July 26, 1927. 1,637,022

V. GAGE

PAPER GUIDE FOR TYPEWRITERS

Filed July 24, 1926

Fig. 1.

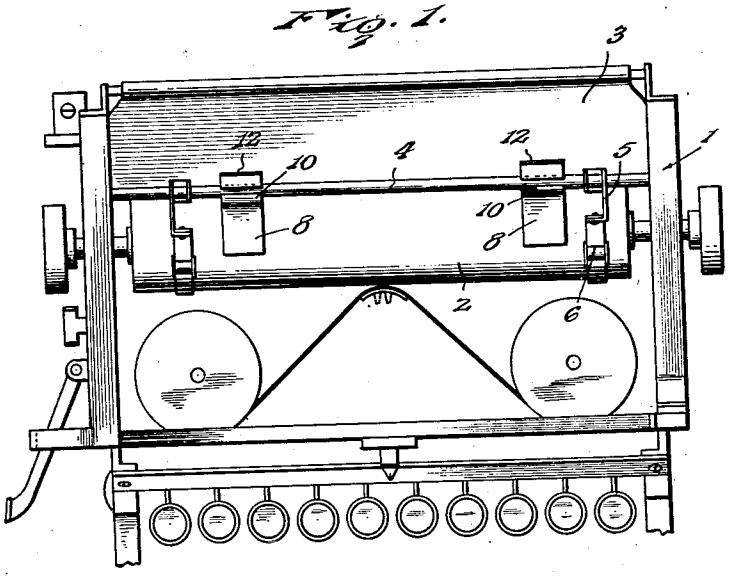


Fig. 2.

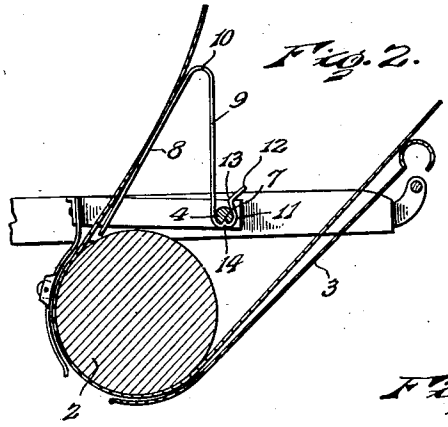


Fig. 4.

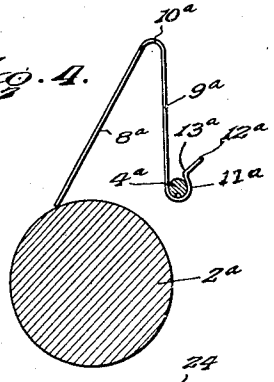


Fig. 5.

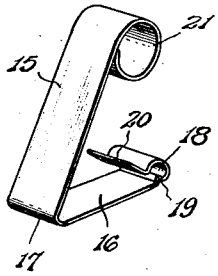


Fig. 6.

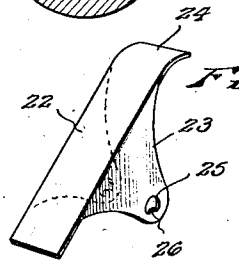
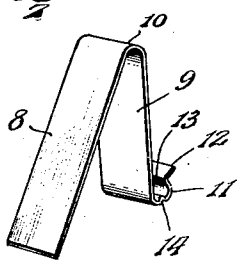


Fig. 3.



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UNITED STATES PATENT OFFICE.

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PAPER GUIDE FOR TYPEWRITERS.

Application filed July 24, 1926. Serial No. 124,708.

This invention relates to improvements in paper guides for typewriters.

It is a well known fact that in the use of typewriters of the standard construction, in making a number of carbon copies, the work is seriously interfered with and material, labor, and time are lost because one or more of the blank sheets and the interposed carbon sheets drop downwardly at their upper ends above the platen and are wound about the platen between the same and the following portions of the assemblage of sheets of blank and carbon paper, with the result that the matter must be rewritten. Various devices have been devised for preventing this dropping down of the blank and carbon sheets but generally they have been cumbersome in construction and function only with a limited degree of efficiency. Therefore, the present invention has as its object to provide a paper guide of a simple construction which may be readily applied to the usual rod which extends above and in rear of the platen of a typewriter and supports the bracket members carrying the presser rollers and thus overcome the disadvantages referred to above.

Another object of the invention is to provide a paper support which, when applied to the supporting rod for the presser roller brackets, may be adjusted longitudinally of said rod to properly support paper of varying width without in any way interfering with adjustment of the said brackets for the presser rollers.

Another object of the invention is to so construct the guiding means that a considerable length of the upper portions of typewritten sheets will be supported in a substantially upright position so that the operator of the typewriter may readily observe, for example, several previously written sentences and thus avoid duplication of matter already typewritten, which is liable to occur when copying is being done and only two or three previously written lines are visible.

