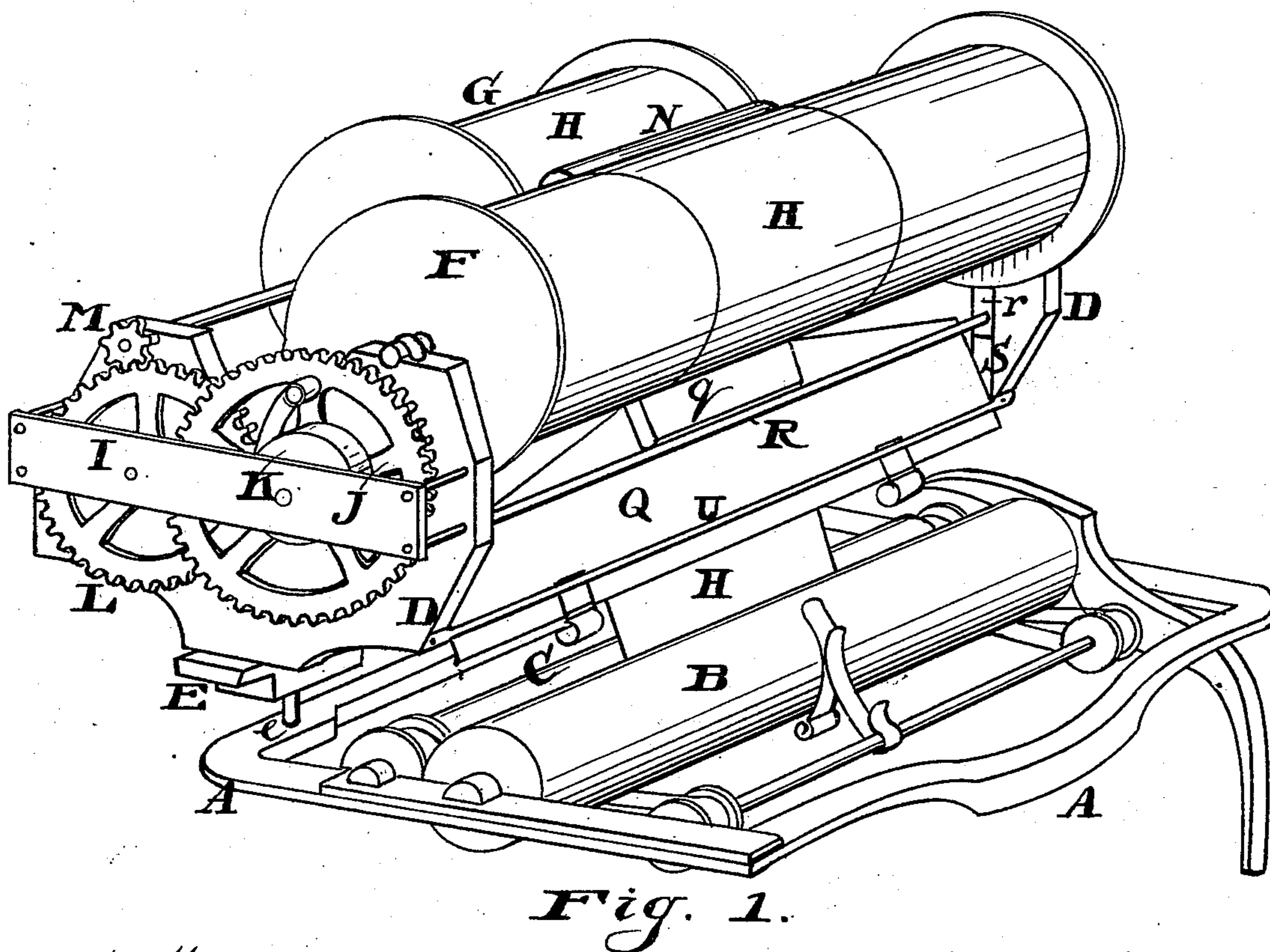
