Aug. 15, 1950 C. P. HUETHER 2,518,893

DETACHABLE RIBBON GUIDE FOR TYPEWRITING MACHINES

Filed July 13, 1946

Fig. 1

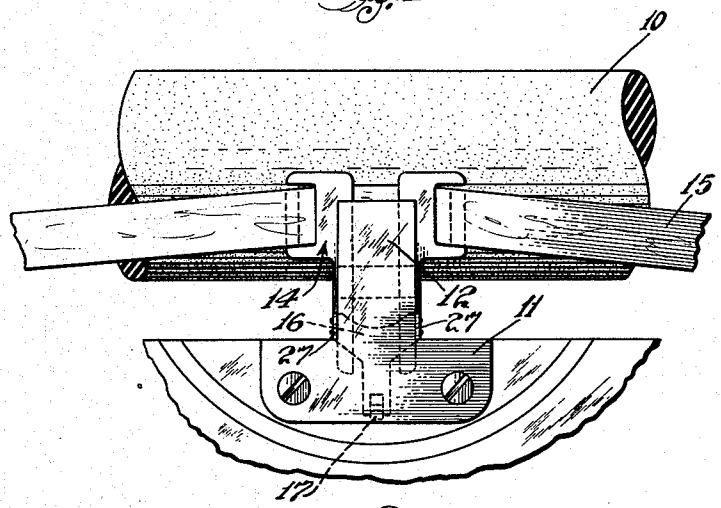


Fig. 2

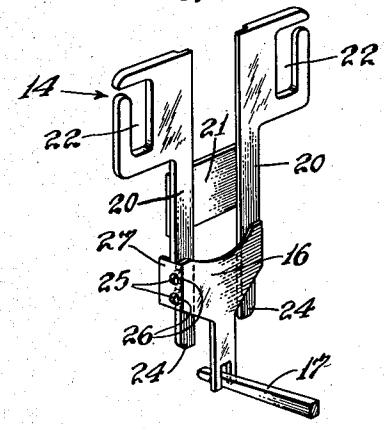
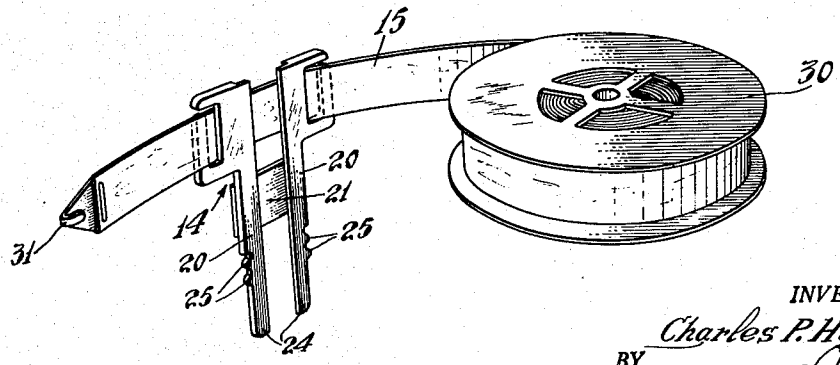


Fig. 3



INVENTOR.
Charles P. Huether
BY
Ernest J. Joerren
ATTORNEY

Patented Aug. 15, 1950 2,518,893

UNITED STATES PATENT OFFICE

2,518,893

DETACHABLE RIBBON GUIDE FOR TYPEWRITING MACHINES

Charles P. Huether, New York, N. Y.

Application July 13, 1946, Serial No. 683,542

1 Claim. (Cl. 197—170)

1

The present invention relates to an improved inking ribbon unit for type writing machines and the like.

Type writing machines now in use are provided with an inking ribbon guide which is secured to a vibrator actuated by the key levers to place the ribbon between the type and the paper each time a key is struck. The ribbon is carried on a spool, passes through the guide, and is slowly wound on a second spool rotated by operation of the machine whereby an unused portion of the ribbon is continuously presented to the type.

When the inking ribbon has been transferred from the first spool to the second spool, the inking surface thereof has been used to such an extent that a fresh ribbon must be substituted. Usually the second spool together with the used ribbon is removed from the machine and is discarded. The first spool from which the ribbon has been unwound is placed in the position previously occupied by the second spool and a spool carrying a fresh ribbon is placed in the position previously occupied by the first spool. The ribbon must then be threaded through the guide and attached to the rotated spool to arrange the ribbon for continuous passage through the guide.

This threading operation, even when performed by the nimblest hands, results in soiling of the fingers by the ink coated surface of the ribbon. Due to the inaccessibility of the guide by reason of the construction of existing type writing machines, the threading operation requires considerable time and patience and inevitably results in soiling of the fingers, as heretofore mentioned. This requires the typists to wash their hands before resuming work which further adds to the time consumed in changing the ribbons.