Another object of the invention is to so construct the paper guide that it may be applied to or removed from its supporting rod without the use of tools and be firmly held in place without any extraneous fastening means being required.

In the accompanying drawings:

Figure 1 is a plan view illustrating so much of a typewriter of well known make as is necessary to an understanding of the invention, two of the guiding devices embodying the invention being illustrated as applied to the rod which supports the brackets for the presser rolls, and the devices being shown in the position which they will occupy in guiding the sheets of paper fed about the platen.

Figure 2 is a detail vertical front to rear sectional view through the platen and the parts adjacent thereto, one of the devices embodying the invention being shown in elevation in position guiding the paper fed about the platen.

Figure 3 is a perspective view of the embodiment of the invention shown in Figure 2.

Figure 4 is a view similar to Figure 2, illustrating a slight modification of the invention.

Figure 5 is a perspective view illustrating a further modification.

Figure 6 is a similar view illustrating a stll further modification.

In the drawings, the carriage of the typewriter is indicated in general by the numeral 1 and the numeral 2 indicates the usual platen which is mounted upon the carriage and about which the sheets of typewriting and carbon paper are fed in the usual manner, the usual paper shelf 3 being arranged in rear of the platen with its lower portion extending beneath the same to guide the sheets of paper which are to be fed about the platen. The numeral 4 indicates the usual rod which is mounted in the carriage in rear of and slightly above the platen 2 and which supports the usual brackets 5 which carry the presser rollers 6 which serve to hold the paper to the platen. As is customary, the rod 4 is formed in its under side with a longitudinally extending groove indicated by the numeral 7 which groove accommodates projections, not shown, which are ordinarily provided at the inner ends of the brackets 5 so that the brackets, when lowered to bring the presser rollers 6 into engagement with the paper which is passed about the platen, will be maintained in such position, and the presence of this groove is taken advantage of in a manner which will presently be explained.

In the preferred embodiment of the invention, illustrated in Figures 1, 2 and 3 of the drawings, the paper guiding means comprises a pair of counterpart guiding devices

which are formed from strip sheet metal and each device comprises relatively angularly disposed portions 8 and 9 connected by a rounded or gradually curved bend 10, the portion 9, in the operative position of the device, being disposed substantially vertically and the portion 8 being inclined downwardly and forwardly from the bend 10 and with respect to the said portion 9, and with its lower end positioned close to but in slightly spaced relation with respect to the surface of the platen at the upper side thereof and slightly in advance of the top longitudinal center line of the said platen. At the lower end of the portion 9, the strip from which the device is formed is bent or rolled rearwardly upon itself to provide an open sleeve-like clamping portion which is indicated by the numeral 11 and which terminates in a rearwardly and upwardly extending lip 12 and a rounded connecting bend 13, the upper side of the clamping member being open and the bend 13 being spaced from the adjacent portion of the member 9 of the device a distance less than the transverse interior diameter of the said clamping member. The clamping member 11 is so proportioned that it will be adapted to fit snugly about the rod 4 and in assembling the device with the said rod, the device is disposed with the open side of its clamping member 11 presented to the under side of the rod and the clamping member is then shoved upwardly so as to snap over the rod. In this embodiment of the invention, the clamping member 11 is formed at its lower side with an indentation extending transversely thereof to provide a shallow upstanding rib 14 which engages in the groove 7 and, in this manner, means is provided for maintaining the device as a whole in proper upright position to guide the sheets of paper which are fed over the platen and prevent any of the sheets at their upper portions dropping to position where they might be rewound about the platen. At this point it will be evident that the devices when fitted to the rod 4, may be symmetrically adjusted along the rod so as to be properly spaced with relation to the presser rollers 6 and with relation to each other and in accordance with the width of the sheets of paper which are fed about the platen. It will likewise be evident that this adjustment may be effected without in any way disturbing or interfering with the adjustment of the presser rollers and that due to the readiness of removal and replacement of the devices they may be arranged inwardly or outwardly of the respective presser roller brackets.

In the embodiment of the invention above described, advantage is taken of the presence of the groove 7 in the rod 4 to provide the clamp 11 of each of the devices with the rib 14 to enter said groove and maintain the device in such position that the lower end of its portion 8 will be at all times spaced from the surface of the platen 2. However, as illustrated in Figure 4 of the drawings, this rib may be omitted if desired, for the sake of economy in manufacture, or if the device is to be applied to a typewriter in which the rod corresponding to the rod 4 is not provided with a groove such as the groove 7. In this event, the clamp 11^a will be preferably somewhat more constricted than the clamp 11 of the previously described form so as to firmly frictionally grip the rod, and this will tend to prevent engagement of the lower end of the member 8^a of the device with the platen, although if there is such engagement, it is immaterial as it will be merely a light contact such as will not tend to mar the surface of the platen. Parts of the device shown in Figure 4 corresponding to those shown in Figures 1, 2 and 3 are indicated by like reference numerals with the addition of the suffix "a." In both of the forms described, it will be observed that the devices may be readily and quickly applied to and removed from the rod 4 without the employment of any tools and without the employment of any extraneous fastening means for holding the devices in position.

