W. J. ROCHE.

TYPE WRITING MACHINE.

APPLICATION FILED JUNE 1, 1912.

1,069,726.

Patented Aug. 12, 1913.

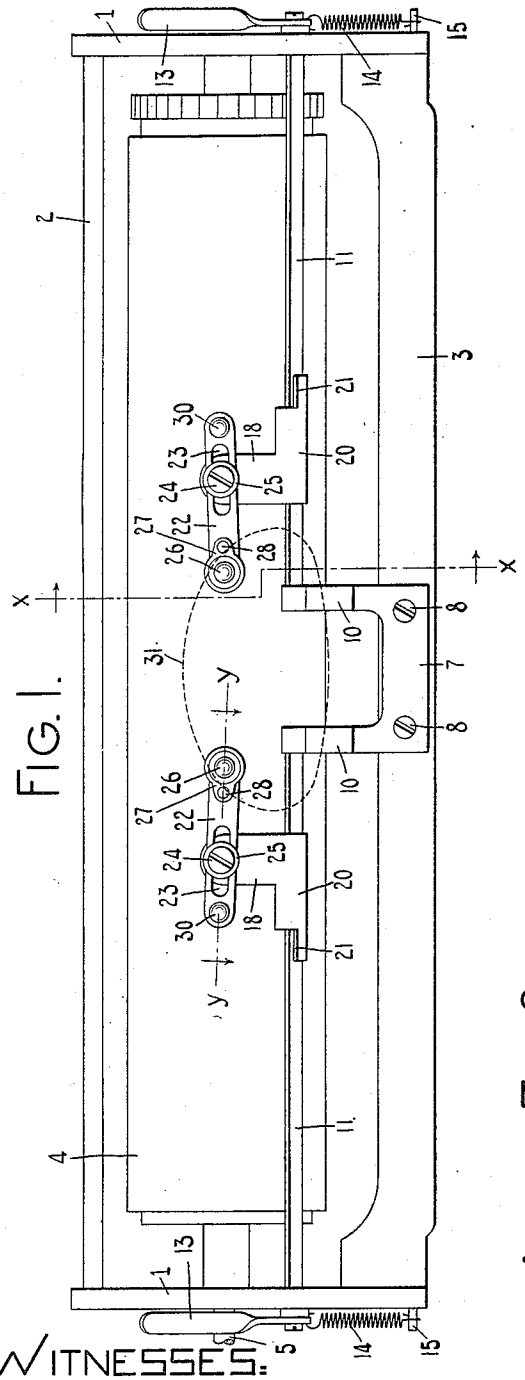


FIG. 1.

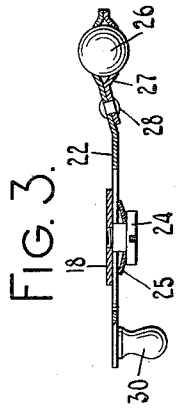


FIG. 3.

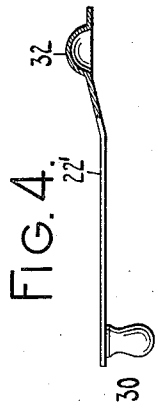


FIG. 4.

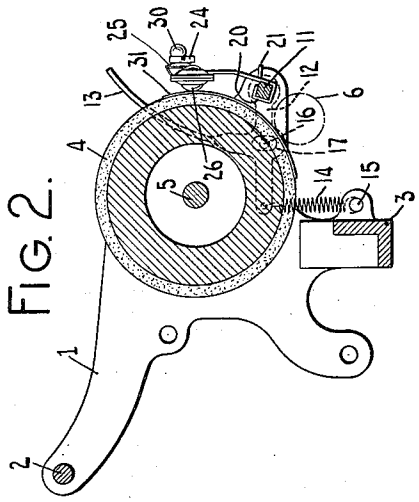


FIG. 2.

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WILLIAM JANSON ROCHE, OF MEADVILLE, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO REMINGTON TYPEWRITER COMPANY, OF ILION, NEW YORK, A CORPORATION OF NEW YORK.

TYPE-WRITING MACHINE.

1,069,726. Specification of Letters Patent. Patented Aug. 12, 1913.

Application filed June 1, 1912. Serial No. 700,950.

To all whom it may concern:

Be it known that I, WILLIAM JANSON ROCHE, citizen of the United States, and resident of Meadville, in the county of Crawford and State of Pennsylvania, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

My invention relates to typewriting machines and more particularly to the paper holding and feeding devices.

