

J. C. McLAUGHLIN.  
TYPE WRITING MACHINE.  
APPLICATION FILED JAN. 7, 1909.

947,417.

Patented Jan. 25, 1910.

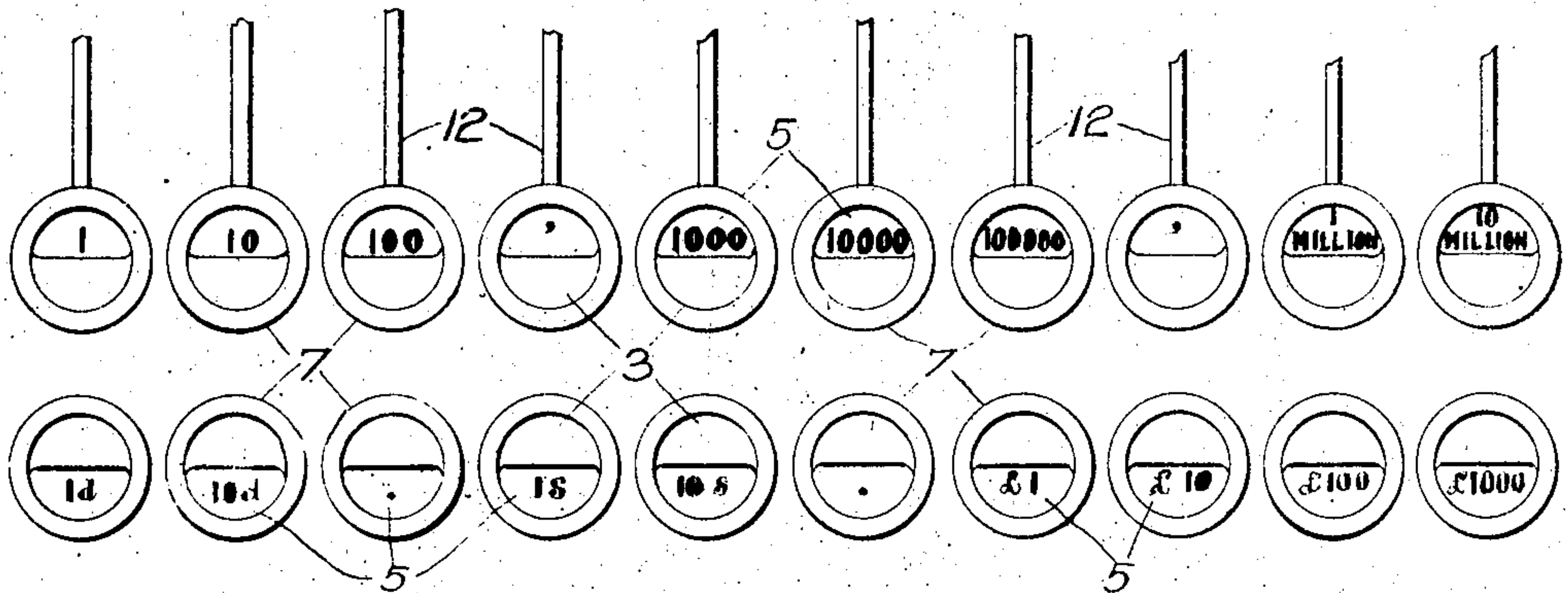


FIG. 1.

