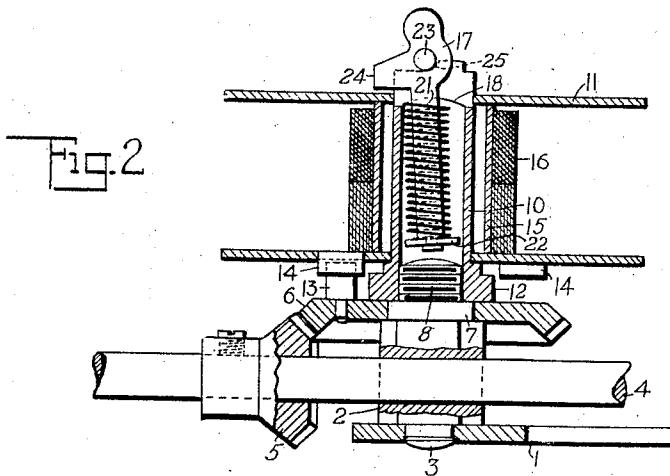
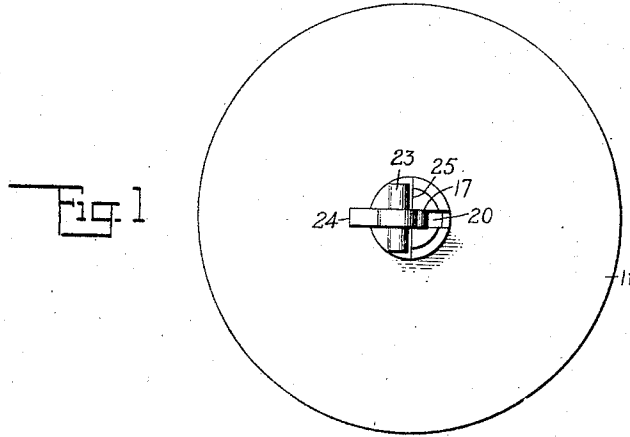


J. B. HOLDEN.
 RIBBON SPOOL HOLDER FOR TYPEWRITING MACHINES.
 APPLICATION FILED JAN. 5, 1921.

1,379,408.

Patented May 24, 1921.



WITNESSES

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UNITED STATES PATENT OFFICE.

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WRITER COMPANY, OF ILION, NEW YORK, A CORPORATION OF NEW YORK.

RIBBON-SPOOL HOLDER FOR TYPEWRITING-MACHINES.

1,379,408.

Specification of Letters Patent.

Patented May 24, 1921.

Original application filed March 2, 1920, Serial No. 362,675. Divided and this application filed January 5, 1921. Serial No. 435,222.

To all whom it may concern:

Be it known that I, JOSEPH B. HOLDEN, citizen of the United States, and resident of Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Ribbon-Spool Holders for Typewriting-Machines, of which the following is a specification.

My invention relates to typewriting machines, and it has for its principal object to provide a simple and convenient latch for retaining the ribbon spool on its shaft or spindle so as to be secure against accidental displacement but so that the spool can be readily removed when desired.

To the above and other ends my invention consists in certain features of construction and combinations and arrangements of parts, all of which will be fully set forth herein and particularly pointed out in the claims.

The present application is a division of my prior application Serial No. 362,675 for typewriting machines, filed March 2, 1920.

In the accompanying drawings,

Figure 1 is a top plan view of a ribbon spool and its support and including my improvements.

Fig. 2 is a vertical central sectional view of the same and some of the associated parts of a typewriter.

