J. E. SIMPSON.

TYPE WRITING MACHINE.

APPLICATION FILED JULY 19, 1917.

1,262,856. Patented Apr. 16, 1918.

Fig. 1.

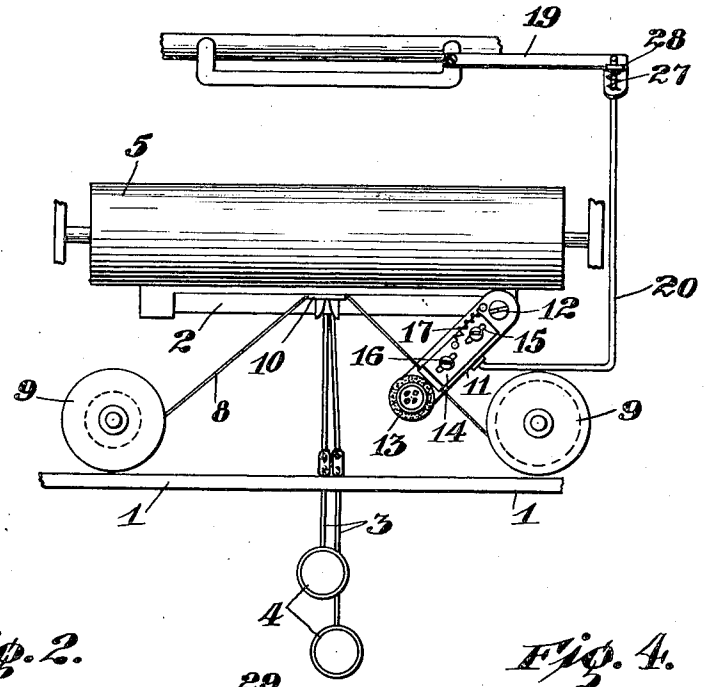


Fig. 2.

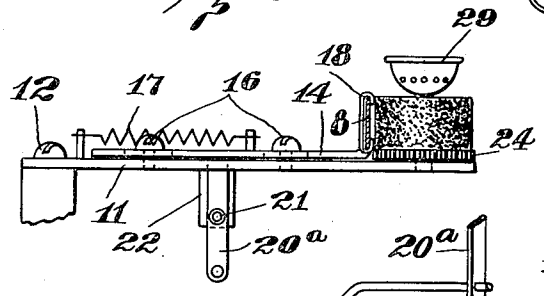


Fig. 4.

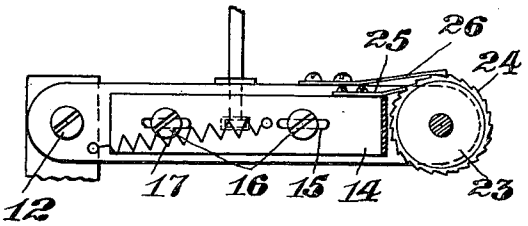
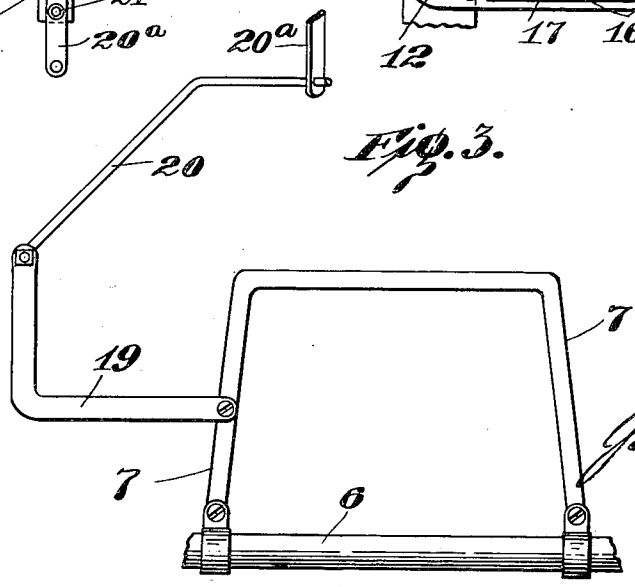


Fig. 3.



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TYPE-WRITING MACHINE.

1,262,856. Specification of Letters Patent. Patented Apr. 16, 1918.

Application filed July 19, 1917. Serial No. 181,486.

To all whom it may concern:

Be it known that I, JAMES E. SIMPSON, a citizen of the United States, and resident of borough of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to typewriting machines, and it comprises certain novel means, based upon my application Serial No. 172926, filed June 5, 1917, whereby an inking ribbon may be supplied with ink during the operation of the machine.

My present improvement comprehends the employment of a revoluble inking roller, mounted in a fixed position near the ribbon; which latter is intermittently moved into and out of contact with said roller by a slidable member, that is normally spring held in retracted position. The slidable member is actuated from a moving part of the machine through interconnecting means; and means, operating in conjunction with said sliding member, serve to rotate said inking roller.

Other features and advantages of my said invention will hereinafter appear.