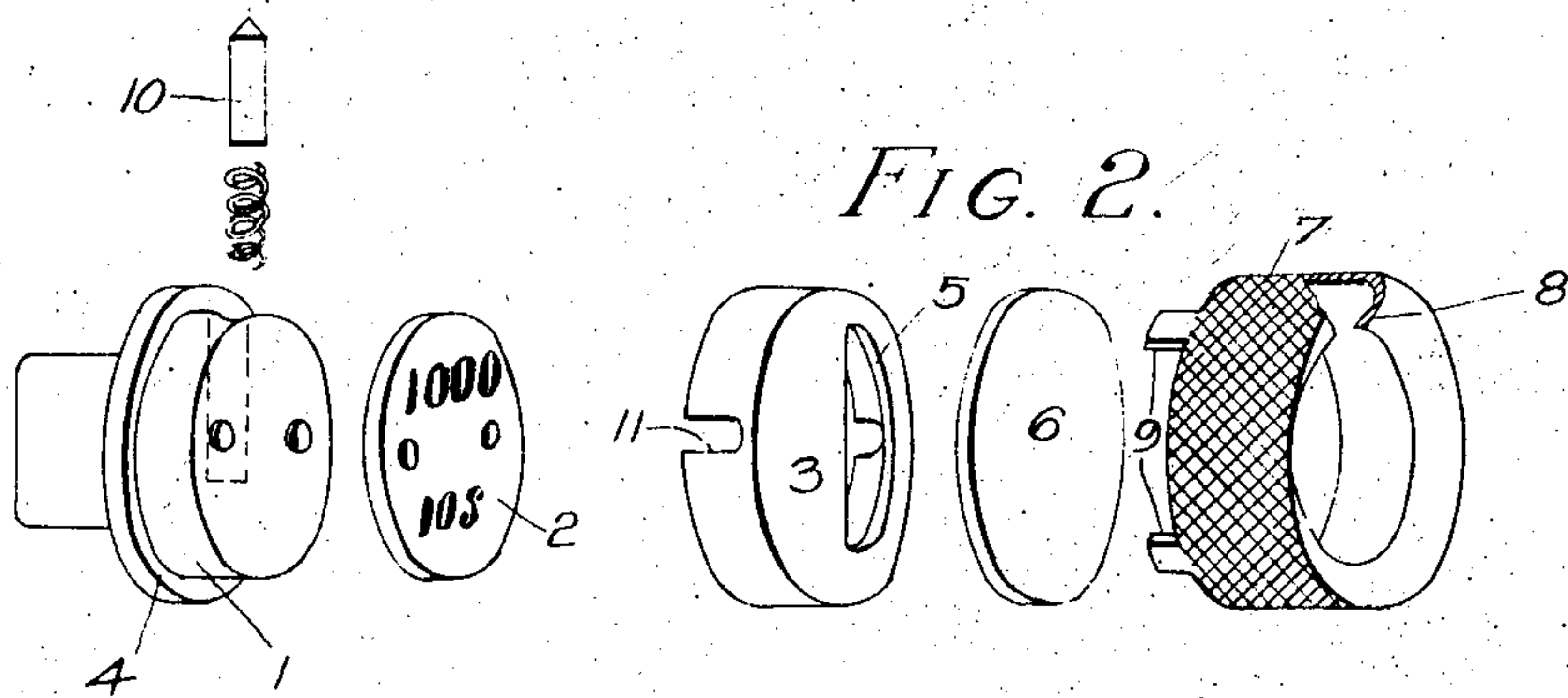


FIG. 2.

