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E. J. BARKER.

REVOLVING CARRIER FOR THE NUMBERING HEADS FOR PRINTING MACHINES.

APPLICATION FILED MAR. 27, 1902

Fig. 3.

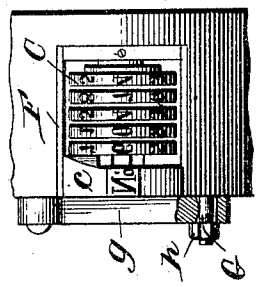


Fig. 4.

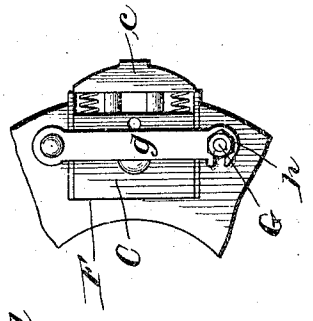


Fig. 2.

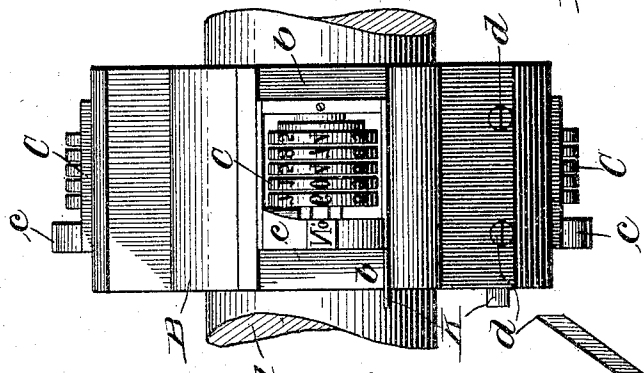


Fig. 5.

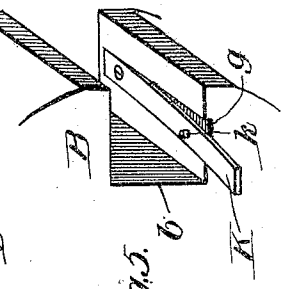
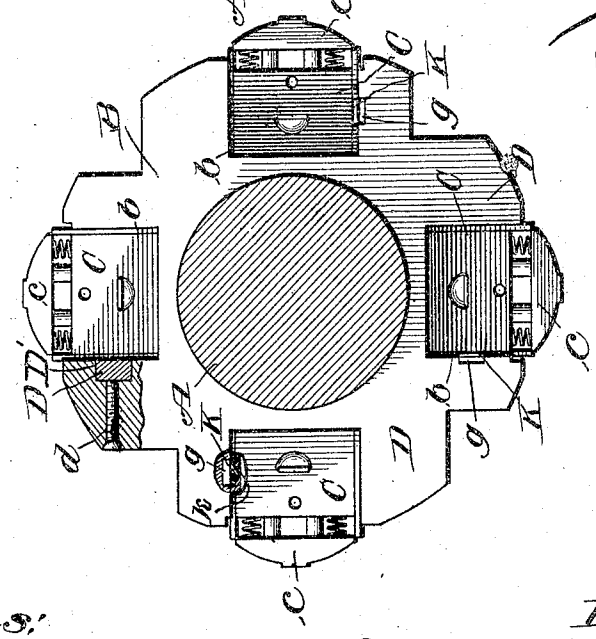


Fig. 1.



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UNITED STATES PATENT OFFICE.

ENGLAND J. BARKER, OF MORGAN PARK, ILLINOIS.

REVOLVING CARRIER FOR THE NUMBERING-HEADS FOR PRINTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 778,837, dated January 3, 1905.

Application filed March 27, 1902. Serial No. 100,241.

To all whom it may concern:

Be it known that I, ENGLAND J. BARKER, a citizen of the United States, and a resident of Morgan Park, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Revolving Carriers for the Numbering-Heads for Printing-Machines, of which the following is a full, clear, and exact description.

Heretofore the means for carrying numbering-heads in printing-presses have been adapted to carry but one numbering-head and operating in a reciprocal plane to and from the work to make but one impression therewith at regular intervals. The consequence was that the printed matter passed through the machine had to be of a stated length in order to successfully use the numbering mechanism. This was particularly so when the numbering-head was used in conjunction with web-perfecting printing-presses having revolving impression-cylinders. Certain classes of work now done on web-perfecting presses—such as circulars, schedules, orders, bills, &c., and the printing of manifolding matter for autographic manifolding—vary greatly in length, according to the requirements of each case, and consequently could not be numbered at the same time they are printed, but had to be subsequently run through a numbering-machine, because of the fact that the numbering-head could not be made to register with each and every copy as they were being printed. This inability to arrange the numbering mechanism so as to number each printed copy of the work at the same time it is printed is a great inconvenience and expense.

