(No Model.)

A. T. BROWN.

TYPE WRITING MACHINE.

No. 445,350. Patented Jan. 27, 1891.

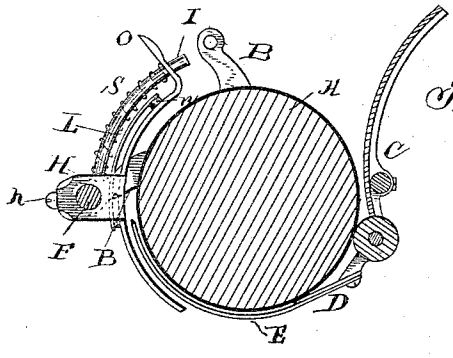

Fig. 1.

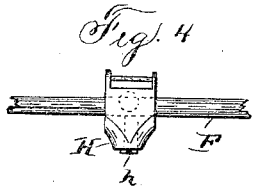

Fig. 4

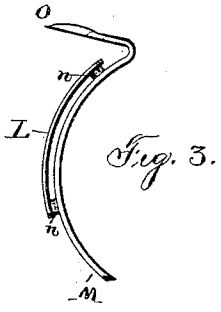

Fig. 3.

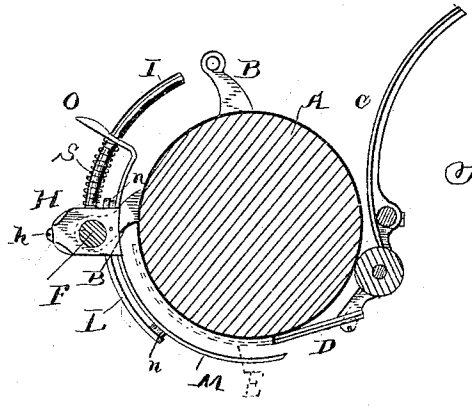

Fig. 2.

Witnesses
C. W. Johnson.
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALEXANDER T. BROWN, OF SYRACUSE, NEW YORK.

TYPE-WRITING MACHINE.

SPECIFICATION forming part of Letters Patent No. 445,350, dated January 27, 1891.

Application filed September 25, 1890. Serial No. 366,136. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER T. BROWN, residing at Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Type-Writing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to the paper-guides of type-writing machines.

The object of the invention is to produce an improved device for guiding the sheet or sheets of paper around the roller or platen in applying paper to said roller or platen, so called.

Figure 1 is a cross-section of the paper-roll of a type-writing machine, showing the apron attached to the cradle of said roll, one of the paper-clamps, and my improved paper-guide finger in retracted position. Fig. 2 is a similar view with clamp omitted, showing the guide-finger extended; Fig. 3, a side view of finger, and Fig. 4 a plan of block and part of its supporting-rod.

A indicates the roller; B, a part of the cradle; C, the apron, which is arranged as usual with reference to the roll. The lower edge D of the apron is preferably a spring-clamp for the paper. A metallic strip E may clasp the edge of the paper. A rod F extends from end to end of the roller or carriage and in front of the roll, as usual in type-writing machines. A perforated block H is carried by rod F, and may be held in adjusted position on the rod by a set-screw *h*, or may be permanently fixed about midway of the rod and keyed or splined so as not to rotate on the bar. The block H has a horn or upward extension I, which extension is curved along a line concentric with the roll A. The horn or extension I may be integral with block H or may be a separate piece firmly secured to the block. The block H is perforated or slotted in a curved direction concentric with the roll, and in this slot the curved bar L of the finger M has a sliding bearing. The upper end of finger M is turned out, and the outwardly-turned arm O surrounds the horn I and serves both as a support and an operating-handle for the finger. A spiral spring S surrounds the horn I between the block H and the arm O of the finger and serves to retract the finger from its extended position. The bars L and M are connected by studs *n n*, which act as stops to the movement of the finger. As shown in Fig. 1, the finger M is retracted or drawn back, so that it does not cross the bottom of the roller where the type are to strike. In applying a sheet of paper to the roller the paper is liable to bulge in the middle, and thus annoy and delay the operator. To avoid this the finger M is extended or moved in the direction of the circumference of the roller and in a curve concentric with the surface of the roller. This carries the lower end of the finger across the open space under the roller where the printing characters usually strike, forming a bridge across said space and serving to guide the paper across the same and around the roller. The finger, when in operative position, may extend as far as the front edge of the apron-clamp D, or beyond the same. Said clamp D is preferably thrown a little away from the roller in applying the paper in manner well known in this art. As soon as the finger M is released it will be pressed back by the spring S. As the distance from the surface of the roll A to the inner face of finger M is the same on any radial line and in any position of the finger, the finger forms a convenient and accurate guide for the edge of the paper around the roll, and as the finger moves in a curve concentric with the surface of the roll it may be moved to any distance in its circular path without clamping the paper. The face of the finger toward the roll extends at least as far as the inner surface of the block H to afford a smooth guide-surface for the edge of the sheet.

It will be understood that the connection of the curved finger M to its support may be made in other manner than by means of the parallel bar L. I have used this construction and find it excellent; but other equivalent constructions may be adopted.

What I claim is—

1. The combination, with the paper-roll or cylindrical platen of a type-writing machine, of a rod parallel therewith and a curved finger carried by said rod about centrally of the cylindrical platen and movable in the direction of the circumference of the roll and concentric therewith, substantially as described.

2. The combination, with the paper-roll of

a type-writing machine, of a rod parallel therewith, a grooved block on said rod, and a curved finger supported in the groove in the block and movable circumferentially of the roll and parallel with the surface thereof, substantially as described.

3. The combination, with the roller of a type-writing machine, of a rod parallel therewith, a block on the rod, a curved finger mounted in sliding bearings in said block and moving circumferentially in the direction of the circumference of the roll and parallel with the periphery thereof, and a spring bearing on said finger to retract the same, substantially as described.

4. The paper-roll, the rod parallel therewith and having a curved horn, a curved finger having bearings in the block and on the horn, and a spring surrounding the curved horn and bearing against the curved fingers, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ALEXANDER T. BROWN.

Witnesses:
WILBERT L. SMITH,
LORAIN H. CURTIS.