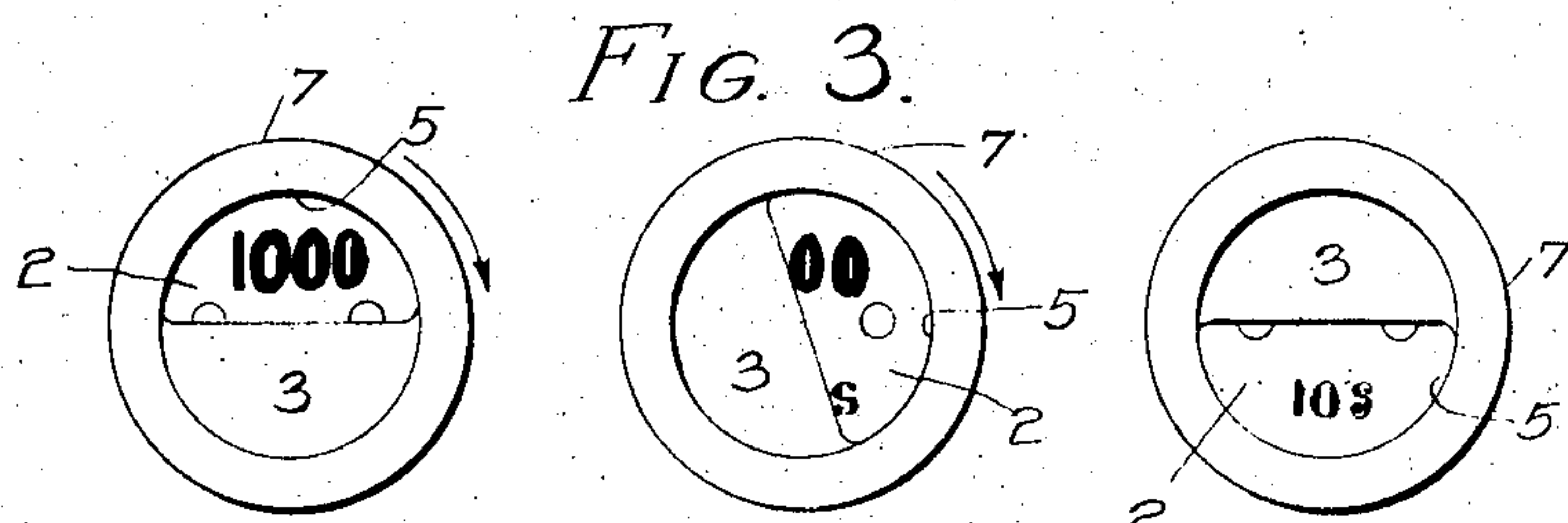


FIG. 3.

