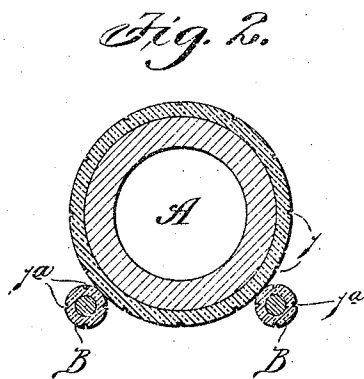
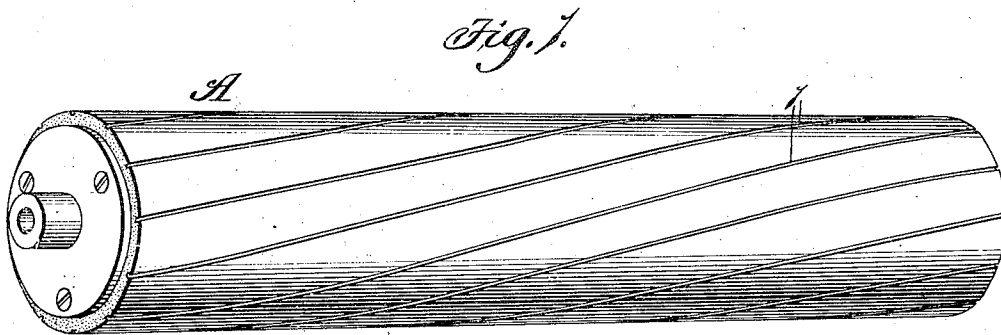


W. A. THOMPSON.
TYPE WRITING MACHINE.
APPLICATION FILED APR. 21, 1916.

1,200,779.

Patented Oct. 10, 1916.



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UNITED STATES PATENT OFFICE.

WILLIAM A. THOMPSON, OF BELLEVILLE, ILLINOIS.

TYPE-WRITING MACHINE.

1,200,779.

Specification of Letters Patent.

Patented Oct. 10, 1916.

Application filed April 21, 1916. Serial No. 92,702.

To all whom it may concern:

Be it known that I, WILLIAM A. THOMPSON, a citizen of the United States, residing at Belleville, Illinois, have invented a certain new and useful Improvement in Type-Writing Machines, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to typewriting machines.

The platen that is now universally used on typewriting machines consists of a cylindrical-shaped member that forms part of the paper-feeding mechanism of the machine and also acts as a support or backing for the paper against which the type strike during the printing operation. The feed rolls that cooperate with the platen to feed the paper are also smooth-faced members. After the machine has been in use for some time, the outer surfaces of the platen and the feed rolls become so smooth and glossy that they frequently fail to feed the paper accurately when the machine is in use, and consequently, it is necessary to renew the platen, or the feed rolls quite often, in order to keep the machine in proper working condition. Furthermore, a new platen and new feed rolls sometimes fail to feed the paper accurately when a plurality of sheets of paper with sheets of carbon interposed between same are being used in the machine, on account of the tendency of the under sheet, which is usually very thin, to slip on the smooth outer surfaces of the platen and feed rolls.

The main object of my invention is to provide a typewriting machine which is so constructed that there is little liability of the paper slipping relatively to the means that feeds same through the machine. And another object is to provide a platen for typewriting machines that will feed the paper accurately, even after the platen has become old and worn and which is so designed that it will not blur the impression of the type on the paper.

Figure 1 of the drawings is a perspective view of a platen for typewriting machines constructed in accordance with my invention; and Fig. 2 is a cross-sectional view of the platen and the paper feed rolls that cooperate with the platen.

Referring to the drawings which illustrate the preferred form of my invention, A

designates a platen for typewriting machines which consists of a cylindrical-shaped member having an outer surface formed of some suitable material such as the material now used to form the outer surface of a platen for typewriting machines. The outer surface of the platen, or the portion of the platen on which the paper bears, is provided with a plurality of relatively shallow and narrow grooves 1 that extend longitudinally of the platen and which are arranged at such an angle with relation to the longitudinal axis of the platen that they will not be in horizontal alinement with the lines of printing on the sheet of paper being printed in the machine. In the preferred form of my invention, as herein shown, the grooves 1 extend in a substantially spiral direction, or, in other words, each of the grooves 1 forms part of a helix. It is immaterial, so far as my broad idea is concerned, how many grooves 1 the platen is provided with, and the length of said grooves and the angle that they are arranged with relation to the longitudinal axis of the platen is also immaterial. The grooves 1 may be molded in the outer surface of the platen during the operation of forming said outer surface, or they may be cut or pressed in the outer surface of a new platen or an old platen. The grooves 1 are so narrow and shallow that even when they extend the entire length of the platen, as herein shown, they do not detract from the efficiency of the platen as a striking surface for the type, and as they extend longitudinally of the platen at an angle to the longitudinal axis of the platen, the type will never strike on one of the grooves continuously during the operation of printing a single line on the sheet. As previously intimated, however, it is not essential to the successful operation of my invention that the grooves extend the entire length of the platen. If desired, the paper feed rolls B that are arranged on the underside of the platen may be provided with grooves 1^a similar to the grooves 1 on the platen A, and the platen may either be provided with a smooth surface or with grooves, as shown in Fig. 1.

With a typewriting machine of the construction above described the outer surface of the platen may become smooth and glossy without liability of causing the paper to be fed inaccurately, owing to the fact that the fine grooves in the platen or in the under

feed rolls, or in both the platen and the feed rolls, increase the frictional contact between the paper and the means that feeds same, and thus prevent the paper from slipping while it is being fed through the machine.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is:

1. A platen for typewriting machines, consisting of a cylindrical shaped member having a smooth outer surface equipped with a plurality of grooves that extend in a direction substantially longitudinally of said member so as to prevent the paper from slipping relatively to the platen when the platen is turned during the operation of feeding the paper through the machine on which the platen is used, said grooves being narrow and shallow enough so that they will not blur the impression of the type on the paper.

2. A platen for typewriting machines consisting of a cylindrical-shaped member having a smooth, non-metallic outer surface in which a plurality of fine grooves are formed, said grooves extending longitudinally of said member at an angle to the axis thereof and being narrow and shallow enough so that they will not blur the impression of the type that strike against the paper supported by the platen.

3. A platen for typewriting machines, consisting of a cylindrical-shaped member having a non-metallic outer surface equipped

with a plurality of substantially spirally-disposed grooves for the purpose described, said grooves being narrow and shallow enough so that they will not interfere with the printing operation of the machine in which the platen is used.

4. A typewriting machine provided with a platen and with paper feed rolls, both of which have smooth outer surfaces provided with relatively narrow and shallow grooves that extend in a direction substantially longitudinally of said members so as to assist in the operation of feeding a sheet of paper through the machine, said grooves being of such cross-sectional dimensions that the type of the machine can strike the platen at any point without causing the impression of the type on the paper, to be blurred.

5. A typewriting machine, comprising a cylindrical-shaped platen provided with a non-metallic outer surface equipped with relatively fine and narrow grooves that extend spirally around the platen, and feed rolls arranged below the platen and provided with smooth outer surfaces equipped with spirally-disposed narrow and shallow grooves.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 15th day of April, 1916.

WILLIAM A. THOMPSON.

Witnesses:

F. B. SMILEY,

WALTER F. L. RHEIN.