

No. 789,084.

PATENTED MAY 2, 1905.

N. C. DARROW.
TYPE WRITING MACHINE.
APPLICATION FILED MAY 2, 1904.

Fig. 1

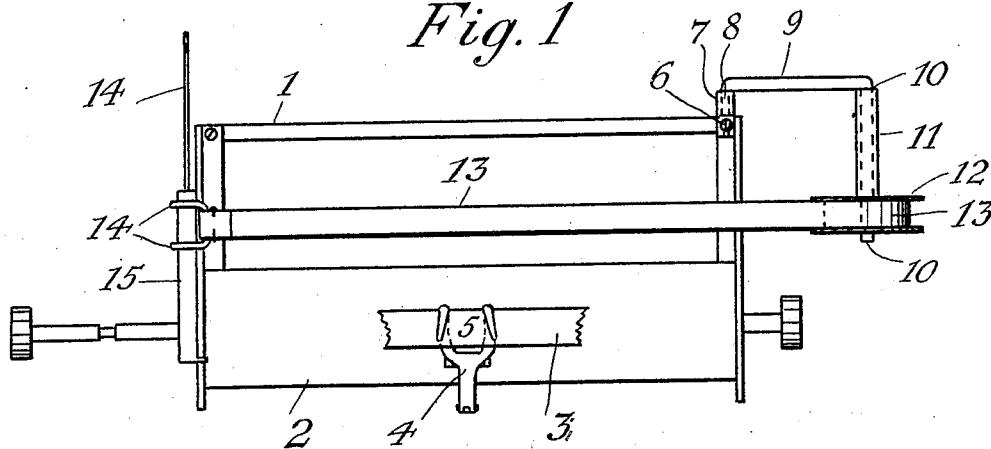


Fig. 2

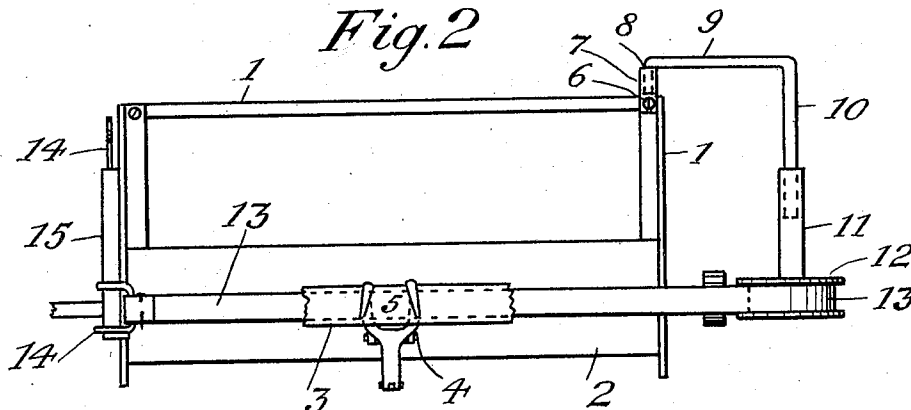


Fig. 3

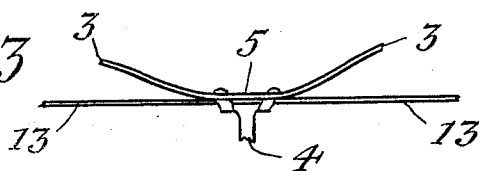


Fig. 4

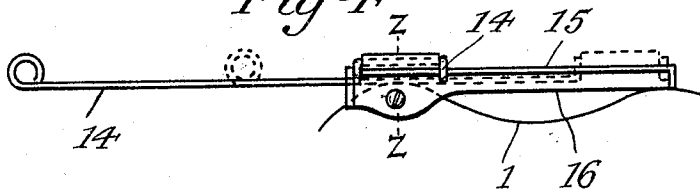
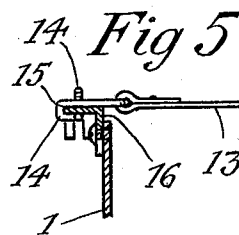


Fig. 5



Witnesses
Theo. Lagard.
H. A. Bowman.

Inventor
Noble C. Darrow
By *P. H. Gunkel*
his Attorney.

UNITED STATES PATENT OFFICE.

NOBLE C. DARROW, OF MINNEAPOLIS, MINNESOTA.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 789,084, dated May 2, 1905.

Application filed May 2, 1904. Serial No. 205,880.