My invention has for its principal object to provide an improved paper finger or holding construction for use in connection with small and irregularly shaped pieces of paper, such for example as labels.

Another object of the invention is to provide a feed roll capable of being set at different angles and of turning in any direction.

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 set forth herein and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a front elevation of the platen and platen frame and some of the other parts of the carriage of a Remington No. 10 typewriter having my invention applied thereto. Fig. 2 is a fore and aft vertical sectional view of the same taken on the line *x*—*x* of Fig. 1 and looking toward the right, as indicated by the arrows. Fig. 3 is an enlarged sectional view of one of the paper fingers taken on the line *y*—*y* of Fig. 1 and looking in the direction of the arrows at said line. Fig. 4 is a similar view of a modified form of paper finger.

My invention is applicable or adaptable generally to typewriting machines and other machines that write or print on a piece of paper, and is here shown applied to the platen and platen frame of a Remington No. 10 typewriter. Said typewriter comprises a carriage in which is mounted a shiftable platen frame comprising end plates 1 and transverse frame rods or bars 2 and 3. A roller platen 4 has its shaft 5 journaled in the end plates 1. The machine is provided with front strike type bars that strike against the front face of the roller 4. The platen frame has various devices mounted thereon, some of which are not shown in the present case, said devices including paper feed rollers, one of which is indicated in Fig. 2 at 6. The Remington machine also comprises a bracket 7 secured by screws 8 to the lower frame bar 3 and having arms 10 in which are journaled the inner ends of square shafts 11, the outer ends of said shafts being respectively journaled in the end plates 1 of the platen frame. These shafts are designed to carry paper fingers. They are co-axial, as shown, but space is left in the middle of the machine between the two shafts, part of which space is occupied by a feed roller 6. Outside of the end plate 1 each of the shafts 11 has mounted thereon a lever arm 12 having an arm or branch 13 extending upward and serving as a finger piece. A spring 14 connected to said arm 12 and to a pin 15 projecting from the platen frame, tends to rock the shaft 11 in such a direction as to press the paper against the platen. Motion of the shaft and paper finger is limited in both directions by a pin 16 projecting from the end plate 1 into a slot 17 in the arm 12.

The construction thus far described is substantially that of the Remington machine as at present constructed. In applying my invention to this machine I mount my improved paper feed devices on the shafts 11 in about the same way that the present Remington paper fingers are mounted. That is to say, each of my paper feed devices comprises an upright plate or arm 18 of sheet metal, preferably of spring steel, the lower part of said arm being widened out in right or left-hand direction and bent around the shaft 11, forming a sort of square sleeve 20 fitting loosely on the shaft and slidable along the shaft to adjust the paper finger transversely of the machine. For this latter purpose the sheet metal is formed with a forwardly projecting finger piece 21. The construction is such that by pulling forward on the handle 13, so as to relieve the paper finger of the spring pressure, said device slides very easily along the shaft but when said shaft is under spring pressure the friction is sufficient to retain the paper feed device against accidental displacement from adjusted position. The part 18 constitutes a support for an arm or paper finger proper

22 which is mounted on the arm 18 with means permitting of universal adjustment in the plane of said arm 18 and with relation to the platen. Said finger 22 is formed with an elongated slot 23 through which projects a shouldered and headed rievt or screw 24 secured to the support 18 and preferably, between the head of the screw 24 and the arm 22, there is a suitable friction device which is here shown as consisting of a cup spring 25 which is under sufficient compression to hold the arm 22 in whatever position it may be adjusted in, but leaving said arm free to be adjusted by hand when desired.

At one end of the arm or finger 22 there is inserted in said arm a ball 26, said ball being secured in position by a cover plate 27 secured to the arm 22 by a rivet 28. The ball may of course be secured in position in any other suitable manner. On the opposite end of the arm 22 from the ball 26 I prefer to make a handle 30 to assist in the adjustment of the arm.

