

A. LOPEZ.
 RIBBON GUIDING AND LIFTING ATTACHMENT FOR TYPE WRITING MACHINES.
 APPLICATION FILED AUG. 13, 1912.

1,049,742.

Patented Jan. 7, 1913.

2 SHEETS-SHEET 1.

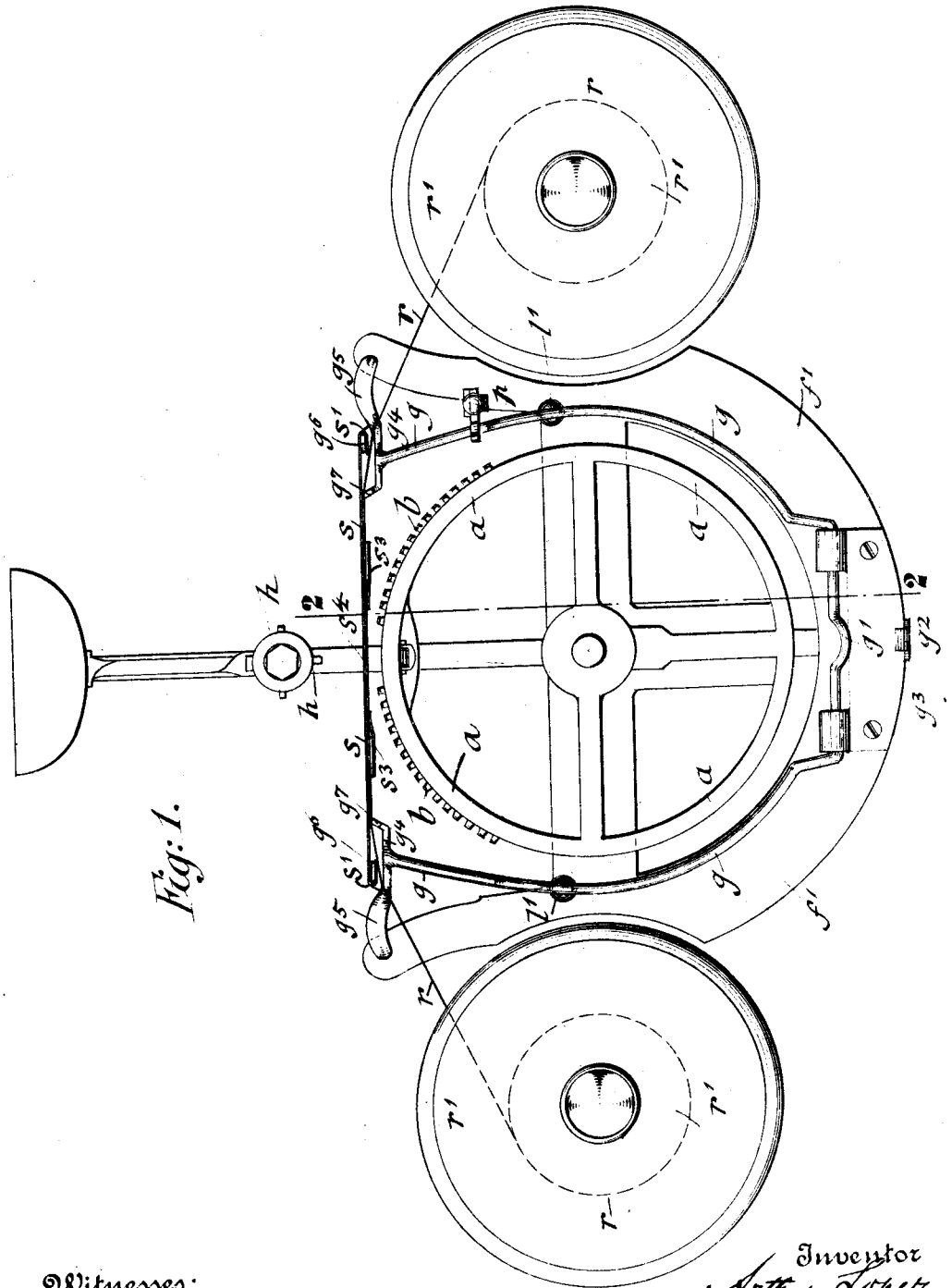


Fig. 1.

