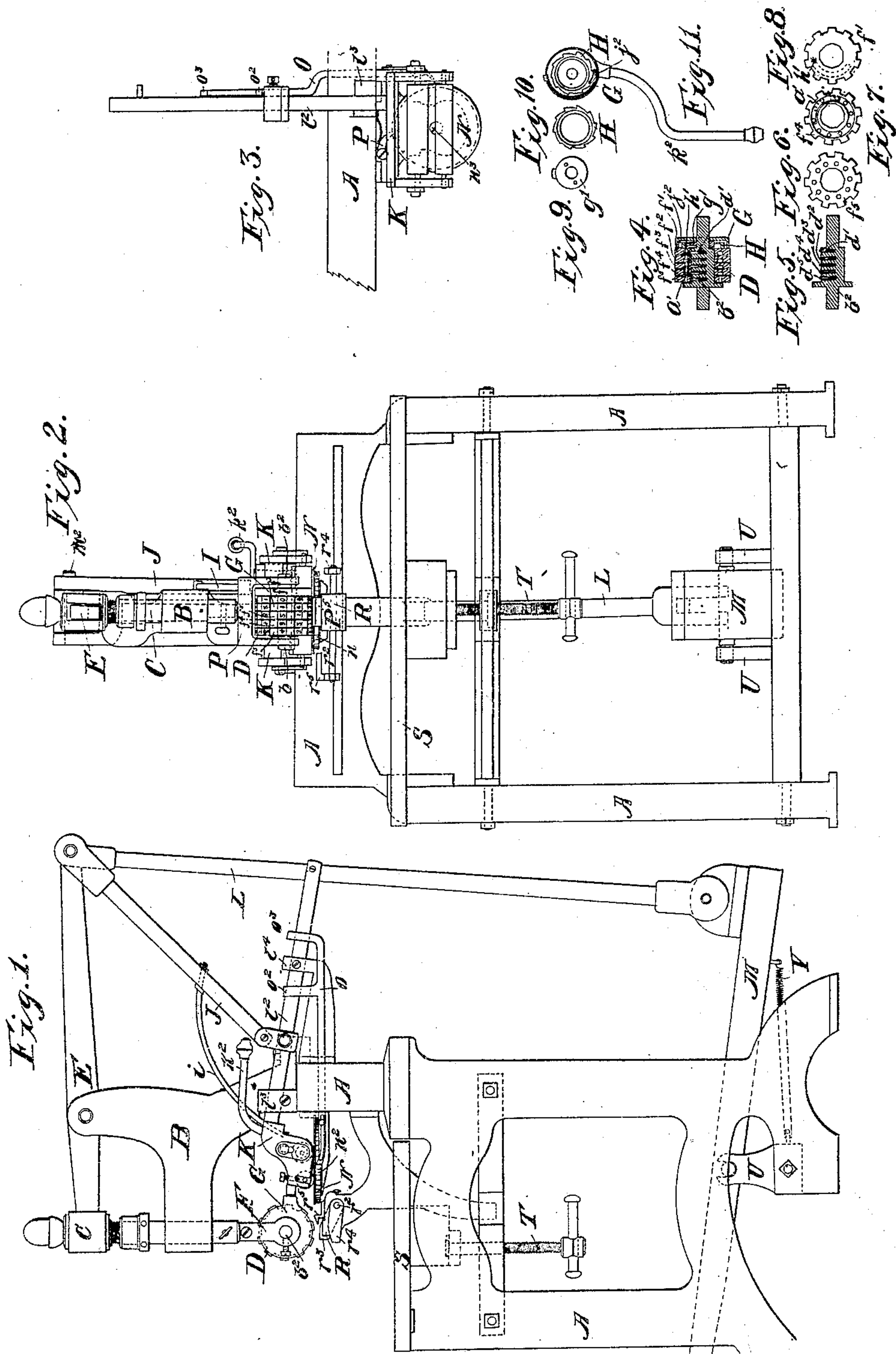


S. E. PARRISH.
PAGING AND NUMBERING MACHINE.

Patented Mar. 23, 1852.

No. 8,830.



UNITED STATES PATENT OFFICE.

STEPHEN E. PARRISH, OF NEW YORK, N. Y., ASSIGNOR TO S. B. CLAYTON & SONS.

MACHINE FOR PAGING BOOKS.

Specification of Letters Patent No. 8,830, dated March 23, 1852.

