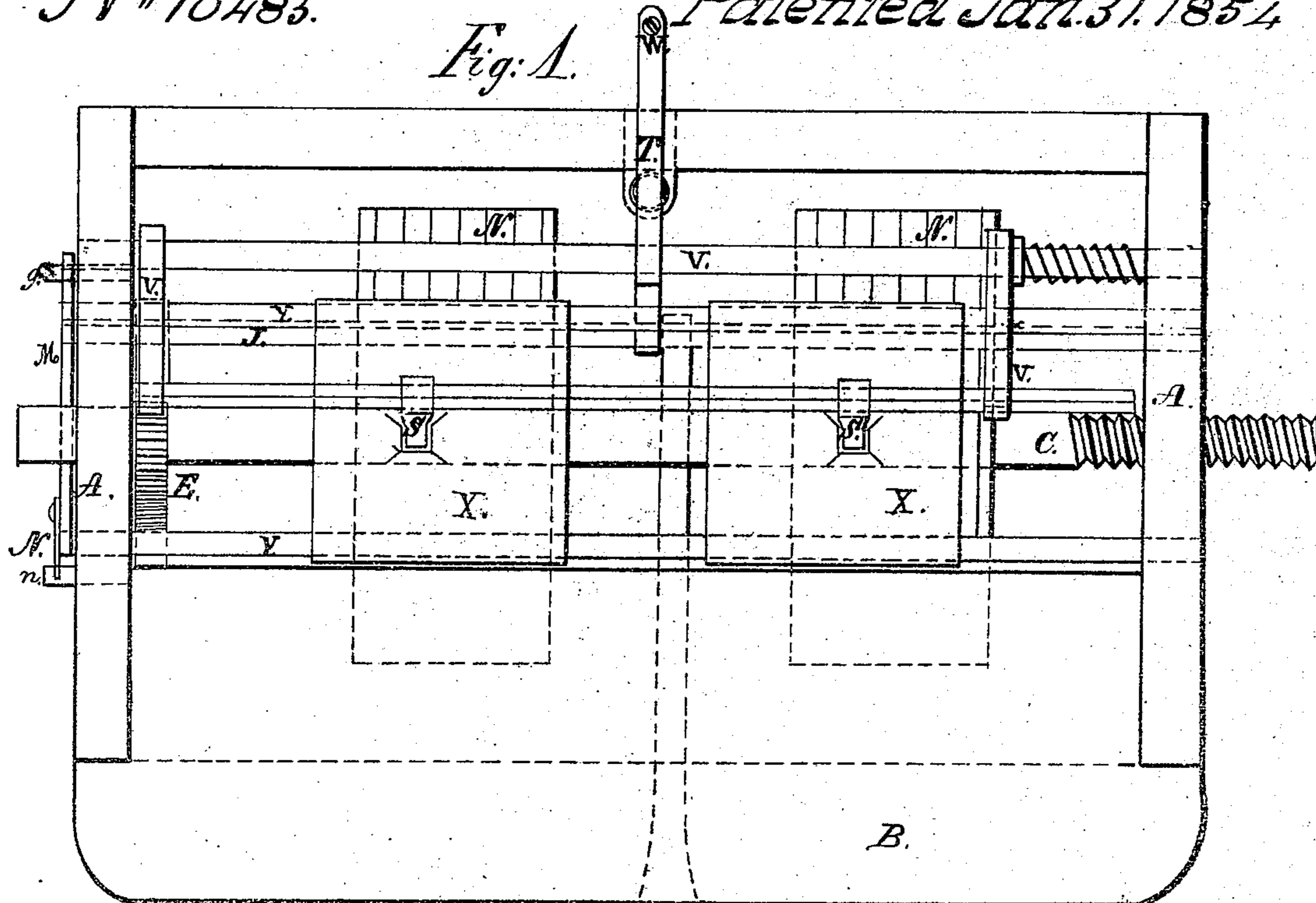


*E. Town. Sheet 1 of 2 Sheets.*  
*Book Paging Mach.*

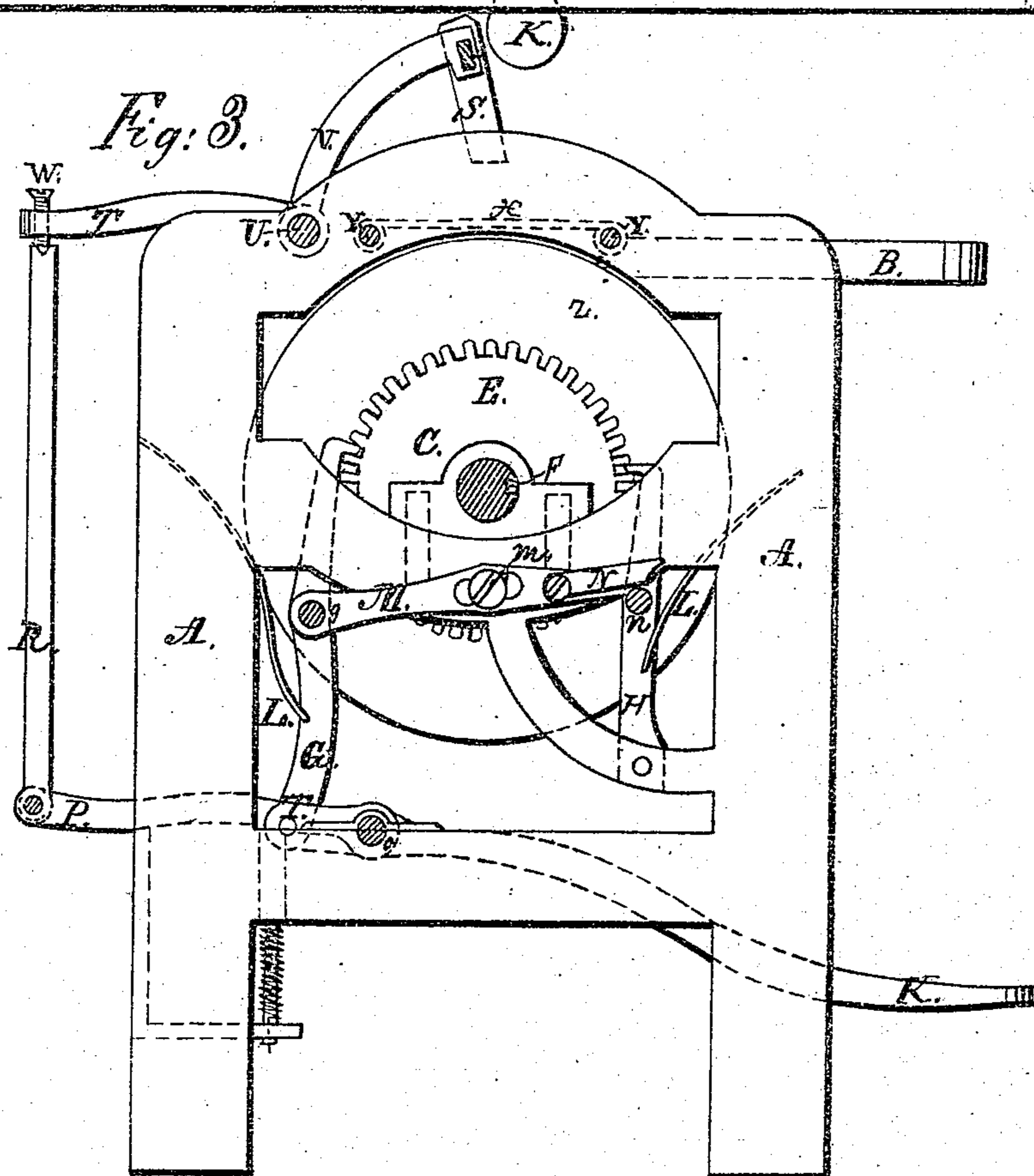
*N<sup>o</sup> 10485.*

*Patented Jan. 31. 1854.*

*Fig. 1.*



*Fig. 3.*

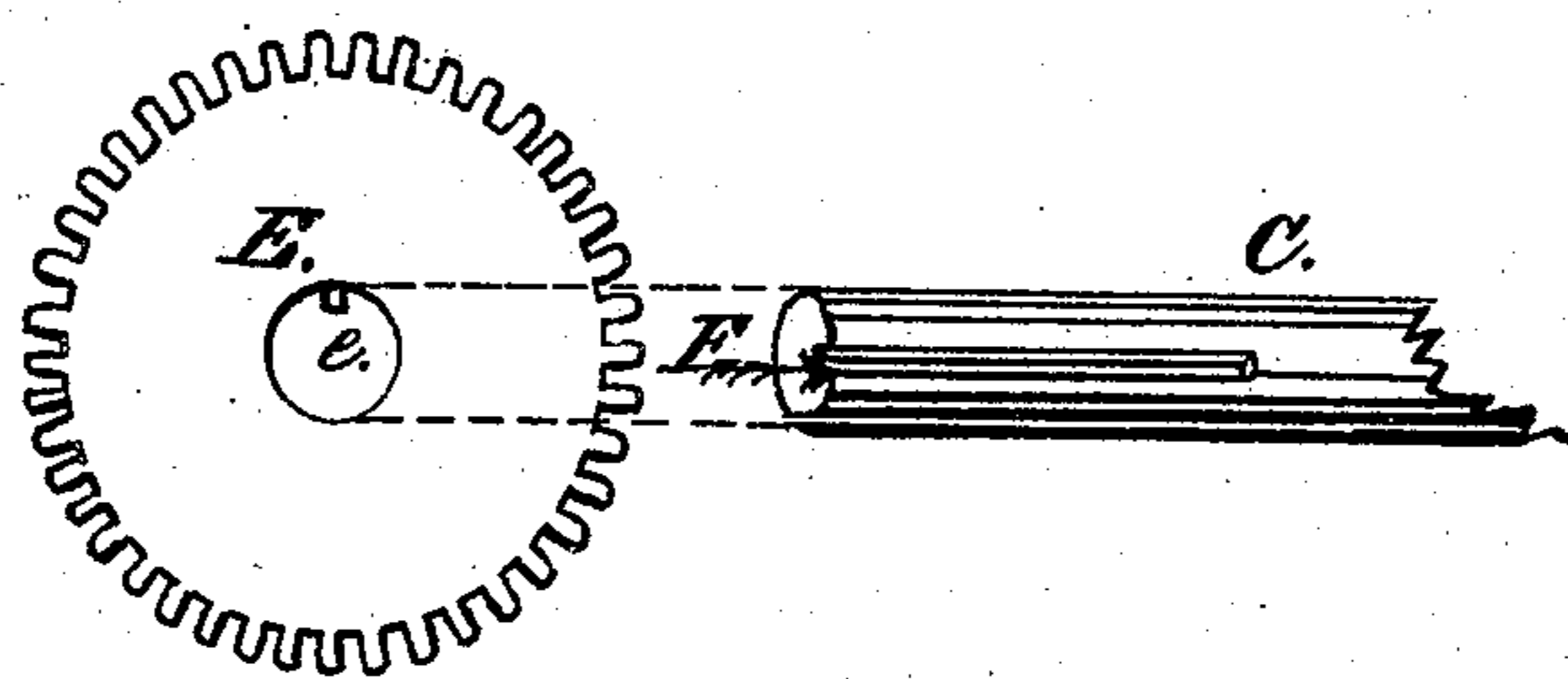


*E. Town. Sheet 2 of 2 Sheets.*  
*Book Paging Mach.*

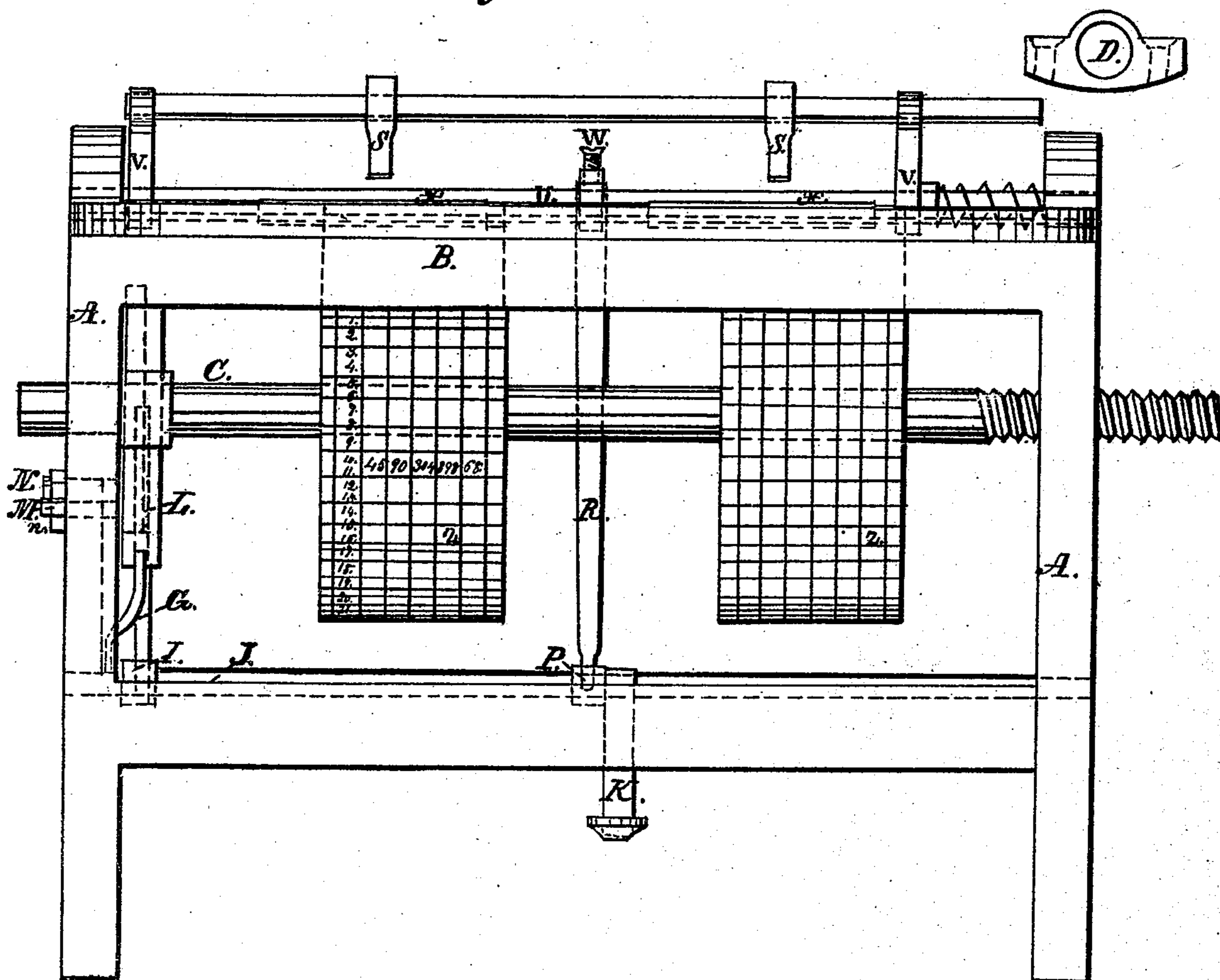
*Nº 10485.*

*Patented Jan 31. 1854*

*Fig: 4.*



*Fig: 2.*



# UNITED STATES PATENT OFFICE.

EDWARD TOWN, OF JERSEY CITY, NEW JERSEY.

## IMPROVED MACHINE FOR PAGING BOOKS.

Specification forming part of Letters Patent No. 10,485, dated January 31, 1854.

*To all whom it may concern:*