An object of the present invention is to overcome the foregoing difficulties and disadvantages by providing an improved inking ribbon unit which does not require a threading operation to be performed by the typist when changing the ribbon.

Another object is to provide such a unit which enables ribbon changes to be made in a minimum period of time without handling of the inked surface of the ribbon and thereby preventing the soiling of fingers and attendant nuisances.

A further object is to provide such a unit which is simple and inexpensive in construction and can be manipulated by the typist without skill.

Other and further objects of the invention will be obvious upon an understanding of the illustrative embodiment about to be described, or will be indicated in the appended claim, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

2

In accordance with the invention, it has been found that the foregoing objects may be accomplished by providing a preassembled unit which comprises an inking ribbon and a guide through which the ribbon extends, the guide being provided with means for detachably securing the same to the vibrating element of the machine which is modified for the reception of the guide. The ribbon is carried on a spool and its leading end extends through the guide whereby the spool and guide can be packaged as a unit.

A preferred embodiment of the invention has been chosen for purposes of illustration and description, and is shown in the accompanying drawing, forming a part of the specification, wherein:

Figure 1 is an elevation view of a fragment of a type writing machine embodying the present invention.

Figure 2 is a perspective view of the guide and vibrating element, certain elements of the machine being omitted for clearness.

Figure 3 is a perspective view of a preassembled unit in accordance with the invention, illustrating a spool carrying an inking ribbon and a guide positioned on the leading end of the ribbon.

Referring to the drawing in detail, there is shown, in Figure 1, a portion of a type writing machine illustrating a platen cylinder 10 for presenting the paper on which the type writing is to be applied, a rigid frame portion 11 of the machine, a ribbon guide slide 12 supported by the frame portion, a guide 14 mounted on the slide for up and down movement, an inking ribbon 15 extending through the guide, and a vibrating element 16 operated by an arm 17 for effecting the movement of the guide.

The parts of the machine are conventional, except as hereinafter noted, and detailed illustration thereof is not believed to be necessary.

As shown in Figure 2 the guide 14 comprises a pair of upright spaced apart members 20 connected by a cross-piece 21 and each having a ribbon receiving guide opening 22 at the upper end. The lower end of each member 20 has a reduced section 24 formed with bumps or projections 25 adapted to be received by apertures 26 in slightly yieldable side portions 27 of the vibrating element 16 adapted to cooperate with the projections 25 to lock the sections 24 in the side portions 27. The projections 25 and aper-

tures 26 are so constructed and arranged to enable the sections 24 to be readily slid into and out of locking connection with the side portions by the application of a manual force but at the same time securely retain the sections 24 against displacement from the side portions due to forces exerted during the normal operation of the type writing machine.

In Figure 3, there is shown an inking ribbon unit in accordance with the invention comprising a spool 30 carrying the ribbon 15 and a guide 14 such as illustrated and described in connection with Figure 2 through which the leading end of the ribbon is threaded at the time the unit is assembled for distribution to the consumer. The extreme end of the ribbon is provided with a conventional hook 31 for attaching the ribbon to the spool on which it is wound during its use in a type writing machine. The hook further serves as an enlargement for preventing accidental separation of the ribbon and its guide by reason of the guide sliding towards the extreme end of the ribbon.

It will be seen that the present invention provies an improved ribbon unit which is preassembled and can be readily positioned in a type writing machine by attaching the guide to the vibrating element. This can be accomplished without handling the inked surface of the ribbon. When it is desired to replace a used ribbon, the used ribbon together with its guide is discarded, and a fresh ribbon is mounted in its place as described herein.

While the present invention has been described in connection with type writing machines, it will be appreciated that the same may be advantageously utilized on other forms of business machines requiring an inking ribbon to be changed from time to time.

I claim:

In a typewriting machine, the combination of a detachable ribbon guide comprising a pair of upright parallel spaced apart members, and a cross-piece connecting said members intermediate the ends thereof, each of said members having a ribbon guide opening formed therein at the upper end portion thereof and having a lower end portion of reduced width provided with projections at the outer edge thereof; and a vibrating element having yieldable side portions formed with apertures therein adapted to receive said projections to removably attach said lower end portions of said ribbon guide to said vibrating element.

CHARLES P. HUETHER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
492,844	Sjoberg	Mar. 7, 1893
1,040,406	Pool	Oct. 8, 1912
1,100,135	Kennedy	June 16, 1914
2,252,075	Johnson	Aug. 12, 1941
2,386,439	Cordis	Oct. 9, 1945

FOREIGN PATENTS

Number	Country	Date
357,037	Germany	1922