To all whom it may concern:

Be it known that I, STEPHEN E. PARRISH, of the city, county, and State of New York, have invented a new and useful Improvement in Machinery for Numbering or Lettering Books, Checks, &c.; and I do hereby declare the following to be a full description of the same.

The nature of my invention consists in combining together a series of number or letter plates upon a cylinder or barrel, and cutting on the peripheries of the plates a series of numbers or letters from one to the decimal point, and by means of springs, and pins attached thereto, and holes through the plates corresponding with the number of letters on their peripheries, and a changer plate attached to the end of the cylinder, operated by a cap plate having a ratchet and pawl, contained therein, made to count or number from 1 to 99,999 as the circumstances require. Secondly in combining with the operations of this combination wheel and levers to operate the same, a rotating inking table and inking rollers, so that as the printing roller is drawn back after the impression has been given to the page of the book, &c., the levers force out the inking rollers so as to ink the next series of numbers to be printed, and at the same time in doing this, to cause the inking table to move on its center by means of a pawl acting upon a ratchet wheel attached to the lower side of the inking or distributing table, and then draw back again the inking rollers as the type wheel comes down to give the next impression. Thirdly in combining with the operations of the printing and inking apparatus, a bed to print upon, having adjustable guides for giving uniformity to the letters or numbers printed on the obverse and reverse sides of pages of books, &c.; and also an adjustable table to accommodate the thickness of the book and facilitate thereby the convenience of working the machines. But to describe my machine more particularly I will refer to the accompanying drawings forming a part of this schedule the same letters referring to the same parts wherever they occur.

Figure 1 is a side elevation of the machine. Fig. 2 is a front elevation of the same. Fig. 3 is a plan view of the inking rollers and inking table. Fig. 4 is a cut section view of the type wheel. Fig. 5 is a cut section view of the cylinder, on which

the type plates are arranged, and the pins for holding the plates in position by the indentations in the inner circumference of the type plates. Fig. 6 is a view of the last or 5th number plate. Fig. 7 is a view of the 4th, 3d, and 2d number plates, showing a channel way in one side of them, and spring having a pin in the end of it for taking into one of the holes of the higher number plate as it comes on a line with the pin in the 1st plate. Fig. 8 is a view of the 1st number plate, showing the end of the changing pin projecting through its face, and attached at the back to a spring confined in a channel way the same as in the 2nd 3rd and 4th number plates. Fig. 9 is a view of the changer having two pin or screw holes in it for attaching it to the end of the cylinder after the number plates have been put on. Fig. 10 is a view of the ratchet wheel, having an equal number of subdivisions on it as are on the type wheels. Fig. 11 is the cap, having the ratchet wheel in it, and pawl for rotating it as the lever attached to the cap is elevated by the motion of the machinery.

Letter A, is the frame of the machinery. B, is the standard for supporting the rod C, to which the type wheel D, is attached, and the lever E, for operating the same. This rod C, has an eye in its upper end, for the end of the lever E, to operate in for raising or depressing it. In the lower end of it is a supporting piece F, for the type wheel D. This type wheel is made by combining together a series of five plates f^1, f^2, f^3, f^4, f^5 , each having on its periphery ten subdivisions, corresponding to the figure 1 to the decimal point 0. In each of these plates (except f^1 ,) are also ten holes corresponding to the number of divisions on the periphery, and also ten subdivisions made on the inner circumference of the plates. The plate f^5 , is made plain, each of the others on the inner face has a channel way cut in it, to contain a spring (a^1 ,) having a pin in one end, of sufficient length that when pressed by the pin in the preceding plate through one of the holes, it will enter the hole opposite it in the succeeding plate, and cause it to move forward with it one number. These plates are arranged in the order mentioned above, on a cylinder or barrel b^2 , having journals for running in the arms of the supporting piece F, as a center of action for the type wheels. In this cylinder or barrel