To all whom it may concern:

Be it known that I, NOBLE C. DARROW, a citizen of the United States, residing at Minneapolis, county of Hennepin, and State of Minnesota, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates to ribbon attachments for type-writing machines; and its object is improvement of the means for the attachment to the machine of a second ribbon of a color different from that of the ribbon normally used and for presenting the second ribbon at the printing-point from time to time as the operator may desire.

In my earlier patent, No. 704,242, dated July 8, 1902, my improvements comprised a ribbon-spool attached to one end of the carriage in position to permit the ribbon to be drawn from the spool across the printing-point and held in place by a catch or other device at the opposite end of the carriage until released by the operator and then to be retracted and rewound upon the spool by a spring or otherwise.

My present improvements are intended to obviate the necessity of unwinding and pulling the ribbon across the machine whenever it is to be used, and this end I accomplish by making the spool and the device for holding the ribbon end slidable on ways or guides, whereby the ribbon is adapted to be moved laterally to and away from the printing-point.

My improvements are illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of parts of the carriage of an Oliver type-writing machine provided with my improved attachments and showing the secondary ribbon in inoperative position. Fig. 2 is a similar view showing the secondary ribbon interposed at the printing-point. Fig. 3 is a front view of the parts at and about the printing-point, as in Fig. 2. Fig. 4 is a view from the left side of Figs. 1 or 2, showing the devices for holding and guiding the end of the secondary ribbon; and Fig. 5 is a sectional view on the line *z z* of Fig. 4.

In the drawings, 1 designates a portion of

the carriage-frame; 2, the cylindrical platen; 3, the ordinary inked ribbon, and 4 the device for holding the ribbon 3 and presenting a portion of it at the printing-point, which may be assumed to be at 5.

It is to be understood that the parts enumerated and other parts necessary to an operative type-writing machine are of the usual or of any suitable construction.

On one of the rear corners of the carriage is attached a bracket 6, provided with a rearwardly-extending socket 7 for receiving and adjustably holding the end of the secondary spool-carrier. This carrier consists of an angular bar having its inner end 8 fitting in the socket 7, a middle portion 9 extending outward from the end of the carriage, and its spool-guiding portion 10 extending forward parallel with the end of the carriage and at a right angle to the axis of the platen. The portion or arm 10 is angular in cross-section to slidably support and prevent the turning of the sleeve 11, which constitutes the axis of the spool 12. The spool may be subjected to spring tension to hold the ribbon taut in the manner described in my former patent.

The ribbon 13, carried by the spool, has its unwound portion stretched across the machine in rear of the platen to the other end of the carriage, where its end is attached to a slide 14. This slide engages and is guided in its movements by a way consisting of a guide-flange 15, projecting outward from a plate 16, secured along the upper edge of the end of the carriage-frame. The spool being slidable on the bar 10 and the slide 14 being slidable in the same direction on its guide 15, the ribbon 13 is thereby made movable in a lateral plane toward or away from the printing-point, as from the position shown in Fig. 1 to that shown in Fig. 2. The bar 10 and guide 15 are so located that the ribbon 13 will be in a plane below that of the primary ribbon 3—that is, in a plane between the latter ribbon and the paper that is to be printed upon.

In use the operator type-writes in the usual way, the ribbon 3 serving as the inking medium, until he wishes to utilize the ribbon 13 to change the color of the succeeding print.

To interpose the latter ribbon at the printing-point he need do nothing more than move the spool 12 and the slide 14 toward him the proper distance on their respective guides.
5 As the ribbon 13 is interposed between the ribbon 3 and the paper, the former will determine the color of the print. To remove the ribbon 13 from the printing-point, the spool and slide are moved back to their former positions.
10

While my improvements are shown as applied to a machine of the class in which the printing-point is on an upper portion of the platen, it is not intended that their use be confined to machines of that class, for they are
15 equally desirable for use as attachments to type-writing machines of other classes or types, it being only necessary to so vary the shape and location of the guides for the ribbon-carrying spool and slide as to enable the
20 latter to be reciprocated to move the ribbon laterally to and away from the printing-point.

What I claim, and desire to secure by Letters Patent, is—

In a type-writing machine, the combination 25 with a primary inking-ribbon, of a secondary inking-ribbon differing in color from the former, a spool for winding the ribbon at one side of the machine, a slide for holding an unwound portion of the ribbon at the other side 30 of the machine, and guides on which said spool and slide are slidable for moving the secondary ribbon laterally to interpose it between the primary inking-ribbon and the printing-point and for retracting it, substantially as 35 set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 20th day of April, 1904.

NOBLE C. DARROW.

Witnesses:

P. H. GUNCKEL,
H. A. BOWMAN.