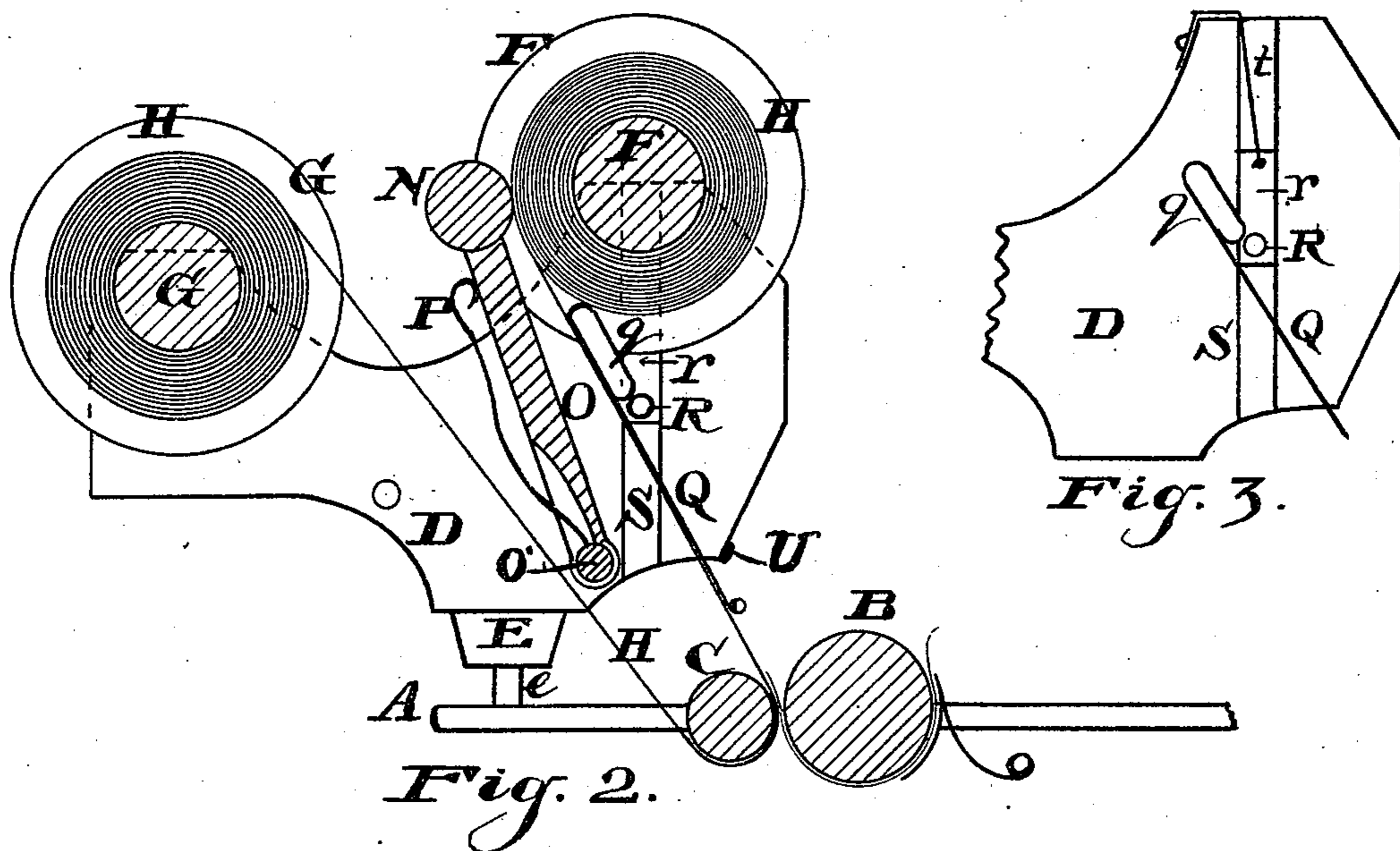