Witnesses:
 John Murtogh
 M. D. Allen

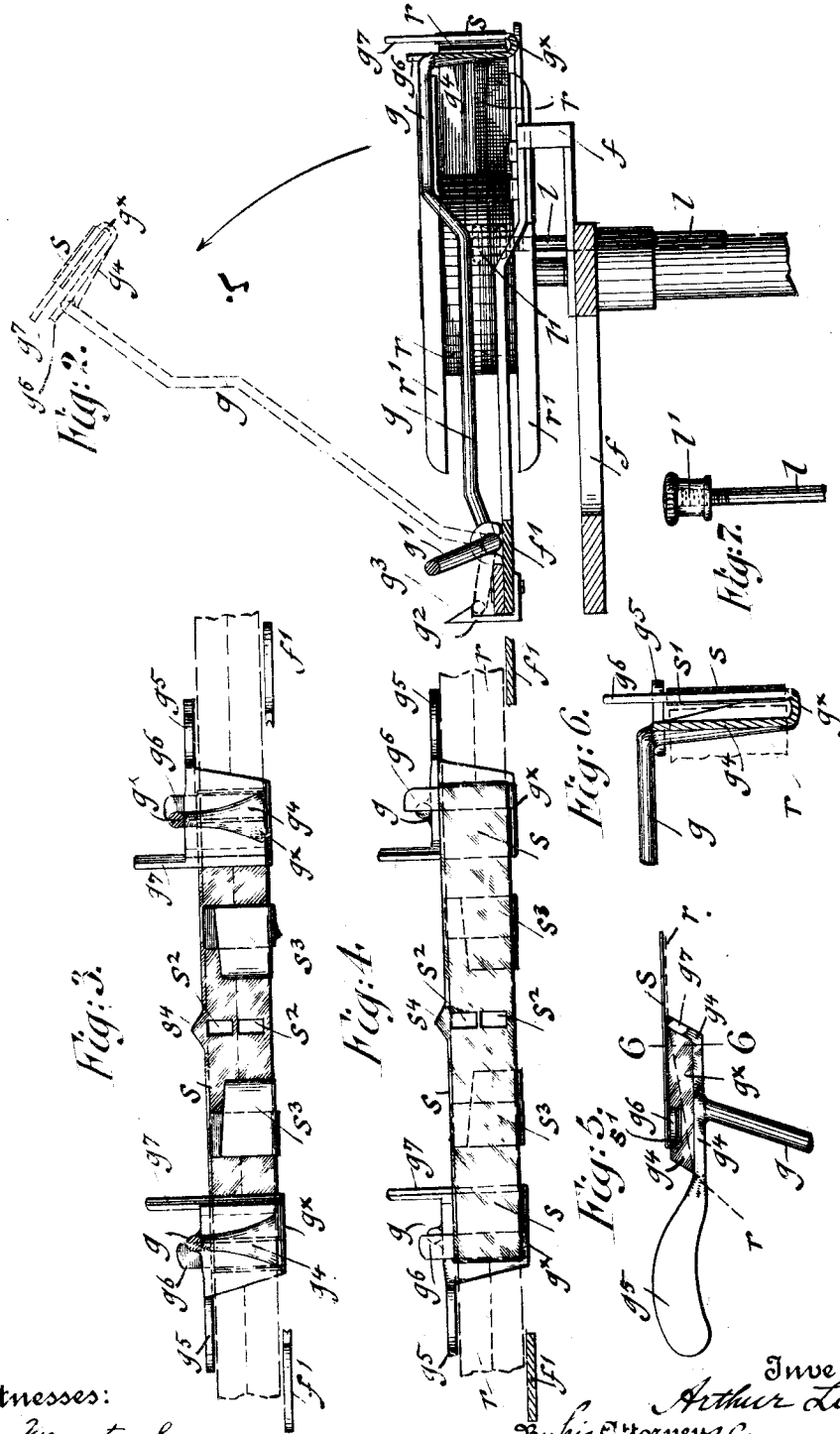
Inventor
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 By his Attorney
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UNITED STATES PATENT OFFICE.