Be it known that I, EDWARD TOWN, of Jersey City, State of New Jersey, have invented a new and useful Machine for Numbering the Pages of Blank-Books and for other Purposes; and I do hereby declare the following to be a full description of the same.

The nature of my invention consists in arranging in a suitable frame one or more cylinders having arranged on their peripheries in spiral rows series of numbers from one upward. These cylinders are secured on a shaft, which is placed horizontally in the machine. On one end of it is a screw-thread, which works in a female screw secured to the frame of the machine, and on the other end is secured a cog-wheel, which is held from slipping round by a pin holding in a groove cut horizontally in the end of the shaft, so that as the worm at the opposite end of the shaft draws forward the cylinders the cog-wheel slips horizontally on it. This cog-wheel is operated by two pawls—a take-up and holdfast pawl—the former secured on a shaft which is operated by a foot-lever, which also operates a stamper-lever at the top of the machine, for taking an impression of the number as it is presented on the cylinder through an opening in the guide-plate.

But to describe my invention more fully, I will refer to the accompanying drawings, forming a part of this schedule, the same letters of reference, wherever they occur, referring to the same parts.

Figure 1 is a plan view of the machine. Fig. 2 is a view of the front elevation of the machine. Fig. 3 is view of the end elevation of the machine, showing the cog-wheel, pawls, and levers for operating the same. Fig. 4 is a detached view of the cog-wheel and a section of the shaft, showing the groove in it for holding the cog-wheel from slipping round on it.

Letter A is the frame of the machine, which may be made of wood or metal, as found most advisable, and having on the upper and front side of it a table-board, B, for holding the book during the operation of numbering it.

