W. B. NORTHRUP.

PAPER HOLDING ATTACHMENT FOR TYPE WRITING MACHINES.

No. 404,103.  Patented May 28, 1889.
To all whom it may concern:

Be it known that I, William B. Northrop, of Charleston, in the county of Charleston and State of South Carolina, have invented a new and improved paper-holding attachment for type-writing machines, of which the following is a full, clear, and exact description.

My invention relates to a paper-holding attachment for type-writing machines, particularly of the "Remington" class and it has for its object to provide a device of this character allowing its adjustment to any machine and permitting use of any width and length of paper and holding the print clearly in view of the operator of the type-writer, and providing for automatically feeding the written paper away from the impression-roller of the type-writer, the whole making a simple and inexpensive contrivance which facilitates the correct and effective operation of a type-writing machine.

The invention consists in certain novel features of construction and combinations of parts of the paper-holding attachment, and in its combination with a type-writing machine, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a front view of my improved paper-holder and a portion of the carriage of a type-writing machine to which it is attached, parts being shown broken away and in section. Fig. 2 is a rear view of the paper-holding attachment partly broken away and in section. Fig. 3 is a vertical transverse section of the paper-holder and adjacent parts of the type-writer carriage. Fig. 4 is a detail plan view showing the base-plate partly broken away and with the posts in transverse section. Fig. 5 is a top perspective view of the base-plate, and Fig. 6 a top perspective view of a portion of the cap-plate.

In its preferred form my improved paper-holding attachment consists of a base-plate, A, having one or more adjustable pins or attaching devices, B, by which to hold it to the type-writer carriage, posts C, D, held to the plate A, and in which are journaled a main paper-holding roller, E, and a pair of auxiliary paper retaining and guide rollers, F, G, and a cap-plate, H, which is held to or at the tops of the end posts of the device.

The arrangement of the device by which the attachment is held to the paper-carrying I of a type-writing machine is important—that is to say, I make said devices adjustable on and lengthwise of the base-plate A of the attachment. Usually the type-writer carriage is provided with a couple of vertically-bored lugs, J, forming sockets into which pass pins at the lower edge of the ordinary inclined paper-guide of the type-writer, which is not shown in the drawings. I therefore preferably make the paper-attachment fasteners or holders in the form of pins B, which are adapted to these sockets J, and are made adjustable along the base-plate A, preferably by providing the pins with dovetailed heads, k, which enter and may slip in a dovetailed groove, a, in the under side of the base-plate.

It is manifest, however, that the fasteners may have other form and may be made adjustable along the base-plate A in other ways than by fitting a groove in the plate.

The end post, C, is preferably fixed to one end of the base-plate A; but the other post, D, is made adjustable in the base-plate toward and from the post C, and preferably by fitting said post D into a lengthwise slot, a', made in the top of the base-plate; and to hold this post securely at any position to which it may be adjusted I prefer to use a bolt end or screw, K, which is fixed to the lower end of the post and extends through a lengthwise slot, a'', made in the rear side or wall of the base-plate, and is provided with a thumb-nut, k, which may be tightened against the base-plate. Other approved means of holding the foot of the adjustable post D to the base-plate may, however, be adopted.

To give a more firm support to the posts C and D and to the rollers E, F, G, journaled in them, the cap-plate II is employed, said plate being fixed to the upper end of the relatively stationary post C, and having in its under side a lengthwise slot, h, of dovetailed cross-sectional form, and in which the dovetailed upper end, d, of the post D is fitted, so as to move in the slot as the foot of the post is adjusted in the slot a' of the base-plate.