ARTHUR LOPEZ, OF NEW YORK, N. Y., ASSIGNOR TO THE HAMMOND TYPEWRITER CO., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

RIBBON GUIDING AND LIFTING ATTACHMENT FOR TYPE-WRITING MACHINES.

1,049,742.

Specification of Letters Patent.

Patented Jan. 7, 1913.

Application filed August 13, 1912. Serial No. 714,838.

To all whom it may concern:

Be it known that I, ARTHUR LOPEZ, a citizen of the United States of America, residing in New York, in the borough of Manhattan, county and State of New York, have invented certain new and useful Improvements in Ribbon Guiding and Lifting Attachments for Type-Writing Machines, of which the following is a specification.

10 This invention relates to an improved ribbon guiding and lifting attachment for typewriting-machines, which is more specifically intended to be used in connection with the ribbon-shield of the Hammond
15 typewriting-machine; and the invention consists of a ribbon guide-frame which is hinged at its front-part to the frame of the machine, and the arms of which are provided at their rear-ends with upright posts
20 for applying the shield and with guiding and retaining devices for the ribbon made integrally with the rear-ends of the arms of the frame; and the invention consists further of means for adjusting the position
25 of the ribbon guide-frame and ribbon relatively to the printing point between the shuttle and hammer of the machine, and, lastly, of means by which the ribbon can be locked into lifted position for the conven-
30 ient removal and replacing of the same.

In the accompanying drawings, Figure 1 represents a plan-view of my improved ribbon feeding and guiding attachment for typewriting machines, Fig. 2 is a vertical
35 transverse section of the same on line 2, 2, Fig. 1. Figs. 3 and 4 are elevations of the ribbon and its covering shield and guiding devices, taken respectively from the inner and outer side of the same. Fig. 5 is a
40 plan-view of one end of the ribbon guide-frame, drawn on a larger scale. Fig. 6 is a vertical transverse section, on line 6, 6, Fig. 5, and Fig. 7, a detail view of one of the lifters for the ribbon guide-frame provided
45 with an adjustable knob at its upper end.

Similar letters of reference indicate corresponding parts throughout the different figures of the drawings.

Referring to the drawings, *a* represents
50 the anvil, *b* the shuttle, *h* the hammer, *s* the shield, *r* the ribbon and *r'* the ribbon spools of a Hammond typewriting-machine. To the upper part of the frame *f* of the machine, encircling the anvil, is applied a rib-

bon guide-frame *g* which is hinged at its
55 front-part to the frame *f* and provided between the sleeves of the hinge with an inclined upwardly-projecting handle *g'*, by which on being pressed downwardly the ribbon guide-frame can be lifted with the
60 ribbon into upwardly-inclined position, as shown in dotted lines in Fig. 2, and locked in this position by means of a spring-catch *g''* which is attached to the inner end of the supporting top-plate *f'* of the frame of the
65 machine and provided with a tapering end *g'''*.

The ribbon guide-frame *g* is made approximately of U-shape and provided with curved arms which extend from the hinged
70 rear-portion in backward direction, the main-portion of the arms being approximately concentric with the anvil *a*, and being provided at their front-ends with downwardly-bent plates *g''* having curved lower
75 portions *g'''* and flat laterally-extending handles *g''''* by means of which the guide-frame *g* can be taken hold of at either of its rear-ends for being lifted into an inclined position, as shown in Fig. 2. The curved portions *g'''* are provided with flat upright
80 posts *g''''* to which the bent-over or hook-shaped ends *s'* of the shield *s* are applied in the usual manner.