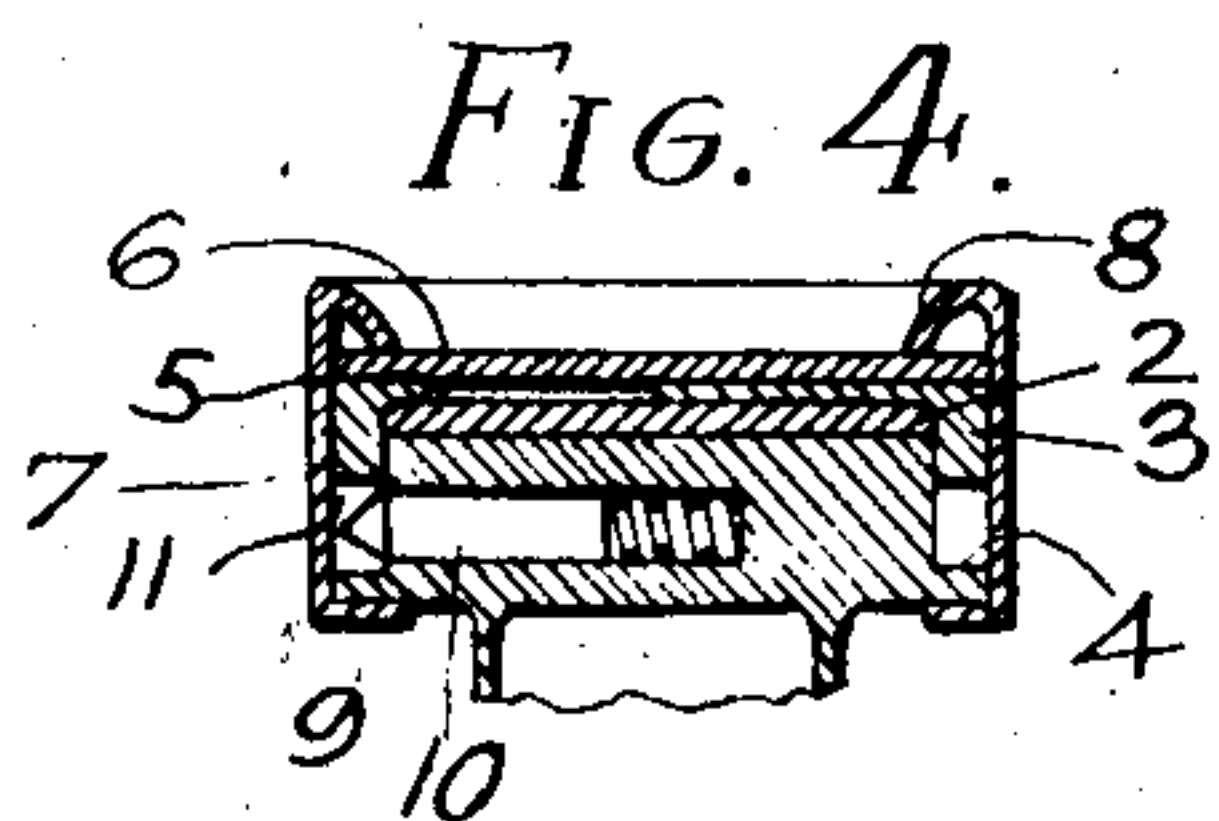


FIG. 4.

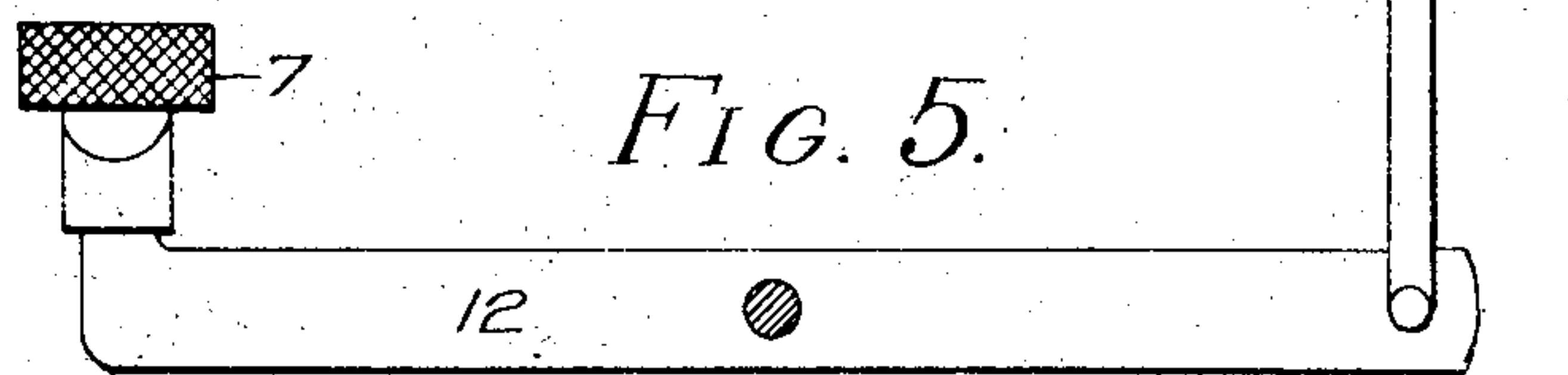


FIG. 5.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN C. McLAUGHLIN, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO UNDERWOOD TYPEWRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

TYPE-WRITING MACHINE.

947,417.

Specification of Letters Patent. Patented Jan. 25, 1910.

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*To all whom it may concern:*

Be it known that I, JOHN C. McLAUGHLIN, a citizen of the United States, residing in Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Type-Writing Machines, of which the following is a specification.

This invention relates to a system of changeable denomination keys of tabulating mechanisms of typewriting and other instruments, disclosed in my applications Nos. 401,197, filed November 8, 1907 and 456,720, filed October 8, 1908. In said applications the denomination keys of the tabulating mechanism are ten in number, the first four being of ordinary construction, and the other keys being provided with changeable designations, so that they serve for denominational work up to millions, with punctuation or dividing marks; and the capacity of the mechanism may be increased to hundreds of millions by re-adjusting the changeable keys, to omit the punctuation marks.

The object of the present invention is to provide a system of denomination keys, serviceable not only for ordinary notation, but also for special notation.

I provide all of the ten keys with changeable designations, one set of designations to serve for ordinary denominations up to ten millions, with punctuation marks between the hundreds and thousands, and also between the hundreds of thousands and millions; and the other set of designations serving for special notation, to indicate measures or the like, as for instance, pounds, shillings and pence, with intervening divisor keys, according to the British monetary system.

