

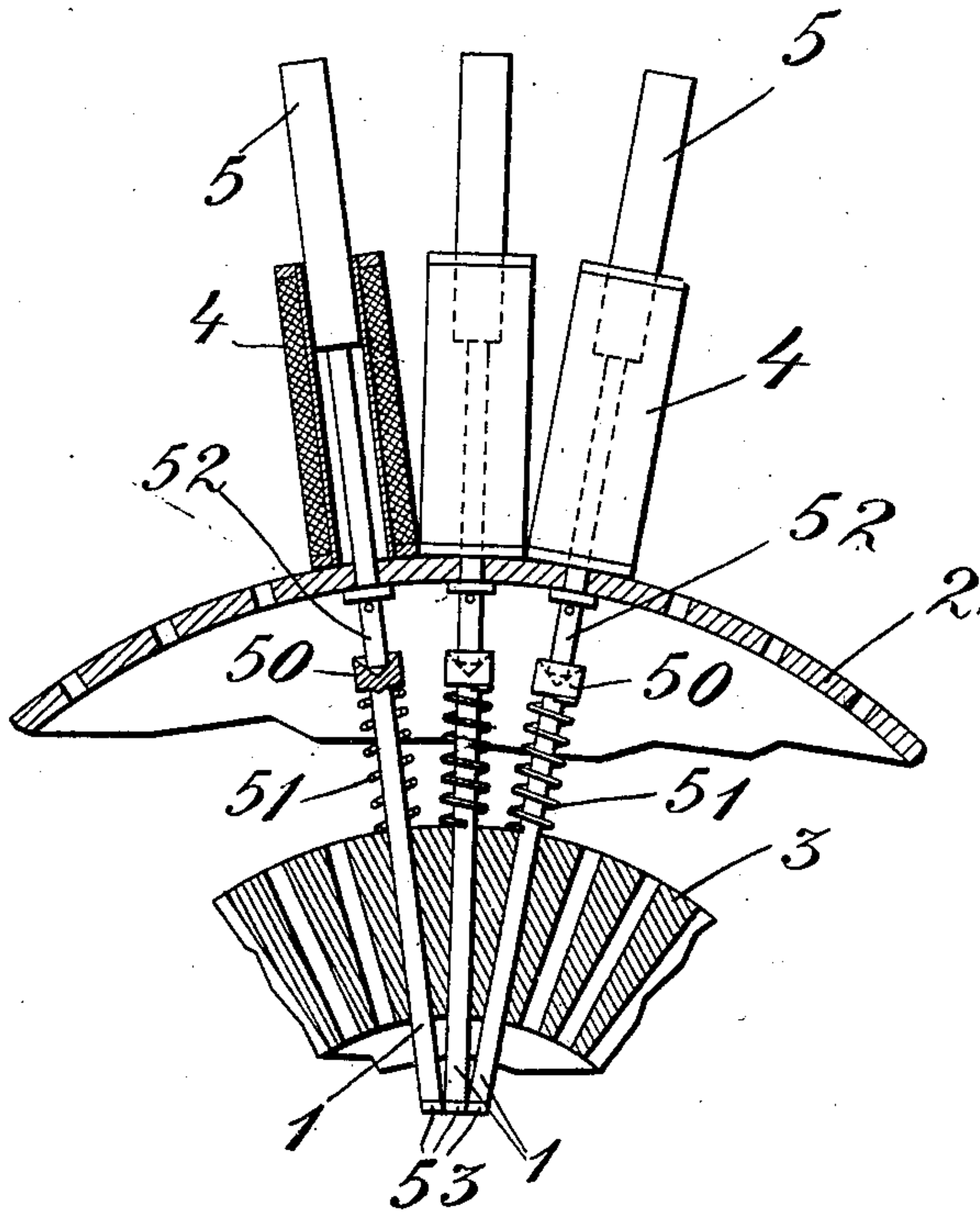
No. 680,321.

Patented Aug. 13, 1901.

W. FABER.
CARRIAGE FOR TYPE WRITERS.

(Application filed Mar. 6, 1901.)

(No Model.)



WITNESSES:
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WILHELM FABER, OF BERLIN-WESTEND, GERMANY.

CARRIAGE FOR TYPE-WRITERS.

SPECIFICATION forming part of Letters Patent No. 680,321, dated August 13, 1901.

Application filed March 6, 1901. Serial No. 50,056. (No model.)

To all whom it may concern:

Be it known that I, WILHELM FABER, pastor, a subject of the King of Prussia, Emperor of Germany, residing in Kirschenallee 12, Berlin-Westend, Germany, have invented certain new and useful Improvements in Electric Printing-Machines, of which the following is a specification.

The present invention relates to improvements in electric printing-machines as set forth in my application for Letters Patent, Serial No. 39,475, of September 11, 1900. The type-bars there described are formed in one piece and operated directly by means of bobbins. In consequence of such arrangement, however, it is unavoidable that each time a type through continued use becomes worn and has to be replaced by a new one the whole type-bar must be removed. This involves relatively considerable expense and also causes much inconvenience. A further difficulty with the machine referred to consists in the adjustment of the upper cap carrying the bobbins relatively to the lower cap, serving principally as guide for the type-bars. All these defects are overcome by means of my new printing-machine forming the subject of the present application.

My new invention is illustrated by the accompanying drawing, in which the figure shows type-bars, bobbins, and cooperating parts partly in elevation and partly in vertical section.

In this new machine the type-bars 1 do not pass through the calotte 2 and bobbins 4, but terminate just above the dome-guide 3, where they are provided with heads 50, forming abutments for spiral springs 51, which replace the spiral springs 6 of the machine described in my prior application referred to. The type-bars proper, 1, are thus rendered extremely short, and the heads 50 are slightly hollowed for the purpose of receiving the lower ends of special pressing-bars 52. The upper ends of the latter project into the bobbins 4 and are provided with the core-pieces 5, similar to those which in the machine forming the subject of my previous application referred to were located directly on the upper ends of the type-bars 1.

My new construction of the machine oper-

ates in all essentials quite the same as that described in my prior application, with the difference only that on an electric current flowing through the bobbin-coils 4 the cores 5 first operate the bars 52 directly, pulling them down, these latter then operating so as to depress the bars 1 against the force of the springs 51—i. e., the bars 52 operate upon the type-bars 1 with hammer action. If now a worn-out type 53 is to be replaced by a new one, it is merely necessary to withdraw from below the guide 3 the short bar 1 of the type in question. This can be readily done after removing the bar-head 50, which is screwed or otherwise fastened, with capability of easy removal, to its bar.

The adjustment of the calotte 2 relatively to the dome-guide 3 need not be so exact as was necessary with my former machine referred to. For even though the bobbins 4 should not be perfectly coaxial with the bars 1 the latter still have free play in their guide 3 and are certain of being struck by the descending bars 52, which is quite sufficient to insure printing by the type of the bar 1 which is struck.

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

In an electric printing-machine, a printing device comprising spring type-bars radiating from a central point, a guide-piece for said type-bars, hollowed heads secured to the upper ends of said type-bars, pressing-bars arranged coaxially above said type-bars, a spherical calotte the center of which is the point of contact of a type and the printing-surface, located over said type-bars and guiding said pressing-bars, and bobbins supported by said calotte and receiving said pressing-bars, in such manner that on a current passing through said bobbins the pressing-bars are temporarily drawn down, depressing said type-bars, all substantially as described.

Signed at Berlin this 20th day of February, 1901.

WILHELM FABER.

Witnesses:

WOLDEMAR HAUPT,
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