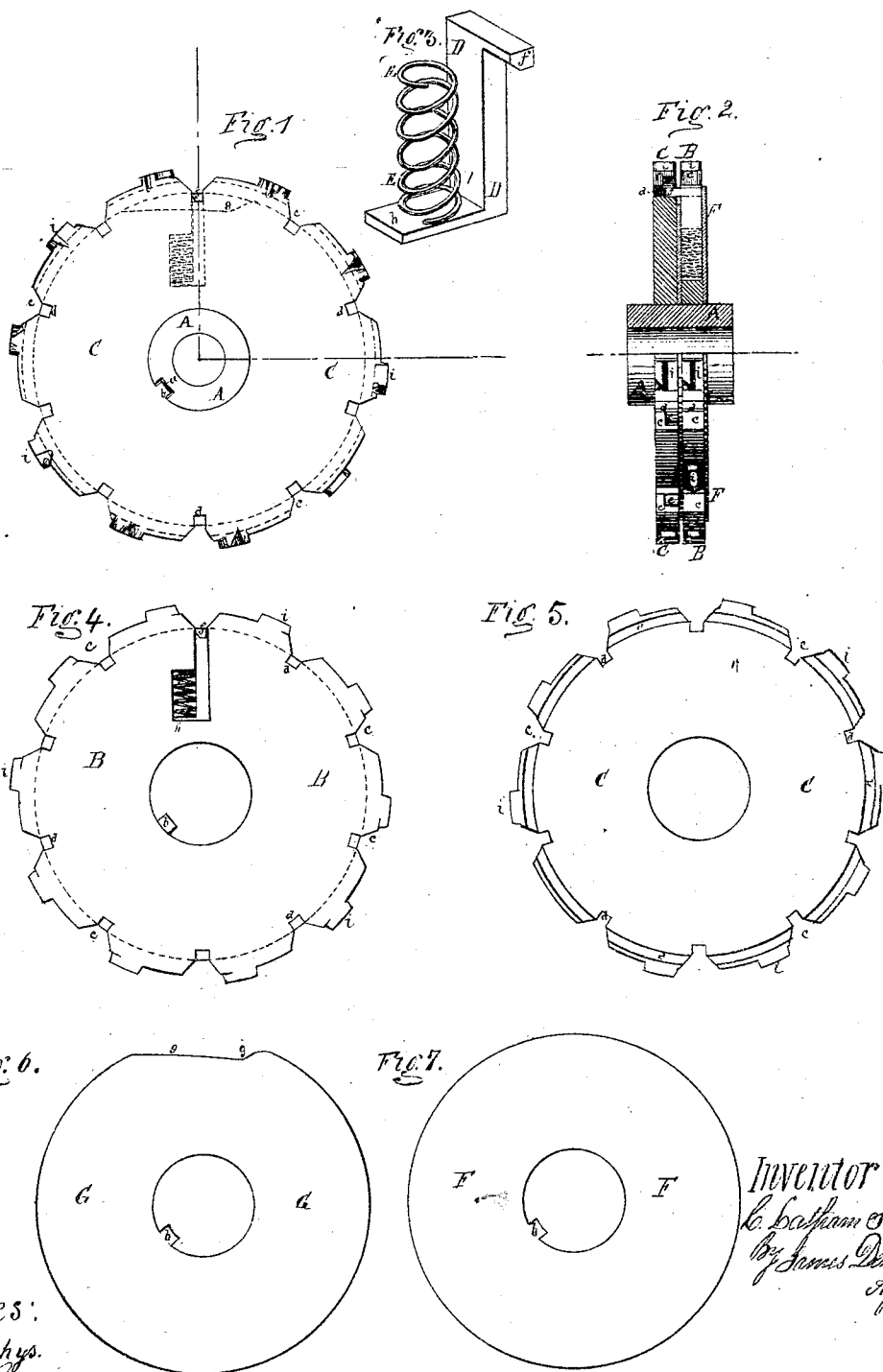


C. Latham Sholes.

Improvement in Numbering Machines.

No. 118,978.

Patented Sep. 12, 1871.



Witnesses:
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UNITED STATES PATENT OFFICE.

C. LATHAM SHOLES, OF MILWAUKEE, WIS., ASSIGNOR TO JAMES DENSMORE.

IMPROVEMENT IN NUMBERING-MACHINES.

Specification forming part of Letters Patent No. 118,978, dated September 12, 1871.

To all whom it may concern:

Be it known that I, C. LATHAM SHOLES, of Milwaukee, Wisconsin, have invented an Improvement in Numbering-Machines.

The invention is an improvement on my previous numbering-machine inventions, patented, the first April 30, 1867, and the second June 15, 1869.

