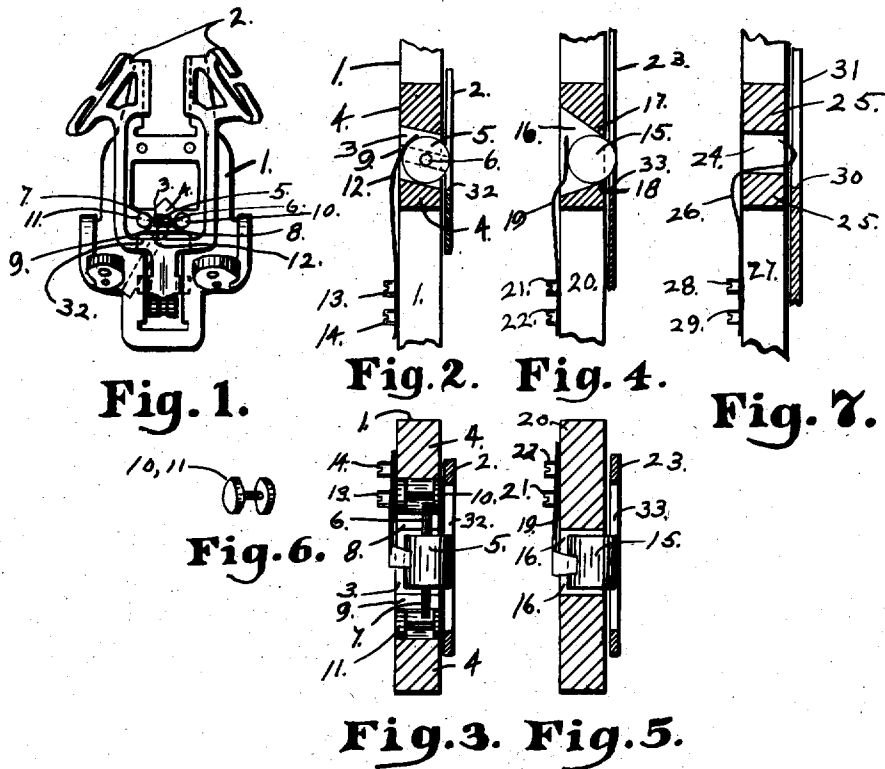


A. H. BENZEE.
 RIBBON CARRIER MECHANISM FOR TYPE WRITING MACHINES.
 APPLICATION FILED AUG. 12, 1910.

1,001,608.

Patented Aug. 29, 1911.



WITNESSES:

Jimmie W. Benzee
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INVENTOR

Arthur H. Benzee

By his Attorney
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UNITED STATES PATENT OFFICE.

ARTHUR H. BENZEE, OF BUFFALO, NEW YORK

RIBBON-CARRIER MECHANISM FOR TYPE-WRITING MACHINES.

1,001,608.

Specification of Letters Patent. Patented Aug. 29, 1911.

Application filed August 12, 1910. Serial No. 576,918.

To all whom it may concern:

Be it known that I, ARTHUR H. BENZEE, a citizen of the United States, residing at Buffalo, in the county of Erie and the State of New York, have invented certain new and useful Improvements in Ribbon-Carrier Mechanism for Type-Writing Machines; and I do hereby declare the following to be a full, clear, and exact description of my invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in ribbon carrier mechanism for type-writing machines.

The object of my invention is to provide means for reducing the strain upon the ribbon carrier, when in use, and thereby greatly increase its durability.

To that end my invention consists of a device adapted to retard the said carrier near the end of its initial stroke or movement.

My invention is fully illustrated in details of construction in the accompanying drawings and will be described and claimed in the following specification.

In the drawings, Figure 1 is an elevation of a ribbon carrier bracket, with the carrier attached and my device incorporated on the said bracket. Fig. 2 is a vertical sectional view of my invention attached to the said carrier bracket. Fig. 3 is a horizontal sectional view of the same form of my invention as is illustrated in the two previous figures. Fig. 4 is a vertical sectional view of another form of my invention. Fig. 5 is a horizontal sectional view of the same form of my invention as is shown in Fig. 4. Fig. 6 is a perspective view of a spool stop or guide. Fig. 7 is a vertical sectional view of a third form of my invention.

Referring to the drawings, in Fig. 1, 1 is a ribbon carrier bracket, upon which is mounted the ribbon carrier 2. 3 is a recess in a cross-bar 4 of the bracket 1. Within the recess 3 rests a roller 5, having pivot ends 6 and 7, which work within slots 8 and 9, respectively. Spool stops or guides 10 and 11, secured within holes in the cross-bar 4, serve to limit the outward movement of

the said pivot ends within their respective slots. A spring 12, mounted by screws 13 and 14 (see Figs. 2 and 3) on the said bracket 1, bears lightly against the roller 5.

In Figs. 4 and 5 is shown a roller 15, held in position within the tapered recess 16 by the lips 17 and 18 and by the spring 19, which spring is secured to the bracket (shown in part) 20 by the screws 21 and 22. 23 is a carrier shown in part.

In Fig. 7, I have shown a recess 24 within a cross-bar 25, and a spring 26, fastened at its lower end to the bracket (shown broken) 27, by the screws 28 and 29. The upper end of the spring 26 is shown extending through the recess 24 in a position to engage the edge 30 of the carrier 31.

32, 33 of Figs. 1-5 are edges of carriers similar to the edge 30 of carrier 31.

In operation, the rollers shown in Figs. 1, 2, 3, 4 and 5, and the upper end of the spring 26, serve, in their respective positions shown, as yielding resistances near the end of the initial stroke of each of the respective carriers and act to absorb or neutralize the inertia of the mass of the respective carriers after the said carriers have fulfilled their function in positioning the ribbon of the type-writing machine. Without my invention, the said inertia causes severe strain on that part of the carrier next to the lower connections as the carrier is arrested in its initial stroke.

In testing a working model of my invention, I have found the yielding obstruction (the roller or spring 26) to be admirably adapted to increase the life of the carrier intact by many times.

Having thus described my invention, I claim,

1. In a type-writing machine, a ribbon carrier bracket, a ribbon carrier mounted on said bracket, a roller having pivot ends positioned within said bracket, spool stops or guides adapted to retain the said roller within said bracket by coöperation with said pivot ends of said roller, and a flexible member secured to said bracket and contacting said roller.

2. In a type-writing machine, a ribbon carrier bracket, a reciprocating ribbon carrier mounted on said bracket, a yielding member mounted upon said machine and

adapted by its position in relation to the said carrier to be contacted and carried by the same.

3. In a type-writing machine, a ribbon carrier bracket, a ribbon carrier mounted on said bracket, a roller positioned within a recess in the said bracket, and adapted to contact the said carrier, means adapted to retain

the said roller within the said recess, and a flexible member adapted to cooperate with the said roller.

ARTHUR H. BENZEE.

Witnesses:

JENNIE W. BENZEE,
MILLARD F. BOWEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

Correction in Letters Patent No. 1,001,608

It is hereby certified that in Letters Patent No. 1,001,608, granted August 29, 1911, upon the application of Arthur H. Benzee, of Buffalo, New York, for an improvement in "Ribbon-Carrier Mechanism for Type-Writing Machines," an error appears in the printed specification requiring correction as follows: Page 2, line 2, for the word "carried" read *passed*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 19th day of September, A. D., 1911.

[SEAL.]

E. B. MOORE,

Commissioner of Patents,

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