(No Model.)

C. L. WARE.

AUTOMATIC NUMBERING MACHINE.

No. 276,986. Patented May 1, 1883.

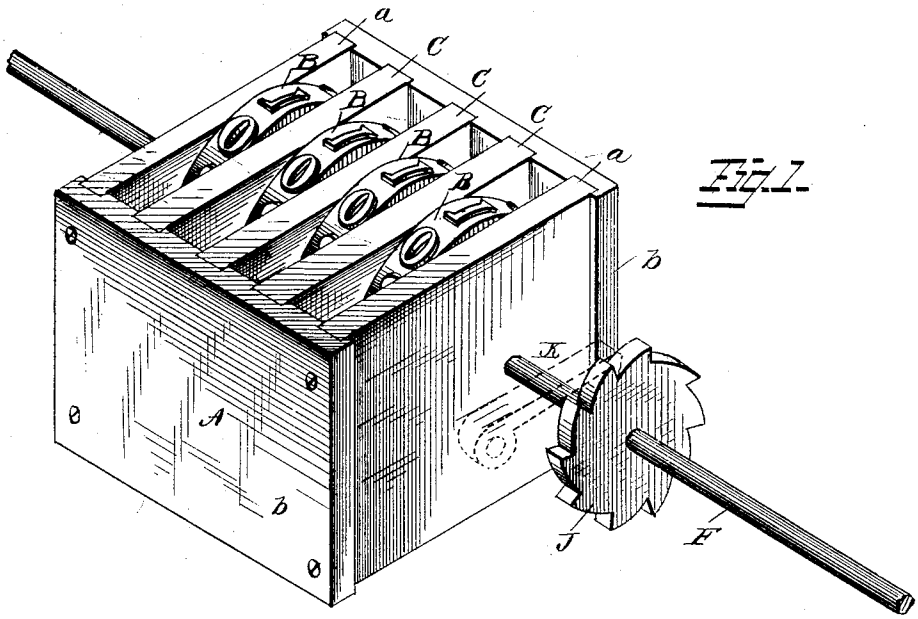


Fig. 1.

Fig. 2.

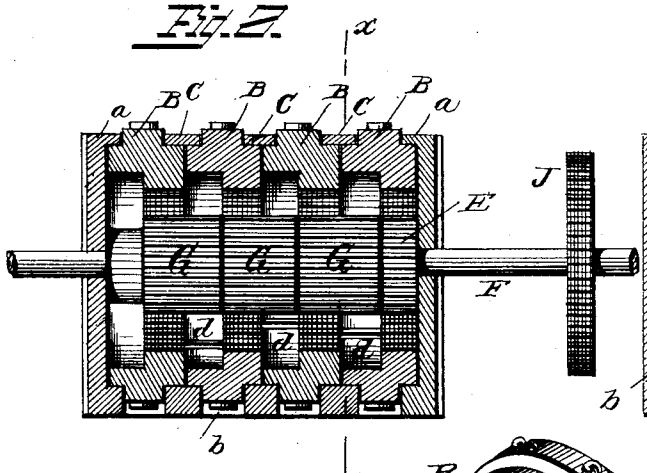


Fig. 3.

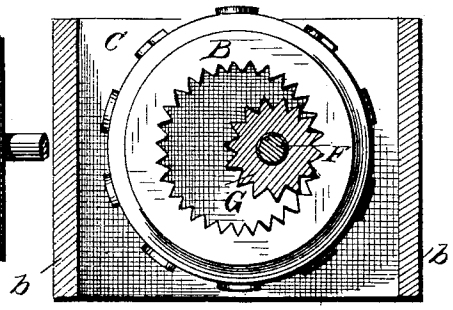
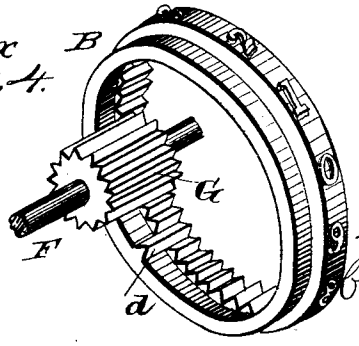


Fig. 4.



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UNITED STATES PATENT OFFICE.

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AUTOMATIC NUMBERING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 276,986, dated May 1, 1883.

Application filed November 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, C. L. WARE, of Huntington, in the county of Cabell and State of West Virginia, have invented certain new and useful Improvements in Automatic Numbering-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

In the drawings, Figure 1 is a perspective view of my improved device in its frame adapted to be locked in a form of type. Fig. 2 is a vertical section of my improved device. Fig. 3 is a transverse section taken through Fig. 2 in the plane indicated by dotted line *x x*. Fig. 4 is a perspective view of one of the rings B and a loose pinion, G, showing the tooth *d*.

The nature of my invention consists in certain novel construction of parts and combinations of the same, as will be hereinafter set forth and claimed.

The letter A designates a rectangular frame, which may be of any desired superficial area, and which is equal in height to about the height of a printer's type. This frame is composed of separable plates *a* and grooved binding-plates *b b*. Inside of these plates I apply a number of internally-toothed rings, B, which are separated by divisions C, and which are rabbeted into the said divisions, so that they are independently movable of each other. On the periphery of each ring B is fixed a number of types, indicating numbers, letters, or other characters, and which so far project beyond the plane of the upper edge of the frame A as that they will, as they are brought consecutively into position for making an impression, print such impression simultaneously with the printing of the general impression from the "form" of stationary type. The first one of the series of printing-rings B engages with a pinion, E, which is keyed on a shaft, F, having its bearings in the end plates of the frame A. This shaft is arranged eccentrically to the axes of the said internal rings, B, so that the pinion E is brought in close relation and engagement with the first ring, so that it is positively driven by the said pinion. The other rings are respectively moved by means of pinions G, which are loosely applied on the shaft F, which pinions form connecting-links between the several rings, and are moved by the engagement of auxiliary teeth *d* with the several loose pinions G of the respective printing-rings.

Outside of the frame A, and keyed on the shaft F, is a ratchet-wheel, J, with which engages a hooked pawl, K. This pawl is moved by one of the shafts of the printing-press, so that it operates in harmony with the mechanism for taking an impression.

It will be seen from what I have above described that I have a device which can be locked up in a form, and which will print automatically in regular consecutive order the several numbers or characters designating the pages during the process of printing.

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

1. The combination of the subdivided frame A, the rotary type printing rings B, each one having a series of spur-teeth, and a single tooth, *d*, out of the plane of said spur-teeth, the fast pinion E on shaft F, and the loose pinions G on said shaft, all constructed and adapted to operate substantially in the manner and for the purposes described.

2. The combination of the subdivided frame composed of separable plates, the rotary type-faced internal spurred rings B, having single spurs *d*, arranged as described, the eccentrically arranged shaft F, its pawl and ratchet-wheel, and the fast and loose pinions E G, all constructed and adapted to operate substantially in the manner and for the purposes described.

CHARLES LLEWELLYN WARE.

Witnesses:

ROBERT TWYFORD ONEY,

JOSEPH MARION WYATT.