The object of the invention is to provide a more certain and reliable way for the actuating revolving-disk of a numbering-machine at the proper time to clutch and actuate and revolve the adjoining complementary corresponding disk; and the nature of the invention is in the combination of a clutch-bar attached to the actuating revolving-disk of a numbering-machine with a circular groove in the complementary disk; and in the arrangement of a spring over a projecting-foot of the clutch-bar, so as continually to press such clutch-bar radially toward the axis of the disk.

The accompanying drawing and the following description thereof fully illustrate the invention, of which drawing—

Figure 1 represents a side view of the disks, from the side of the complementary disk opposite to the side of the circular groove, with the position and outline of the cam between the disks, and of the washer at the outer side of the actuating disk, and of the clutch-bar and spring, and of the groove marked in dotted lines. Fig. 2 represents a sectional view of a sector of the actuating and complementary disks, cam, and washer, and of the spring and clutch-bar between and therein, and a view of a segment of the perimeters of the two disks. Fig. 3 represents a perspective view of the spring over and resting on a projecting-foot of the clutch-bar. Fig. 4 represents an inner side view of the actuating-disk, with the clutch-bar and spring therein, and the position of the washer on the outer side marked in dotted lines. Fig. 5 represents an inner side view of the complementary-disk, the side next the actuating-disk. Fig. 6 represents a side view of the cam between the disks, which guides and operates the clutch-bar. Fig. 7 represents a side view of the washer on the outer side of the actuating-disk.

A represents a common round stationary axle. B represents an actuating numbering-disk, loosely on, so as to revolve around the axle A. C represents a complementary numbering-disk in the same way, on the axle A, next to the actuating-

disk B. D represents a clutch-bar within a mortise and slot in and through the actuating-disk B. E represents a spring within the mortise in the actuating-disk B, resting on the foot of the clutch-bar D. F represents a washer, rigidly on the axle A, on the outer side of the actuating-disk B, to hold the clutch-bar and spring D E within the mortise of the disk. G represents a cam, rigidly on the axle A, between the disks B C, to guide and operate the clutch-bar D. *a* represents a groove longitudinally in the surface of the axle A. *b* represents a spur, projecting radially inwardly from the inner circle or periphery of both the washer and cam F G and into the slot *a* of the axle A, whereby the washer and cam are held rigidly on the axle. *c* represents a series of notches in the perimeters of the disks B C, for an aligning-ratchet to fall into. *d* represents a series of radial slots projecting inwardly from the bottom of the notches *c* of the disks B C. *e* represents a circular groove near the edge of the complementary disk C, in the side toward and next to the actuating disk B. *f* represents a lateral arm of the clutch-bar D, which reaches and fits into the circular groove *e* in the side of the complementary disk C, and which, also, at the proper time, falls and fits into a radial slot, *d*. *g* represents a depression in the perimeter of the cam G. *h* represents a foot projecting laterally from the bottom of the clutch-bar D, at a right angle to the arm *f*, on which foot sets and rests the spring E. *i* represents a series of numbers engraved on the perimeters of the disks B C.

The disks, washer, and cam, B C F G, are common to my inventions patented April 30, 1867, and June 15, 1869. The spring E is similar to the spring of my invention, patented April 30, 1867, excepting that in that invention the spring is arranged so as constantly to press the clutch-bar outwardly, while in this invention the spring constantly presses the clutch-bar D inwardly. The clutch-bar D is similar to the clutch-bars of my inventions patented April 30, 1867, and June 15, 1869, excepting that in the invention patented April 30, 1867, the clutch-bar is pressed constantly by the spring, and in the invention patented June 15, 1869, the clutch-bar falls inwardly at the proper time by the gravity of its own weight, while in this invention the clutch-bar is pressed inwardly constantly by the spring E. The clutch devices of both the inventions, patented April

30, 1867, and June 15, 1869, are found, in working, to be more or less defective, and this invention is made to remedy the defects of those. And the essential devices of this invention are in pressing the clutch-bar inwardly instead of outwardly, as in the invention patented April 30, 1867, in using a spring to press it inwardly instead of using gravitation, as in the invention patented June 15, 1869, and in holding the clutch-bar in place by a circular groove in the disk.

In working, the actuating-disk B carries the clutch-bar D around with it within the groove *e* of the complementary disk C, while the complementary disk remains stationary on the axle A till the arm *f* of the clutch-bar reaches the depression *g* of the cam G, when the spring E presses

the clutch-bar inwardly till the arm falls into a radial slot, *d*, of the complementary disk, and then carries the complementary disk along the distance of a number, *i*, on the perimeter, when the cam again throws the arm out of the slot and into the groove, and so on.

I claim—

1. The arrangement of the spring over and directly on the foot of the clutch-bar, substantially as described.

2. The combination of the arm of the clutch-bar with the circular groove of the complementary disk, substantially as described.

Witnesses:

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