 37. The rod 29 is provided opposite each pawl with a recess 39 in which the balls 37 are adapted to snap under the influence of the spring. This is one example of a suitable catch whereby the member is positioned opposite the desired pawl while permitting it to be shifted by manual operation when desired.

Having described in detail the particular embodiment of my invention shown by way of example in the accompanying drawings, the principles exemplified thereby which I

claim as new and desire to secure by Letters Patent I shall express in the following claims.

Claims:

1. A numbering head comprising a series of type wheels for the powers of ten, ratchets and pawls for operating the same and shiftable means adapted to be brought into cooperation with one or another pawl for holding it from its ratchet.

2. A numbering head comprising a reciprocating yoke carrying between the arms thereof pawls for operating the numbering wheels, a bar between said arms and a member movable along said bar to be brought opposite a selected pawl to hold it away from its ratchet.

3. A numbering head comprising a reciprocating yoke carrying between the arms thereof pawls for operating the numbering wheels, a bar between said arms having recesses opposite the pawls and a member having a catch engageable with said recesses movable along said bar to be brought opposite a selected pawl to hold it away from its ratchet.

In testimony whereof, I have signed my name to this specification.

CHARLES A. MEISEL.