The object of my invention is to overcome this objection by providing a simply-constructed revolving multiple-numbering-head carrier and make it possible by the use of a series of numbering-heads secured therein to make either one or several impressions of the numbering-heads during each revolution of said carrier, and thus adapt it to number each manifolding copy or copy of other matter which is of a length corresponding to the periphery of said carrier or of a length which will equally divide the length of said periphery. This I accomplish by the means hereinafter fully described and as particularly pointed out in the claims.

In the drawings, Figure 1 is a side view of my invention. Fig. 2 is an edge view of the same. Fig. 3 is an edge view of a portion of a carrier, showing modified means for securing the numbering-head in place. Fig. 4 is a side view of the modification shown in Fig. 3. Fig. 5 is a perspective view of a portion of one of said carriers with the numbering-head removed and exposing the full length of the clamping-spring to view.

Referring to the drawings, A represents a shaft adapted to rotate continuously in one direction.

B represents a cross-shaped carrier having transverse recesses *b b b b* in the peripheral face of each of the four arms thereof in which the numbering-heads C are seated and secured. As to the mechanical construction of the numbering-heads suffice it to say that each comprises a number of coöperating disks bearing numeral-type on their peripheries, which are arranged side by side concentric to the same axial plane and are actuated to consecutively number by depressing a block *c*, bearing the abbreviation "No." on its printing-surface, every time it comes in contact with the impression-roller. These disks and block *c* are contained in a metallic box of rectangular proportions, and this box is held in recess *b* by means of a longitudinal clamping-spring K, seated in a groove *g* in the side wall of the recess. This clamping-spring K consists of a leaf-spring, which is fastened at one end by a rivet or other means at one end of groove *g*, and the remaining portion of it extends in an oblique direction out of said groove and into said recess. Its length is such that its end extends out of the end of the recess opposite that near which it is secured to the carrier a sufficient distance to permit it to be grasped by the fingers. At a suitable point within the confines of said recess spring K is provided with a laterally-projecting pin *k*, which is adapted when the numbering-head C is inserted in proper position in the recess *b* to enter a hole made therein and prevent said head from longitudinal displacement. In order to place the head

C in the recesses, the spring K is moved back into groove *g* until the head is in proper position, whereupon it is released and enters a suitable longitudinal groove in the adjacent side wall of said head, and at the same time pin *k* enters the hole therein, and thus locks the head from radial or longitudinal displacement.

In the uppermost arm of the carrier (shown in Fig. 1 of the drawings) I show modified means for locking the numbering-heads in place. These consist of a longitudinal clamping-bar D, which is seated in a suitable groove D′ in the side wall of the recess, and gage-screws *d d*, which are tapped through said wall and impinge against bar D and cause the latter to clamp the numbering-head between it and the opposite wall of recess *b*.

In Figs. 3 and 4 I show yet another modified means for clamping the numbering-heads in the carrier. The recess *b*, hereinbefore referred to, extends from side to side of the carrier; but the use of the modified means shown in these two figures require a recess F, which is open to but one side of the carrier and extends laterally across the peripheral face of the same a distance corresponding to the length of the numbering-head and has an end wall against which when said head is seated in the recess the end of the same will impinge. When thus seated, an outwardly-swinging bar *g* is swung across the open end of the recess, and its end is secured by a stud G passing through a laterally-slotted opening in its end and by a nut *h*. By tightening up nut *h* the bar *g* presses against and keeps the numbering-head in the recess.

Now in the operation of my improvements if each copy of the schedule, memorandum, order-blank, or other matter which has been printed upon the continuous web of paper passing through the machine is of a length corresponding to one-quarter of the periphery of the numbering-head all of said heads are retained in the carrier; but if the length of such printed matter is equal to one-half the periphery described by one of said heads two oppositely-located numbering-heads are removed from the carrier and the other two oppositely-located heads are retained, while if the copy of matter printed is of a length corresponding to that of said periphery all but one of said numbering-heads are removed. Thus it will be observed that the range of usefulness of a machine employing my improvements is greatly extended.

I do not wish to be confined to the use of a revolving carrier containing any given number of numbering-heads, as it is obvious this could be varied without departing from the spirit of my invention, and neither do I desire to be considered as confining the application of such a carrier to numbering-heads, as it evidently can be used for holding the stock of punches used to perforate the paper in printing-machines. All such uses I desire to be considered as contemplating within the scope of my invention.

What I claim as new is—

1. A revolving carrier having a transverse recess in the periphery thereof which is provided with a longitudinal groove in one of its side walls, a longitudinally-disposed spring-clamp secured at one end in one end of said groove, and is provided with a laterally-projecting pin, in combination with a numbering-head adapted to be seated and clamped in said recess and has a hole therein for the reception of said pin.

2. A revolving carrier having a transverse recess in the periphery thereof which is provided with a longitudinal groove in one of its side walls, a longitudinally-disposed spring-clamp secured at one end in one end of said groove, and is provided with a laterally-projecting pin, having a longitudinal groove therein opposed to the groove in said recess, and which is adapted to be seated and clamped in said recess and has a hole in said groove for the reception of said pin.

ENGLAND J. BARKER.

Witnesses:
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