In the embodiment of the invention shown in Figure 5 of the drawings, the device is likewise formed from strip sheet metal and comprises a member 15 which corresponds to the member 8 of the first described embodiment of the invention and a member 16 which corresponds to the member 9, except that in this embodiment the members are connected at their lower and forward ends respectively by a rounded bend 17, the member 16 extending, in the applied position of the device, substantially horizontally from the rod 4 in a forward direction above the platen 2, and the member 15 extending in an upwardly and rearwardly inclined direction at substantially the same angle as that assumed by the member 8 in its operative position shown in Figure 2. In this embodiment, the member 16 is provided at its rear end with a clamp 18 corresponding in every respect to the clamp 11 except that its open side is presented forwardly instead of upwardly as in the instance of the said clamp 11. This clamp is provided at its lower side with a rib 19 corresponding to the rib 14 and at its open side is provided with a lip 20 corresponding to the lip 12. In this embodiment the upper portion of the member 15 is rolled rearwardly with its extremity in engagement with its rear side so as to provide a substantially cylindrical head 21 which serves the same purpose as the bend 10 in the first described embodiment.

In the embodiments of the invention previously described, the devices are intended

as attachments to an ordinary typewriter, being supplied to the users of typewriters and applied by them in the manner explained, but it may be desirable to originally embody the invention in typewriters at the time of manufacture and in such event, a device of the construction shown in Figure 6 will be preferably employed. This device is formed from a blank of sheet metal and comprises a substantially flat body portion 22 and side wings 23 which extend in parallel planes from the rear side of the member 22 at the opposite lateral edges thereof. The body member 22 is provided at its upper end with a rearward bend 24 which serves the same purpose as the bend 10 of the first described form and the head 21 of the form shown in Figure 5 of the drawings. The wings 23, at their lower ends, are formed with openings 25 and at the lower side of the wall of each opening there is provided a lug 26 which projects upwardly and is engaged in the groove 7 of the rod 4, the rod being fitted through the openings 25, which are alined, before the ends of the rod are mounted in the sides of the carriage 1. The lugs 26 are so positioned that when the devices are applied to the rod and the rod has been mounted in position, the body portions 22 will have their lower ends located close to the upper side of the platen in substantially the same position as the lower end of the portion 8 of the device shown in Figure 2, and the body portion 22 will be inclined upwardly and rearwardly at substantially the same angle of inclination as the portion 8 of the device shown in Figure 2.

It will be observed by reference to Figure 2 of the drawings, that the bend between the vertically extending member and the upwardly and rearwardly inclined paper guiding member of the device is located in advance of and somewhat above the plane of the upper edge of the paper shelf so that when the sheets of paper and the interleaved carbon sheets pass over the said bend, they will be guided rearwardly but clear of the upper edge of the paper shelf so that there will be no likelihood whatsoever of the upper portions of the sheets entering the space between the upwardly extending member of the device and the said paper shelf.

Having thus described the invention, what I claim is:

1. A typewriter paper guide for the purpose described comprising a member having an open-sided clamp for engagement with the presser roller rod of a typewriter, the clamp being provided with a rib for engagement in the usual groove in the lower side of such rod, and an inclined guiding member supported by the first mentioned member to extend over the space between the typewriter platen and the said rod.

2. A typewriter paper guide to be mounted upon the presser carrying rod of a typewriter, said guide comprising an elongated strip bent intermediate its length to provide a paper engaging arm and a supporting arm diverging therefrom, said supporting arm having its free end portion bent in a reverse direction to form an open clamp to grip about the rod and mount the guide thereon with the paper engaging arm extending upwardly from the platen of a typewriter at a rearward incline.

3. A typewriter paper guide to be mounted upon the presser carrying rod of a typewriter, said guide comprising a strip of resilient material bent to provide a paper engaging portion and a mounting portion extending therefrom in diverging relation thereto and having its free end portion formed with an open expansible seat to snugly receive the presser carrying rod whereby said guide may be mounted upon the said rod in gripping engagement therewith and adjusted longitudinally thereon but held against tilting about the rod out of an operative position with the paper engaging portion extending upwardly from the platen of a typewriter at a rearward incline.

In testimony whereof I affix my signature.

VINCENT GAGE. [L. S.]