are drilled five holes, into which five pins d^1 , d^2 , d^3 , d^4 and d^5 are inserted, their lower ends resting on spiral springs. These pins, are used for the purpose of holding the type plates in position by their ends being forced against the angles of the faces of the inner circumference of the plates, by means of the spiral springs. Against the end of this cylinder or barrel a changer plate g^1 , is secured by screws or pins. This plate has a small projection on its periphery, against which the end of the spring h^1 , is made to come in contact once in each revolution of the plate f^1 , which pressing the spring h^1 , in, causes the inner end of it to enter the hole in the plate f^2 , opposite it, and thereby cause it to move forward one number at each revolution of plate f^1 , in consequence of the alternating motion of the cap G, and pawl j^2 , attached thereto acting on the ratchet wheel H, secured to the face of plate f^1 , of the type wheel by means of pins or other contrivance to hold them firmly together. This cap plate G, has a bent lever k^2 , attached to it, which resting against an arm I, having its back end secured to the inking lever J, causes it to have an alternating motion as the levers are operated to take an impression, and in doing so to keep up a uniform constant changing of the numbers of the type wheel as the machine is worked.

Letter K, is the inking roller frame having two inking rollers of the usual make in it. To the back of the frame is a rod l^2 , which is supported by boxes l^3 and l^4 . Connecting with this rod, is the lower end of the inking roller lever J, the upper end of which being attached to the back end of the lever E, by the eye bolt (m^2), holding together the ends of the levers E, and J, and upper end of the connecting rod L, the lower end of which is connected to the back end of the treadle M.

Letter N is the rotating distributing plate for the ink rollers to run over. This plate has a ratchet wheel (n^2) attached to its under side, and by means of a center pin (n^3) passing through a shoulder piece from the frame of the machine is held securely under the inking rollers.

Letter O, is a slide. This slide has a pawl in the front end of it, and a spring, for the purpose of acting upon the teeth of the ratchet wheel (n^2) as the slide is moved out and in by the projections on the back end of it o^2 , o^3 , coming in contact with projections on the rod (l^2).

Letter P, is a pawl, having a pressure spring against it, and situated at the back of the inking plate, for the purpose of holding the plate from drawing back along with the slide o, as it is carried back.

Letter R, is the bed upon which the impression is taken. This bed is secured to the frame in any suitable manner and form

for such purposes. To this bed plate is secured a rod (r^2) having on each end of it guide pieces (r^3) and (r^4) and also on the face of the bed another guide plate (r^5) for the purpose of holding the corners of the pages in uniform and regular order that a finished appearance in the numbering or lettering may be observed.

Letter S, is the table upon which the book or other article to be numbered is placed. This table has an adjusting screw T, on the under side of it for the purpose of elevating it as circumstances may require. Should the table not be large enough for work of extraordinary size leaves may be added to it in the ordinary manner of making tables, &c.

Letter U, is the support for the treadle, and V, is a spiral spring attached to it and the back end of the treadle for reacting it.

The operation of my machine is that when the table and guides of the bed have been arranged and numbers on the type wheel, the book is placed on the table and the operator on pressing down the front end of the treadle, causes the type wheel to give an impression of the required number on the margin of the page. When this is done the treadle is released when the type wheel is drawn back, and in doing this the bent lever on the cap plate is raised by the arm underneath it, to cause the ratchet in the cap plate to move the plate to which it is attached one number ahead. At the same time this is done the inking rollers are forced against the face of the type wheel to ink it, and the inker plate is caused to move forward so as to distribute the ink more perfectly for the action of the ink rollers as they roll over its surface on being drawn back for the impression to be taken again.

Having now described my invention and its operations I will proceed to state what I claim and desire to secure by Letters Patent.

What I claim therefore is—

1. The use of the type plates having channel ways and springs in their faces, and holes in them, corresponding to the ten subdivisions of their peripheries, and their inner circumferences divided into ten equal sizes, in combination with a barrel having stop pins in its circumference for the type plates, and a changing plate attached thereto, and ratchet wheel, cap plate, and pawl and bent lever, for the purpose of operating a series of number plates, the said combination of parts being entirely distinct from any known mode of producing the same result, (that is counting) which I lay no exclusive claim to, the principle being well known, and I therefore limit my claim to combination of parts substantially as set forth.

2. I claim the use of the rod C, lever E,

inking roller lever J, and arm I, in combination with the type wheel substantially for the purposes as set forth.

5 3. I claim the use of the inking roller frame and rod attached thereto, and rotating ink plate, in combination with the lever J, slide o, and type wheel and levers operating the same substantially for the purposes as set forth.

4. I claim the bed R, with guides attached thereto, in combination with the table and type wheel substantially for the purposes as set forth.

S. E. PARRISH.

Witnesses:

CHARLES L. BARRETT,
WM. H. RIBLET.