Horizontally across the frame is arranged a type-cylinder shaft, C, having on one end a screw-thread cut, and working in a female screw, D, secured to the frame of the machine. (See detached view, Fig. 2.) On the opposite end of the shaft is placed a cog-wheel, E, which is held from turning round on the shaft by a

pin, *e*, holding in a groove, F, cut horizontally in the end of the shaft. The object of this is to allow the cog-wheel to slip horizontally on the type-wheel shaft as it is drawn forward by the female screw D, in consequence of the rotating motion caused by the taking-up motion of a pawl, G, acting on one side of the cog-wheel, and which is held from going back again by a holdfast-pawl, H, operating on the opposite side of the cog-wheel. The pawl G is secured at its lower end to a lever, I, arranged on a foot-lever rod, J, extending horizontally across the machine, so that as the foot-lever K is operated the pawl also is operated to take up a tooth on the cog-wheel. L L are two springs for holding against the pawls to keep them in contact with the teeth of the wheel, and letter M is an extension-brace secured to the frame by a center-pin, *m*, between the two pawls, and at one end to the take-up pawl G by a pin, *g*, and having at the other end an adjustable tongue-piece, N, so that when it is desired to throw both of the pawls out of gear the tongue-piece N is drawn down, so as to brace against a stud, *n*, in the holdfast-pawl H, and thereby keep the pawls distended till the type-wheels may be turned back again to the number required, and for inking the same.

Letter P is a lever secured to the foot-lever rod J, having at the outer end of it connection with a vertical rod, R, for communicating motion to the stampers S S, through the lever T, secured on a rod, U, to which is also secured the ends of the stamper-frame V. In the back end of the lever T is an adjusting-screw, W, the point of which rests in a seat in the upper end of the vertical rod R, so that by the set of the screw the pressure of the stampers may be regulated. Letter X is a guide-plate, having a hole cut in it of the size of the face of a type, so that as the corner of the page is presented but one number can be marked by the stamper. These guide-plates are made to move or shift on sliding rods Y Y, arranged horizontally over the face of the type-wheels Z Z. These type-wheels are made of wood or metal, as may be required, and secured on the shaft C. On their peripheries are arranged, in corresponding subdivisions with the teeth of the cog-wheel, a series of numbers in numerical order, or otherwise, as may be desired.

In the machine herein described there are forty-two divisions of the circumference of the

cylinders, which wind spirally round the cylinder five times. The number of spiral turns on the cylinder may be increased to any number. These numbers may be cut in the face of the cylinders, or may be type inserted in the face of them, or may be made of stereotype-plates, and adapted so as to form adjustable plates, that variety may be substituted in the process of numbering the pages of books or other articles.

The operation of my invention is that when prepared to page a book the operator throws the pawls out of gear by putting down the tongue-piece N on the extension-brace M against the stud n on the pawl H. He then turns the type-cylinders back to the number required, when he removes the tongue N and lets the pawls fall into their places again, where they are held by the springs back of them. The page of the book is now arranged on the guide-plate X, and by pressing down the foot-lever K, the take-up pawl is elevated, so as to take up a tooth on the cog-wheel, which is held in the meantime, as also the type-cylinders, from turning by the holdfast-pawl at the opposite side. At the same time of this operation the outer end of the lever P elevates the vertical rod R and end of the lever T for bringing down the stampers on the upper side of the paper to take an impression of the required number. Having taken the impres-

sion of the number, the foot-lever is released, and the spring (or gravity, as may be adopted) under the lever P draws back the stampers, and at the same time the take-up pawl moves the cog-wheel round one tooth and the type-cylinder one subdivision for a new number, and spirally forward by means of the screw on the end of the type-cylinder shaft, so that on the type-cylinder making one revolution it has changed to the second column of figures.

The inking process may be done at the time of printing, or may be done by throwing the pawls out of gear and giving the cylinders a turn or two against an ordinary inking-roller.

Having now described my invention, I will proceed to state what I claim and desire to secure by Letters Patent of the United States. What I claim therefore is—

1. The arrangement of type in spiral columns around a cylinder for the purpose of printing successive numbers, the cylinder being moved laterally while it revolves by means of a screw on the end of its shaft, substantially as described.

2. The right to use any number of cylinders on a single machine for the purposes set forth.

EDWARD TOWN.

Witnesses:

CHARLES L. BARRITT,  
EDWARD CHAPMAN.