It is obvious that the rollers E, F, G may have any length to suit the width of paper, L, which will preferably be made in one continuous strip wound upon the roller E, and will be passed therethrough to and beneath the impression-roller M on the type-writer car-
riage, and from this roller the paper will be passed upward and rearward to and between the attachment rollers F G, as most clearly shown in Fig. 3 of the drawings. I prefer to use a roll of paper perforated transversely at regular intervals to partially cut the paper into lengths suitable for any style of correspondence, (see the perforations l in Fig. 2 of the drawings,) and whereby as each letter is written, or at any convenient later time, the written letters may be torn off easily for transmission, as required, or by turning the roller E backward the upper rollers, F G, will guide the type-written paper while it is being wound again on the roller E, which, should it be desired to do so. I purpose using some device which will indicate to the operator of the type-writer the location of the transverse perforations in the paper web or strip, and thus prevent mistakes by a too near approach to or a writing on the perforations, and save time and assure neatly-written correspondence.

The rollers E F are preferably connected by belts N N, which will be crossed when the paper unwinds from the roller E from the top, as shown in Fig. 3 of the drawings and whereby as the paper is fed along beneath the impression-roller M of the type-writer it will be correspondingly fed rearward from between the upper rollers, F G, which thus will hold the paper perfectly straight and smooth, and with the writing thereon in full view of the operator of the type-writer and will prevent dropping of the paper again into the type-writer feed-rollers, which, if allowed, would entangle the paper and cause it to be again written upon and spoiled.

The cap plate or bar H of the attachment will preferably be provided at its front edge with a scale, O, indicating the range of the printed characters transversely across the paper, and as will be understood from Fig. 1 of the drawings.

It is not utterly new to provide paper-holding or roll attachments to type-writing machines; but I am not aware of a device of this character which is provided with one or more pins or other fastening devices independently adjustable lengthwise on the attachment without interfering with its width to allow fitting of it to various type-writing machines, and provided with one or more adjustable posts in which the paper-roll is journaled, and allowing paper from one-half inch to fourteen inches wide to be used in the type-writer, as in any paper-holding attachment above described, it being manifest that the movable post D may readily be shifted toward or from the fixed post C to allow paper holding and guide rollers of any length suitable for varying widths of paper to be used in the device, while the attachment may be fitted to any machine, which is not possible with paper-holding attachments having their paper-roller bearings in fixed relation to the attaching pins or devices of the holder.

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

1. The combination, with the base-piece and the upwardly-projecting posts or arms having bearings, of fasteners depending from the base-piece and having a sliding connection therewith, whereby the fasteners may be adjusted toward and from each other without interfering with the relative position of the posts or arms, substantially as set forth.

2. A paper-holding attachment for typewriters, consisting, essentially, in a base-piece, vertical posts provided with bearings, one post being adjustable along the base-piece, and pins adjustable bodily along the lower side of the base-piece, whereby the space between the posts may be varied for rolls of different lengths without changing the relative positions of the pins, and said pins be adjusted for different type-writers without changing the relative positions of said posts, substantially as set forth.

3. In a paper-holding attachment for typewriting machines, the combination, with a base-plate having a dovetailed slot and provided with bearings for a paper-holding roller, of fastenings holding the attachment to a type-writer carriage and having dovetail heads fitting the base-plate slot, substantially as herein set forth.

4. In a paper-holding attachment for typewriting machines, the combination, with a base-plate having a dovetail slot, a, in its under side and provided with posts or bearings for a paper-holding roller, of fastening-pins B, having heads b, fitting the slot a and adjustable therein, substantially as herein set forth.

5. A paper-holding attachment consisting in the top piece having a longitudinal dovetail slot in its lower side, the base-piece having a longitudinal slot in its upper side, a longitudinal dovetail slot in its lower side, and a transverse longitudinal slot in one wall of the upper slot, the fixed end post, the parallel opposite sliding end post having its ends corresponding with and mounted in the slots in the adjacent faces of the top and base pieces, an adjusting-screw extending through the transverse slot into the lower end of the adjustable end post, and the fastening-pins having dovetail heads entering the dovetail slot in the base-piece, the said posts having roller bearings, substantially as set forth.

6. In a paper-holding attachment for typewriting machines, the combination, with a base-plate slotted at a' a" and a fixed post, C, on the base-plate, of an adjustable post, D, fitted in the slot a', and a screw, K, fitted in the post D, through the slot a", and provided with a nut, substantially as herein set forth.

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Witnesses:
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