In the accompanying drawings, Figure 1 is a diagrammatic plan of a set of changeable denomination keys. In the first row of said figure the keys are adjusted for ordinary notation, with punctuation marks as aforesaid. In the second row the same keys are adjusted according to the British monetary system up to one thousand pounds, with punctuation marks between the pence and shillings, and also between the shillings and pounds. Fig. 2 is a perspective view of the component parts of the key. Fig. 3 is a diagrammatic plan view illustrating different

stages in the rotation of the shutter for changing from one set of designations to another set. Fig. 4 is a sectional side elevation of the key; and Fig. 5 is a diagrammatic elevation of the tabulator mechanism showing the key connected to a denomination stop.

In the drawings I have illustrated the changeable key of the same construction as in my application No. 456,720 above referred to, comprising a body or seat 1, and a character bearing disk 2, having two sets of characters or designations, secured thereon. A shutter 3 in the form of an annular casing is mounted to turn upon the seat 1, and rests upon a flange 4, said shutter having an opening 5. A transparent disk 6 rests upon the shutter, and a knurled cap 7 surrounds the shutter and rotates therewith, so that the shutter may be adjusted to exhibit either one of the sets of designations on the character-disk 2.

The disk 6 is confined between the shutter and a flange 8 provided upon the cap. The cap is also provided with nibs 9 to catch under the seat 1 to retain the cap in place. The shutter is retained in either of its adjusted positions by means of a spring detent, 10 engaging with a recess 11 in the shutter. The key 1 is carried upon the usual lever 12, connected to a rod 13 provided with a denomination stop 14 at its upper end, to engage with a column stop 15 carried upon the usual carriage.

At Fig. 1, I have shown a set of denomination keys all of which have changeable designations thereon. In the upper row of said figure the keys have been adjusted to exhibit the set of designations upon the upper half of the character disk, comprising plain numbers, to serve for ordinary denominational work up to ten millions, with punctuation marks between the hundreds and thousands and also between the hundreds of thousands and millions. By giving each shutter 3 a half revolution the designations upon the lower half of the character-disk are exhibited. I have shown these lower designations for the notation of pounds, shillings and pence, with divisor keys between the pounds and shillings, and also between the shillings and pence, according to the British monetary system, to wit: "1d 10d."



1s. 10s. £1 £10 £100 £1000." The keys may however be employed for other measures or special notation.

Having thus described my invention, I claim:

1. In a tabulating mechanism, the combination with a system of unchanging denominational stops, of a system of keys connected to said stops, the keys having changeable designations thereon, one set of designations being regular to serve for ordinary notation and the other set of designations being irregular to serve for special notation to correspond to an irregular measuring system.

2. In a tabulating mechanism, the combination with a system of unchanging denominational stops, of a system of keys connected to said stops, the keys having changeable designations thereon, one set of designations serving for ordinary notation, and the other set of designations serving for notation of pounds, shillings and pence, with intervening divisor keys, according to the British monetary system, substantially as described.

3. In a tabulating mechanism, a system of changeable tabulator keys having two sets of characters, one set for denominational work up to ten millions, with punctuation marks between the hundreds and thousands and between the hundreds of thousands and millions, and the other set for the British monetary

system up to one thousand pounds, with punctuation marks between the pence and shillings, and also between the shillings and pounds.

4. In a tabulating mechanism, the combination with a set of ten unchangeable denominational stops, of a set of changeable tabulator keys connected to said stops and provided with two sets of characters, one set to serve for denominational work up to ten millions, with punctuation marks between the hundreds and thousands, and also between the hundreds of thousands and millions, and the other set to serve for the British monetary system up to one thousand pounds, with punctuation marks between the pence and shillings, and also between the shillings and pounds.

5. In a tabulating mechanism, the combination with a system of unchanging denominational stops, of a system of keys connected to said stops, the keys having changeable designations thereon, one set of designations serving for ordinary notation with punctuation marks or the like between the groups of denominations, three figures in each group, and the other set of designations divided into irregular groups separated by punctuation marks or the like.

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Witnesses:

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