In my parent application above referred to there is shown a complete ribbon mechanism applied to a typewriting machine of the class described in the patent granted to Arthur W. Smith No. 1,342,513, June 8, 1920; but only a small fragmentary portion of said machine and said ribbon mechanism is shown in the present case. In the drawing 1 is a certain horizontal sheet metal bracket constituting part of certain framework in the typewriter. A block or post 2 is mounted on said bracket to which it is riveted at 3. A main ribbon spool drive shaft 4 is journaled in said bracket and it carries a bevel pinion 5 meshing with a bevel gear 6 which is journaled on a reduced part 7 of the block 2. Above this part 7 said block is still further reduced to form a short screw 8 on which is screwed the post or spindle 10 on which the ribbon spool 11 is rotatably mounted. Said post 10 has its base part 12 enlarged into a nut screwed down

over the screw 8 against the bearing 7 and retaining the gear 6 in place. Said gear has a pin 13 projecting upward therefrom and adapted to engage ears 14 struck down from the lower flange of the spool 11. Said spool comprises upper and lower flanges and a drum part 15 on which the ribbon 16 is wound. Suitable means are provided in the machine for turning the shaft 4 as the writing proceeds and said shaft through the gear 6 and pin 13 turns the spool.

My latch device 17 is mounted partly inside of the post 10 to which end said post is drilled or bored out from the bottom, making a hollow part up to the line 18 near the top of the post. A slot 20 is then cut diametrically across the solid upper end of the post deep enough to communicate with the round hollow part of the post. The latch 17 consists of a piece of flat stock or sheet metal having a stem that passes through the slot 20 and down into the hollow part of the post where it is surrounded by a coiled spring 21 compressed between the upper part 18 of the post and a washer 22 which is riveted on to the end of said stem. The construction is such that the spring 21 constantly tends to pull the latch 17 down into the post but said latch can be pulled up a limited distance but cannot be pulled clear out of the post on account of the spring 21 and washer 22.

The downward movement of the latch under the pressure of the spring 21 is limited by a pin 23 inserted laterally through the latch and projecting from it and resting on top of the post 10. The latch has a nose 24 which normally projects out over the spool 11 as shown in the drawing. The top of the post 10 has a high part and a low part connected by a curved slope 25 as shown by a dotted line in Fig. 2. When the nose 24 is in the latching position shown in the drawing the pin 23 rests on the low part of the post where it is held down by the spring 21 and it is prevented by the slope 25 from sliding back toward the right in Fig. 2; but the device can readily be grasped by the hand and lifted or pushed to the right, thus moving the pin 23 up on to the high part of the post and moving the nose 24 back to a position where it does not obstruct the removal of the spool.

It will be noted that the latch is small and inconspicuous but that it is effective and can be operated instantly to latch or unlatch the spool, and when in latching position it is not liable to accidental displacement. It will also be observed that the construction is extremely simple, consisting as it does of but two movable parts, namely, the latch itself and its spring.

10 It will of course be understood that changes can be made in the precise construction and arrangement of parts without departing from my invention.

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

1. The combination of a ribbon spool, a hollow post on which said spool is journaled, a latch in said hollow post and projecting above said post, and a spring tending to draw said latch down into said post, said latch being movable transversely of the axis of said post to bring a part of said latch over said ribbon spool to retain the latter in place and movable in the opposite direction to release said spool.

2. The combination of a ribbon spool, a hollow post on which said spool is journaled, a latch in said hollow post and projecting above said post, a spring tending to draw said latch down into said post, said latch being movable transversely of the axis of said post to bring a part of said latch over said ribbon spool to retain the latter in place and movable in the opposite direction to release said spool, and an abutment

on the top of said post to hold said latch yieldingly in its spool-retaining position.

3. The combination with a ribbon spool, of a post on which said spool is journaled, said post being counter-bored from the bottom to a point short of the top of said post and having a diametral slot cut in it at the top and joining the counter-bore; a latch playing in said slot; and a spring tending to draw said latch down into the post, said latch being movable along said slot into and out of position to retain the spool on the post.

4. The combination with a ribbon spool, of a post on which said spool is journaled, said post being counter-bored from the bottom to a point short of the top of said post and having a diametral slot cut in it at the top and joining the counter-bore, a latch playing in said slot, a spring tending to draw said latch down into the post, said latch being movable along said slot into and out of position to retain the spool on the post and said latch and the top of said post having cooperating lugs whereby the latch is yieldingly held in its spool-retaining position.

Signed at Syracuse, in the county of Onondaga, and State of New York, this 23 day of December, A. D. 1920.

JOSEPH B. HOLDEN.

Witnesses:

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