At the inner ends of the downwardly-bent plates *g''* are arranged upright posts *g''''*, the
85 edges of which serve for guiding the ribbon in connection with the opposite edges of the plates *g''* of the guide-frame, as shown clearly in Figs. 1 and 5. The curved lower portions *g'''* of the guide-frame serve for
90 guiding the lower edge of the ribbon, while the laterally extending handles *g''''* serve for holding the upper edge of the ribbon in position so as to prevent it from slipping out of the guiding devices while it is moved
95 from one spool to the other and back again.

The shield *s* is provided with one or two recesses *s''* located at its center, one above the other, in case a two-colored ribbon is used, while one recess *s''* in the shield *s* is used in
100 case a ribbon of one color is employed. The proper position of two-colored ribbons for printing in one color or the other is obtained by means of the usual post *p* arranged at one side of the ribbon guide-frame, and
105 which is provided with a step-shaped lug for holding the ribbon guide-frame and ribbon in its lower or upper position, accord-

ing as the one or the other color is to be used in printing. This holding-post is well known and forms no part of this invention. The shield *s* is further provided at its rear or inner side with upwardly-bent guide-lugs *s*³ of the usual construction, which serve to hold the ribbon closely on the shield while it is passed from one spool to the other and back again. At the center of the shield is further arranged the usual indicator-point *s*⁴ above the recess *s*¹.

The guide-devices at the ends of the arms of the ribbon guide-frame are made in one integral piece with each other and with the shield supporting-post, and dispense thereby with the number of separate ribbon guide-pieces heretofore used.

Below the curved arms of the ribbon guide-frame are arranged in the frame of the machine vertically-guided lifters *l* which are provided at the upper screw-threaded ends with interiorly-threaded adjustable buttons or heads *l*¹ by which the position of the ribbon guide-frame and shield relatively to the printing point can be accurately adjusted. The heads *l*¹ can be adjusted on the lifter-rods *l* so that the exact position of the shield and ribbon relatively to the printing instrumentalities is obtained. Each head *l*¹ is provided with a knurled rim for conveniently turning the same for adjusting it on the lifter-rod *l*.

By the improved ribbon guide-frame the guiding devices for the ribbon are considerably simplified and rendered more effective, the adjustment of the guide-frame relatively to the printing devices secured in a simple and effective manner, while the entire guide-frame can be lifted and held in raised position by which the removal and insertion of a ribbon preparatory to returning it into its proper position for printing, is greatly facilitated.

I claim:

1. In a typewriting-machine, a ribbon guide-frame having curved arms provided at their ends with guide-plates having posts for securing the ribbon-shield, and with means at the inner and outer edges and lower and upper ends of said guide-frame for guiding the ribbon.

2. In a typewriting-machine, a ribbon guide-frame, having curved arms provided at their ends with a downwardly-extending inclined guide-plate, a curved lower portion, a laterally-extending handle, and an upright guide-post for guiding the ribbon at the inner and outer edges of the guide-plate and post, and at the lower portion of the guide-plate and handle.

3. In a typewriting-machine, the combination of a ribbon guide-frame having curved arms provided at their ends with ribbon guide-devices at the inner and outer edges and at the upper and lower portions of the same, and posts for attaching the ends of the ribbon-covering shield, said guide-devices and posts being made in one integral structure.

4. In a typewriting-machine, the combination, with a supporting-plate and a ribbon guide-frame hinged to the same and provided with means for guiding the ribbon and applying the shield, of lifter-rods below said arms provided with adjustable heads for adjusting the position of the ribbon guide-frame and shield relatively to the printing devices.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

ARTHUR LOPEZ.

Witnesses:

PAUL GOEPFEL,
JOHN MURTAGH.