(No Model.)

G. L. RAWDON.
TYPE WRITING MACHINE.

No. 519,390.

Patented May 8, 1894.



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UNITED STATES PATENT OFFICE.

GEORGE L. RAWDON, OF CLEVELAND, OHIO.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 519,390, dated May 8, 1894.

Application filed October 4, 1893. Serial No. 487,187. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. RAWDON, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented a certain new and useful Feeding Attachment for Type-Writing Machines, of which the following is a specification.

This invention relates to a device for feeding paper to type-writing machines, and has for its object to facilitate the work by automatically operating the feeder conjointly with the movements of the lever which moves the paper under the impression roller, and the invention consists in the new construction and combinations, as hereinafter described and pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of my new feeding device, as seen mounted on a type-writing machine in working order. Fig. 2 is a cross section of the device through the middle of the rollers, showing the connection of the feed mechanism with the impression roller of the type-writer. Fig. 3 is a view of a portion of the inner face of one of the end pieces of the frame work, showing the vertical grooves in which the bearing of the guide plate rides and its means of self-adjustment.

A represents a part of the carriage frame of a type-writing machine. B is the impression roller, and C is the feed roller parallel with said impression roller. These are of the usual construction in type-writing machines.

My invention is described as follows:—

D D are the end bars or plates of a frame which support the working parts of my device. E is a bar forming the base of said frame, to the ends of which the said end bars D are firmly secured, and said base bar is provided with pins *e e* which enter holes in the carriage frame. Said frame may also be stiffened and strengthened by other rods or bars.

F is a roller journaled to the forward part of end plates D D, and G is a similar roller journaled to the rear part of said end plates D D. H is a ribbon having its ends attached to the said rollers F and G, and is made to wind back and forth on said rollers, as and

for the purpose hereinafter shown. The rear roller G is made to rotate by means of a spring and train of gear for taking up the ribbon as fast as it is paid off from the forward roller, as follows:—

I is a frame attached to the side of the end plate D in which a gear wheel J is journaled, having on its shaft a helical spring K, the moving end being attached to the wheel for the purpose of operating said gear and the train of gear connected thereto.

L is a second gear wheel journaled in the frame I, and meshing with a pinion on the shaft of said first gear J.

M is a pinion on the end of the shaft of the ribbon roller G, and in mesh with the gear L and derives its rotary motion from the said gear and spring as before stated.

N is a short roller journaled in a bar or frame O, pivotally attached to a longitudinal rod O' in the lower part of frame plates D D. Said roller bears against the ribbon H with pressure derived from a spring P fixed to the rod O', and is designed to hold the sheets of paper lying between the coils of the ribbon from slipping.

Q is a guide plate located underneath the roller F, designed for guiding the edge of the sheets of blank paper to the impression roller B of the type-writer, the paper passing between said guide plate and the feeding ribbon. Said guide plate is attached to a rod R having its ends supported in blocks *r, r*, riding in vertical grooves S in the end plates D D. Said guide plate is self-adjustingly held up against the roll by rubber or elastic cords *t, t*, attached to the blocks *r, r*, and secured to the top of the plates D D. *q* is a cushion block on the upper side of said plate Q which rests against the ribbon and serves to guide the edge of the blank papers under the top edge of said plate and guide it down on the ribbon to the impression roller B of the type-writer.

U is a rod attached to the lower corners of the end plates D D, against which the lower portion of the guide plate Q bears to keep it in position relative to the ribbon as the roll on roller F increases, or decreases.

The ribbon H passes from the roller F down

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and under the roller C on the type-writer and back up to the roller G, when the device is placed on the machine.

5 The method of applying and using this device is as follows: First, the ribbon is placed under and around the roller C as seen in Fig. 2, when the device is placed on the machine, and is then ready for operation. Next, the blank sheets of paper to be written upon are
10 inserted between the coils of the ribbon on forward roller F, by taking a sheet and inserting its top edge under the roller next to the guide plate *q*, with the left hand, and then with the right hand rotating the roller by a
15 crank or knob on the right hand end of said roller, and thus drawing the sheets in between the coils of the ribbon, and continuing to fill in sheets successively, until a sufficient number of sheets has been inserted, between
20 the coils of the ribbon, to last for any length of time desired. Now the operator may proceed to use the machine, the operations of which will also operate the feeder, and the sheets successively delivered to the machine
25 as the work progresses; the sheets will fall away from the machine as fast as they are freed therefrom.

The purpose of the motor is to take up the slack of the ribbon as fast as it is paid off

from roller F and wind the same on roller G, 30 the power of the spring being only sufficient to take up slack and keep the ribbon taut.

This device is especially adapted for telegraph operators in receiving messages by wire, as it saves the time of placing and re- 35 moving blank paper on the machine.

Having described my invention, I claim—

In a paper feeding device for type-writing machines the combination with the impression and feed rollers on the type-writer, of a 40 supporting frame mounted on the carriage of the type-writer, rollers F and G, journaled in said frame; ribbon H attached to said rollers and passed under the feed roller C of the type-writer; a spring K and gear train J, L M, at- 45 tached to the roller frames D D, and connected with and operating said ribbon roller G; a spring actuated pressure roller N, bearing against rear side of ribbon roller F, and a self-adjusting guide plate Q, journaled in grooves 50 S, S, in end plates D D, all constructed and combined to operate substantially as described and for the purpose set forth.

GEORGE L. RAWDON.

Witnesses:

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