I have here shown two paper fingers such as described and these two fingers are adapted to hold in position any small piece of paper, even though said piece of paper be of irregular outline. In the drawing I have indicated by full lines in Fig. 2 and by broken lines in Fig. 1 a label 31 of elliptical outline. It will be seen that to hold this particular label the arms 22 have been adjusted to extend toward each other approximately in a horizontal position substantially on a line parallel with the platen and so set that the balls 26 press against said label about on or a little above the writing line. It will be perceived that when a line has been written on the label and the platen has been line spaced, the next line to be written will be longer than the one when the label is in the position shown. It is the work of but an instant to re-adjust the paper fingers after line spacing so as to have the balls bear on the said label in whatever position will best hold the label against the platen and least interfere with the operation of the types. It will be seen that the fingers are adjustable lengthwise of the platen independently of their support 18, and that they are also adjustable angularly with relation to the line joining them. It will be understood that in the Remington machine there are at the front of the platen certain devices, including a line finder and pressure plate, which, for the sake of clearness, have been omitted from the drawing, but with which the paper fingers do not in any way interfere.

It will be seen that the balls 26 constitute feed rollers which are free to roll with the turning of the platen no matter at what angle the arms 22 are adjusted, said balls being mounted with freedom to roll in any direction.

Instead of having the balls 26, the paper fingers may be formed as shown in Fig. 4 where the finger 22′ is like the finger 22 in all respects except that in place of the ball 26 a projection 32 of spherical form has been stamped out of the metal of said finger or otherwise formed on or added to the finger.

It will be perceived that the fingers 22 are each capable of pivotal adjustment about the axis of the screw 24, which axis is at an angle to the axis of the platen and passes through said platen, and that said fingers can be adjusted not only transversely but also up and down the paper.

Various changes can be made in the details of construction and arrangement without departing from my invention.

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

1. In a typewriting machine, the combination with a roller platen, of a pivotally mounted paper finger extending approximately longitudinally of the platen and having an adjustment from one paper holding position to another consisting of a swinging motion over the surface of the platen about an axis that is at an angle to the axis of the platen.

2. In a typewriting machine, the combination with a platen, of a paper finger mounted for pivotal adjustment to different paper holding positions about an axis that passes constantly through said platen.

3. In a typewriting machine, the combination with a platen, of a paper feed device comprising a support spring pressed toward said platen, and a finger mounted on said support for universal adjustment relative to said platen.

4. In a typewriting machine, the combination with a platen, of a paper feed device comprising a support spring pressed toward said platen, and a finger having a part for contact with said platen or the paper thereon, said finger having a turning and sliding adjustment on said support by a pin and slot connection with said support.

5. In a typewriting machine, the combination with a platen, of a plurality of paper fingers for pressing a piece of paper against the platen above the writing line, and means for effecting an independent universal adjustment of each of said paper fingers so as to locate their contact points on the paper anywhere within the limits of their compound adjustment either in the same or in different horizontal planes as desired and also at different points on the paper lengthwise of the platen.

6. In a typewriting machine, the combination with a platen, of a paper feed device comprising a support adjustable right and left, and a finger mounted on said support for engagement with the paper and adjust-

able to different paper holding positions by a turning movement relative to said support and to said platen.

7. In a typewriting machine, the combination with a platen, of a paper feed device comprising a support adjustable right and left, and a finger mounted on said support for engagement with the paper and adjustable to different paper holding positions by turning and sliding movements on said support while said support remains stationary.

8. In a typewriting machine, the combination with a platen, of a paper feed roller capable of turning in any direction and a support for said roller capable of being set at different angles.

9. In a typewriting machine, the combination with a platen, of a paper feed roller consisting of a ball mounted for turning in any direction in accordance with the feed of or the pull upon the paper.

10. In a typewriting machine, the combination with a platen, of a paper finger adjustable to different angular positions and having a ball for contact with the paper, said ball being mounted for turning motion in any direction.

11. In a typewriting machine, the combination with a platen, of a paper finger adjustable both transversely and also up and down the paper and having the part thereof that contacts with the paper of spherical form.

12. In a typewriting machine, the combination with a platen, of a pair of paper fingers, one on each side of the printing point, mounted on supports to extend toward each other substantially in a line parallel with the platen, said fingers being adjustable lengthwise of the platen independently of their supports.

13. In a typewriting machine, the combination with a platen, of a pair of paper fingers, one on each side of the printing point, mounted to extend toward each other substantially in a line parallel with the platen, and also mounted for angular adjustment with relation to said line.

14. In a typewriting machine, the combination with a platen, of a paper finger adjustable lengthwise of the platen and also pivotally mounted in front of the platen for adjustment by a swinging motion crosswise of the platen to different paper holding positions.

Signed at Meadville, in the county of Crawford, and State of Pennsylvania this twenty-eighth day of May, A. D. 1912.

WILLIAM JANSON ROCHE.

Witnesses:
W. E. HOSLER,
WALTER J. SKEELS.

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