

H. E. PAYNE & S. G. WRAY.
RIBBON GUIDE AND POINTER.
APPLICATION FILED FEB. 19, 1910.

1,011,366.

Patented Dec. 12, 1911.

2 SHEETS—SHEET 1.

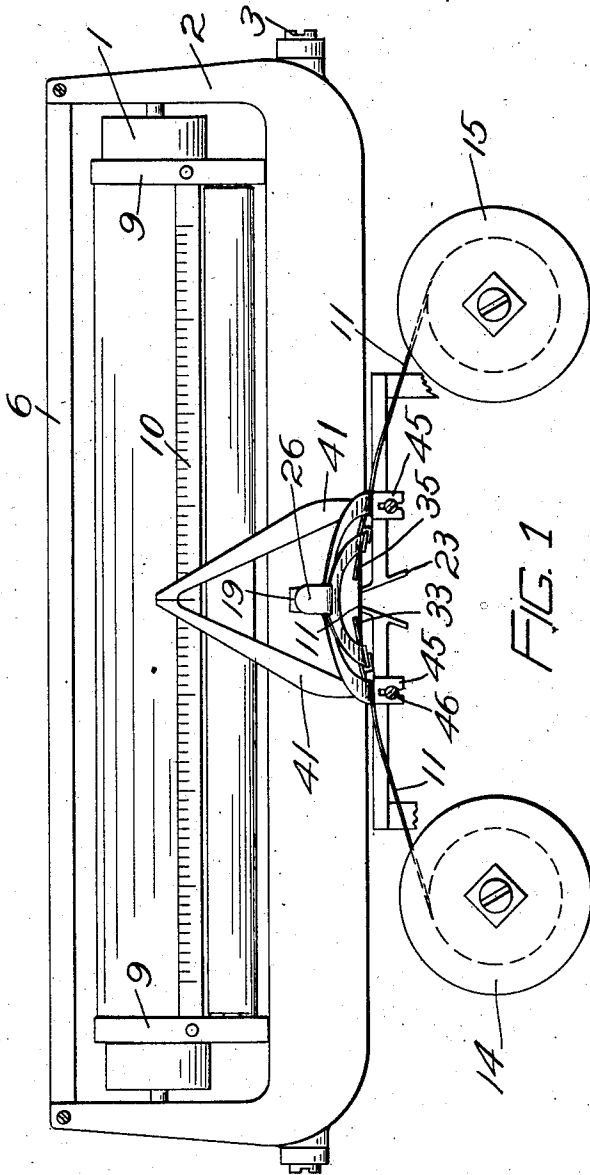


FIG. 1

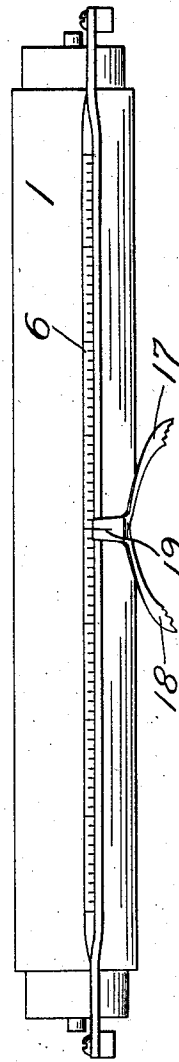


FIG. 2

WITNESSES

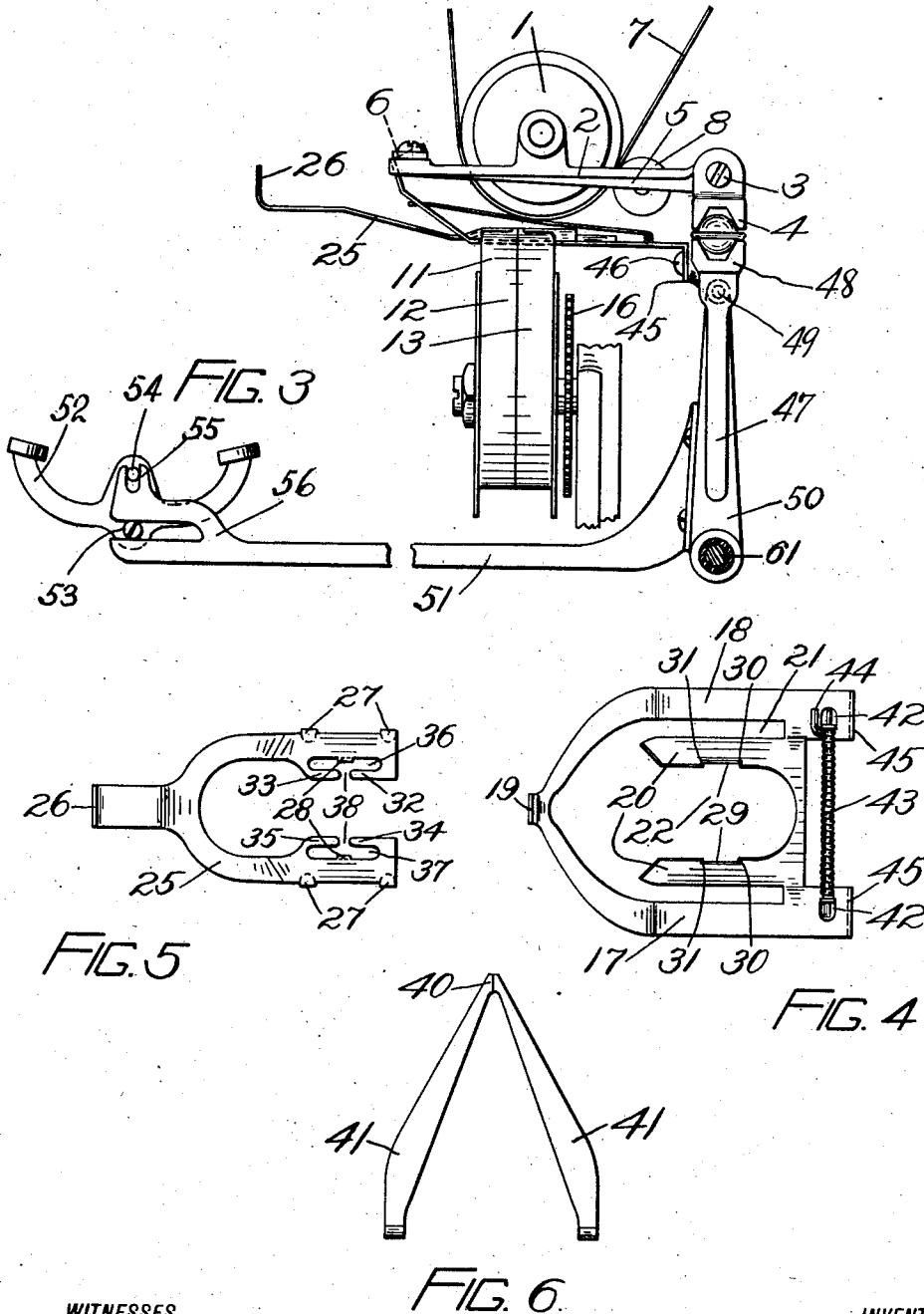
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UNITED STATES PATENT OFFICE.

HALBERT E. PAYNE, OF NEW YORK, N. Y., AND SILAS G. WRAY, OF GRAND JUNCTION, COLORADO, ASSIGNORS TO AMERICAN TYPEWRITER COMPANY, A CORPORATION OF NEW YORK.

RIBBON GUIDE AND POINTER.

1,011,366.

Specification of Letters Patent.

Patented Dec. 12, 1911.

Application filed February 19, 1910. Serial No. 544,953.

To all whom it may concern:

Be it known that we, HALBERT E. PAYNE, a citizen of the United States, and a resident of New York city, New York county, State of New York, and SILAS G. WRAY, a citizen of the United States, and a resident of Grand Junction, Colorado, have invented certain new and useful Improvements in Ribbon Guides and Pointers, of which the following is a specification.

Our invention relates to typewriting machines, and particularly to a cheap and simple form of ribbon shift and pointer for such machines.

One of the objects of our invention is to provide a ribbon shift, that is simple and inexpensive to construct, and that can be readily attached to a typewriter without altering or re-constructing the machine and that will enable the type to strike all parts of a single or multi-color ribbon.

Another object of the invention is to provide a ribbon shift mechanism with a pointer so arranged that it will prevent the beginning and tail end of a sheet of paper from coming into contact with the ribbon, at the same time indicating the position of the next letter to be printed when the platen is thrown up to show the writing.

With the above and other objects in view, our invention consists in the parts, improvements and combinations, more particularly pointed out in the claims.

Referring now to the drawings which are attached to this specification and form a part thereof: Figure 1 is a view of a typewriter carriage with the platen thrown up to inspect the writing, to which the improvement has been added. Fig. 2 is a front elevation showing the operation of one of the pointers secured to the frame carrying the ribbon shift. Fig. 3 is a side elevation with parts broken away showing the ribbon shift and pointer, when the paper is in the machine and the platen has been lowered ready for writing. Figs. 4, 5 and 6 are details of the ribbon shift and pointer.