In the drawing:—

Figure 1 is a plan view showing portions of a typewriting machine, including my improvement.

Fig. 2 is a vertical view of the ink roller and ribbon actuating mechanism.

Fig. 3 is a vertical rear view showing the connection between the escapement mechanism and slidable member, to actuate the latter, and

Fig. 4 is a plan view of Fig. 2.

As an example of a method of carrying out my invention I have shown it applied to an Underwood typewriting machine, wherein 1 indicates the machine frame; 2 the U-shaped frame for the type bars, 3 the key-levers having keys 4, 5 the platen, and 6 the escapement rock shaft carrying yoke 7.

The inking ribbon 8 is shown as extending between the spools 9 and held at the printing point by guide 10.

A mount 11 is secured as by a screw 12 upon frame 2, said mount extending forwardly, beneath the ribbon, and having revolubly secured thereon a pad or roller 13, whose peripheral surface lies in opposed, non-contacting relation to the outer surface of ribbon 8. A slide 14, having slots 15, is imposed upon mount 11, which has studs 16 engaging said slots, whereby the movement of the slide may be limited and guided. Tensional means, as a spring 17, engaging the mount 11 and slide 14, serves to hold said slide normally retracted, so that the ribbon, which feeds through a guide frame 18 carried by slide 14, is thereby held out of contact with roller 13.

The ribbon is moved against the roller 13 to receive ink by means which cause the shifting of slide 14 against the tension of spring 17, and which may communicate the motion of the escapement mechanism to said slide. In the example illustrated I have attached a bracket 19 to the yoke 7, a rod 20 extending forwardly from said bracket, and engaging, at its forward end, as with an arm 20^a depending from slide 14, said arm being pivoted, as at 21, to a bracket 22 carried by the mount 11. By these means the slide 14 is impelled forwardly, to bring the ribbon into contact with roller 13 with each forward rock movement of yoke 7; being returned, after each such movement, by the action of spring 17; thus establishing reciprocating motion for slide 14 in the operation of the finger keys.

The roller 13 may be provided with a wheel or disk 23 having peripheral teeth 24, for engagement by a pawl 25 carried by slide 14; whereby, in the forward movements of said slide the roller 13 has partial revolutions imparted thereto, so that the said roller is positively turned and caused to present successive portions of peripheral inking surface to the advancing ribbon. A spring finger 26, carried by the mount 11, may bear against the teeth 24 to limit the turning motion of roller 13.

A coiled spring 27 may be secured to and interposed between the bracket 19 and a nut 28 at the rear end of rod 20, said spring comprising a cushion which will absorb the shocks that would otherwise be transmitted to the slide 14 in its intermittent impulses.

Fluid ink may be supplied to the roller 13, which is composed of absorbent material, as by a cup or reservoir 29, mounted on the upper surface of the roller, and having means of communication with said roller.

Variations may be resorted to within the spirit and scope of my invention, and parts thereof used without others.

I claim:—

1. In a typewriting machine having a ribbon movable across the printing point,

the combination of a revoluble inking pad, means for supporting said pad in proximity to said ribbon, and means, actuated by a moving part of said machine, to intermittently move said ribbon into contact with said pad.

2. In a typewriting machine having finger keys, and a ribbon movable across the printing point, the combination of a revoluble inking pad, means for supporting said pad in proximity to said ribbon, and means, actuated by said finger keys, to intermittently move said ribbon into contact with said pad.

3. In a typewriting machine having finger keys, and a ribbon movable across the printing point, the combination of a revoluble inking pad, a fixed support therefor, slidable means engaging said ribbon to hold the latter normally out of contact with said pad, and means, actuated by said finger keys, to intermittently shift said slidable means and thereby carry said ribbon into contact with said pad.

4. In a typewriting machine having finger keys, and a ribbon movable across the printing point, the combination of a revoluble inking pad, a fixed support therefor, slidable engaging means for said ribbon, a spring to hold said slidable means normally retracted with said ribbon in non-contacting relation with said pad, and means, actuated by said finger keys, to intermittently shift said slidable means and thereby carry said ribbon into contact with said pad.

5. In a typewriting machine having finger keys, and a ribbon movable across the printing point, the combination of a revoluble inking pad, a fixed support therefor, a ribbon engaging slide upon said support, guide means therefor, and means, actuated by said finger keys, to intermittently shift said slidable means and thereby carry said ribbon into contact with said pad.

6. In a typewriting machine having finger keys, and a ribbon movable across the printing point, the combination of a revoluble inking pad, a fixed support therefor, slidable means engaging said ribbon to hold the latter normally out of contact with said pad, means, actuated by said finger keys, to intermittently shift said slidable means and thereby carry said ribbon into contact with said pad, and means, carried by said slidable means, to intermittently revolve said pad.

Signed at borough of Brooklyn in the county of Kings and State of New York this 17th day of July, A. D. 1917.

JAMES E. SIMPSON.

Witnesses:
J. KENNY,
J. U. LAMOREAUX.