As illustrated in Fig. 1, the platen 1, is rotatably mounted in the pivoted platen carrier 2, pivoted at 3 in the reciprocating carriage 4 of the typewriter. The arms 5 of the platen carrier carry a scale 6 at one end. The paper 7 is fed into the machine in the

usual manner by the coöperation of the platen 1 and feed roll 8. Paper guides 9 are likewise provided, as well as a scale 10, which lies adjacent to the platen 1, the paper passing between the scale 10 and the platen. A multi-color ink ribbon 11 is provided which is preferably made in two colors 12, 13, which may be black and red respectively, the ribbon passing from the spool 14 to the spool 15 and vice versa during the operation of the machine. Any suitable means for feeding the ink ribbon, such as the gear 16 connected to a spool, and operated from the universal bar of the machine or in any desired manner, may be used.

In accordance with the invention, we provide a ribbon guide and pointer, together with means for shifting the ribbon guide, so as to print either black or red at will, and so as to use all parts of either the black or red ribbon or of a single color ribbon, if the latter is utilized. We make use of a frame 17 having sides 18, the sides being united at one end to form a pointer 19. This pointer coöperates with the scale 6, to indicate the position of the carriage when writing. A pair of arms 20, suitably spaced from the sides 18, so as to leave openings 21, are provided. The arms 20 are also separated from each other, so as to leave the opening 22 between them, the ribbon passing across said opening, and the type bars making their impression by pressing against the ribbon when stretched over said opening. The type bars pass through an aliner or guide 23, the ribbon being stretched over the mouth of the aliner by the action of the ribbon-guiding mechanism. A sliding ribbon guide for shifting the ribbon transversely to bring either color under the printing point and to adjust the ribbon so as to use all parts of it is supported and guided on the arms 20. The sliding guide consists of a frame 25, provided with a handle 26 secured and preferably integral with said frame, the frame being provided with bent projections 27, that embrace the edges of the arms 20, so as to guide the ribbon guide 25 to and fro. Lugs 28 connected to the frame 25 are also provided, the lugs sliding in the notches 29 on arms 20. These lugs determine the innermost and outermost position of the frame

25 by striking shoulders 30 and 31 at the ends of the notches 29. Ribbon guides are formed on the frame 25 and are preferably integral therewith. They consist of the lips 5 32, 33, 34 and 35, which provide openings 36 and 37 to admit the ribbon. The lips preferably do not meet, but leave an open space 38 between them to permit the ready insertion of the ribbon edgewise through 10 the openings into the spaces 36 and 37. A pointer 40 carried by arms 41 is pivotally secured to a rod 42, carried by the frame 17. A coil-spring 43 with an arm 44 surrounds the rod 42, and presses the pointer 40 up- 15 wardly toward the platen, so that it follows the platen when the latter is swung upwardly to inspect the writing, and points at the next letter to be printed, as clearly indicated in Fig. 1.

20 The pointer frame 17 and sliding ribbon guide 25 are preferably each made of sheet metal, so that they may be quickly and cheaply stamped out. Means are provided for removably securing the combined ribbon 25 guide and pointer to a frame which shifts in order to shift the platen frame to print upper case and figures. For this purpose, brackets 45 integral with the frame 17 are preferably provided, the brackets being se- 30 cured to the carriage frame by screws 46. In the embodiment of the invention illustrated the brackets 45 are secured to a frame 47 which carries the rails 48 so that the ribbon guide is secured to the means for 35 shifting the carriage which in turn shifts the platen. Other means for shifting the platen may be used.

In the form shown in the drawings the frame 47 is pivoted at 49 to a pair of arms 40 50, one on each side of the frame. The arms 50 are pivoted at 61 in the fixed frame of the typewriter. An arm 51 extends from one arm 50 and is connected to a shift key 52 which is pivoted at 53 and carries a stud 45 54 that engages a slot 55 in a projection 56 that is attached to the arm 51. By depressing either one of the keys 52 the platen is shifted in the desired direction. The entire ribbon guide and pointer mechanism may 50 thus be easily put in place and removed from the machine at will and shifts with the platen so as to be in proper position at all times.

The operation of our invention will be 55 evident from the foregoing description.

By catching hold of the handle 26 which is in plain view and near the operator, the ribbon guide may be shifted to change the color of ribbon used. When the platen 1 is 60 raised, the pointer 40 follows the platen, and shows the position of the next letter to be printed. The pointer 19 indicates the position of the carriage. The pointer 41 located and arranged as described, also serves 65 to prevent smudging the beginning and tail

end of a sheet of paper, or the closing flap of an envelop, which has a tendency to leave the platen roll and strike the ribbon when it is fed by the platen through the machine.

It will be understood that our invention is not confined to the particular form of ribbon shift and pointer illustrated, as modifications may be made therein, without departing from the principle of the inven- 70 tion. 75

Having thus described our invention, what we claim and desire to secure by Letters Patent, is:—

1. In a typewriting machine, the combina- 80 tion with a pivoted platen carrier, of a pointer mounted beneath said carrier, a frame, a ribbon guide slidably mounted on said frame, said pointer being mounted on said frame and adapted to move between 85 said guide and said platen, means for shifting said platen to print the desired case and means for securing said pointer, frame and ribbon guide to said platen-shifting means.

2. In a typewriting machine, the combina- 90 tion with a pivoted platen carrier of a combined ribbon guide and pointer, comprising a frame, a ribbon shifting frame slidably mounted on said frame, a pivoted pointer adapted to swing between said frame and 95 platen, means for shifting said platen to print the desired case and means for securing said pointer, frame and ribbon guide to said platen-shifting means.

3. In a typewriting machine, the combina- 100 tion with a pivoted platen carrier, of a combined ribbon guide and pointer, comprising a spring-pressed pointer arranged beneath said carrier, a frame, a ribbon guide on said frame, means for pivotally mounting said 105 pointer on said frame whereby said pointer is adapted to move between said ribbon guide and said platen, and means for shifting said ribbon guide on said frame rela- 110 tively to said pointer.

4. In a typewriting machine, the combina- 115 tion with a pivoted platen carrier, of a combined ribbon guide and pointer comprising a pointer arranged beneath said carrier, a frame, a ribbon guide on said frame, means 120 for pivotally mounting said pointer on said frame whereby said pointer is adapted to move between said ribbon guide and said platen, and hand-operated means for shifting said ribbon guide on said frame rela- 125 tively to said pointer, means for shifting said platen to print the desired case and means for securing said pointer, frame and ribbon guide to said platen-shifting means.

5. In a typewriting machine, the combina- 125 tion of a frame for guiding an ink ribbon, said frame being provided with a support, a sliding ribbon guide supported and guided by said support, and a handle on said guide for shifting the ribbon, a platen 130

carrier, means for shifting said platen carrier, and means for securing said frame to said shifting means.

6. In a typewriting machine, the combination of a frame of sheet metal, said frame being provided with a pair of sheet metal arms and having a lug for attachment to platen-shifting means, a one piece sliding frame of sheet metal supported and guided on said arms, said sliding frame being adapted to guide a ribbon and a handle integral with said sliding frame.

7. In a typewriting machine, the combination of a carriage, a frame provided with a pointer, a scale secured to said carriage with which the pointer coöperates, a sliding frame guiding the ribbon supported and guided on said first mentioned frame, and a handle secured to said sliding frame for shifting the ribbon.

8. In a typewriting machine, the combination with a pivoted platen carrier, of a combined ribbon guide and pointer, comprising a frame, means for removably securing said frame to the frame carrying the platen carrier, a ribbon-shifting frame slidably mounted on said frame, and a pivoted pointer adapted to swing between said frame and platen.

9. In a typewriting machine, the combination with a pivoted platen carrier of a combined ribbon guide and pointer, comprising a frame, a ribbon-shifting frame slidably mounted on said frame, a pointer pivoted to said frame, and yielding means for pressing said pointer toward said platen when the platen is raised, said pivoted pointer being adapted to swing between said frame and platen.

10. In a typewriting machine, the combination with a pivoted platen carrier of a ribbon guide, comprising a sheet metal open frame removably secured to the frame carrying the platen carrier, said frame being

provided with sides united at one end to form a pointer and a pair of arms, spaced from the sides of said frame, and from each other, so as to leave an opening between said arms, a sliding ribbon guide mounted on said arms, and a handle secured to said guide.

11. In a typewriting machine, the combination of a carriage, a frame provided with a pointer, a scale secured to said carriage with which the pointer coöperates, a sliding frame guiding the ribbon supported and guided on said first mentioned frame, and a handle secured to said sliding frame for shifting the ribbon, means for shifting said platen to print the desired case and means for securing said pointer, frame and ribbon guide to said platen-shifting means.

12. In a typewriting machine, the combination with a pivoted platen carrier of a combined ribbon guide and pointer, comprising a frame, a ribbon-shifting frame movably mounted on said frame, a pointer pivoted to said frame, and means for pressing said pointer toward said platen when the platen is raised, said pivoted pointer being adapted to swing between said frame and platen, means for shifting said platen to print the desired case and means for securing said pointer, frame and ribbon guide to said platen-shifting means.

In testimony whereof, we have signed our names to this specification, in the presence of two subscribing witnesses.

HALBERT E. PAYNE.

SILAS G. WRAY.

Witnesses as to the signature of Halbert E. Payne:

EDWARD J. MARTIN,

B. JENSEN.

Witnesses as to the signature of Silas G. Wray:

J. ERNEST LEAVERTON,

R. R. PALMER.