

No. 751,728.

PATENTED FEB. 9, 1904.

M. GUETT.
ROTARY SNAP ELECTRIC SWITCH.
APPLICATION FILED SEPT. 23, 1903.

NO MODEL.

Fig. 1

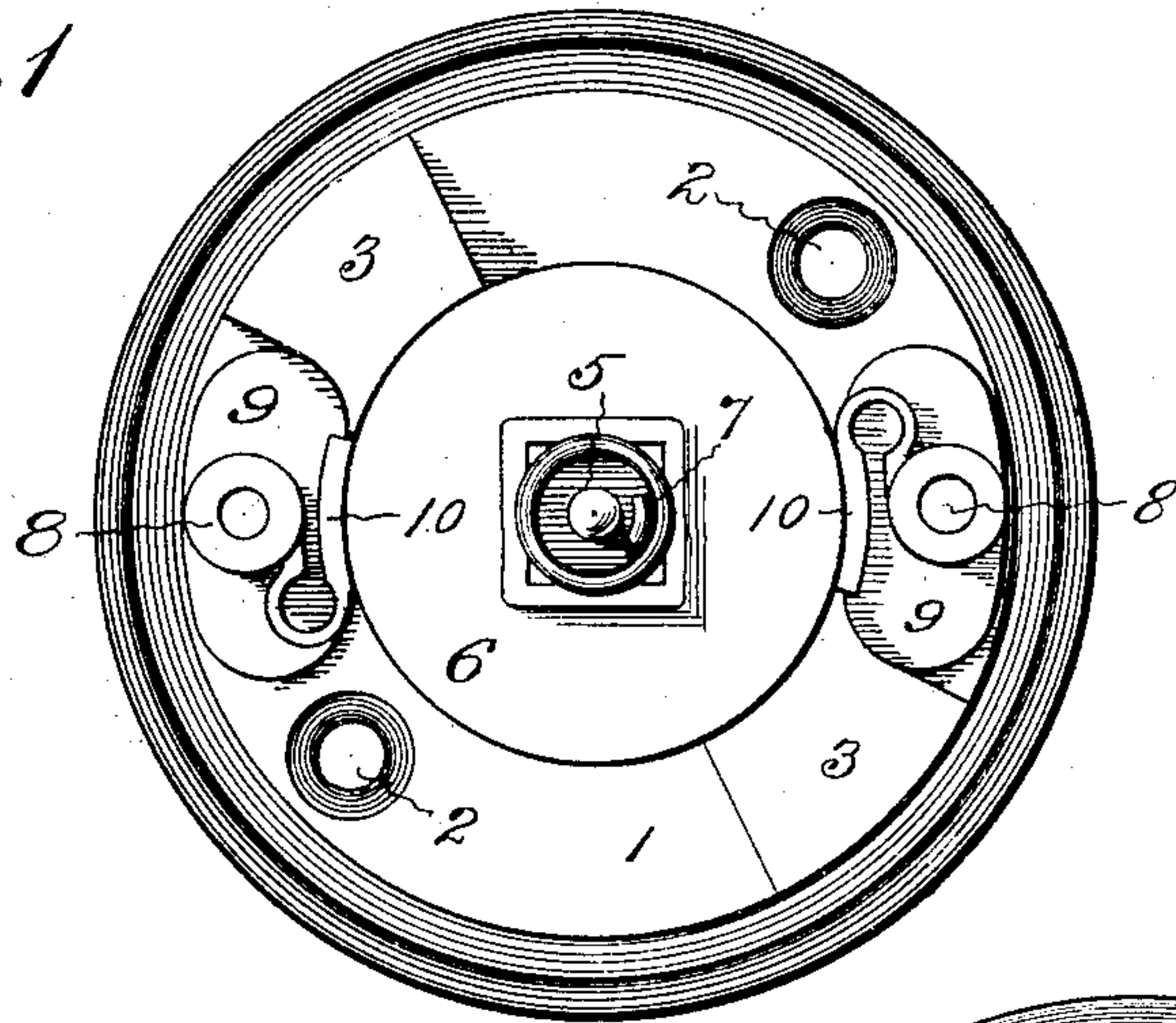


Fig. 2

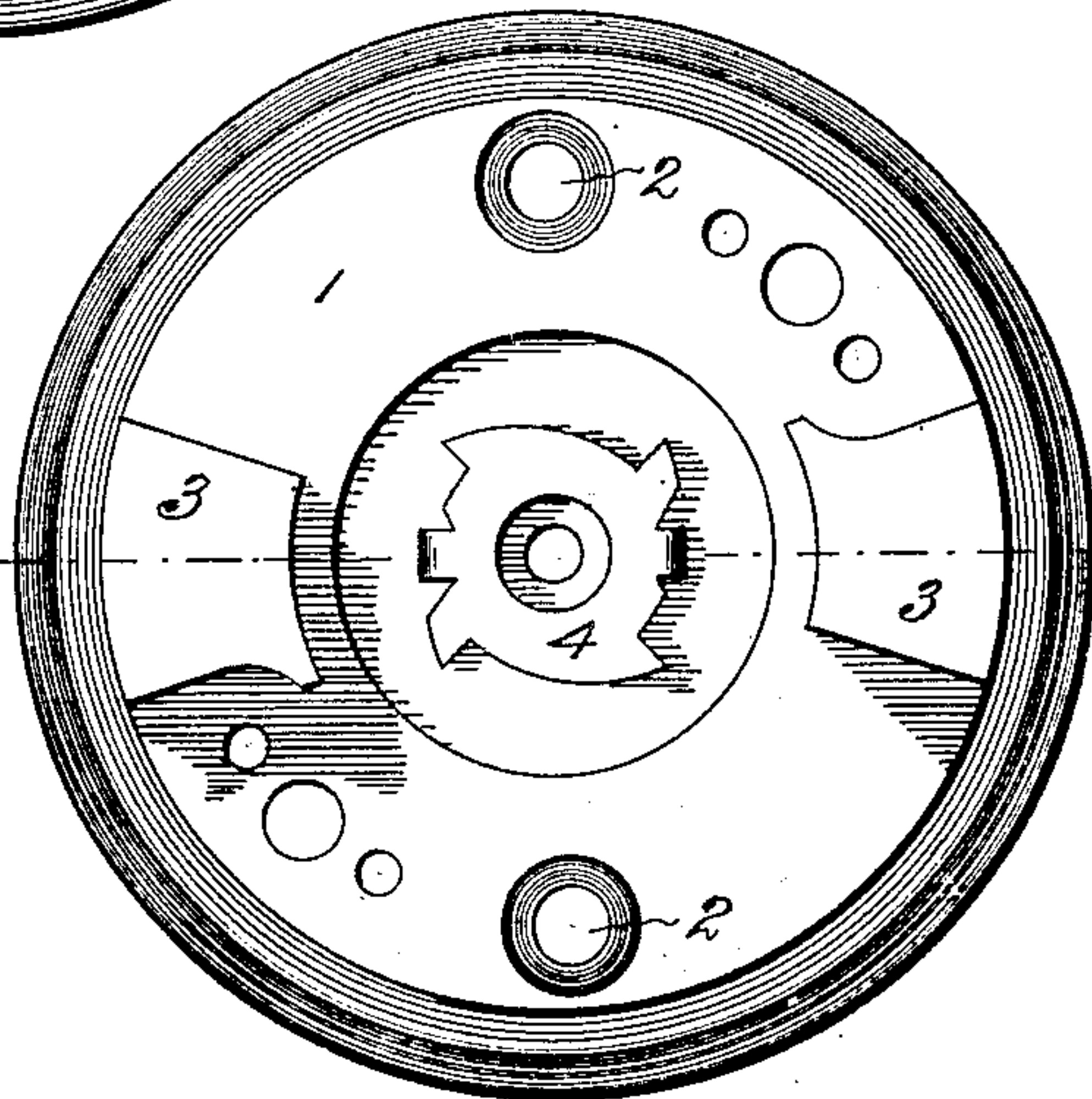


Fig. 3

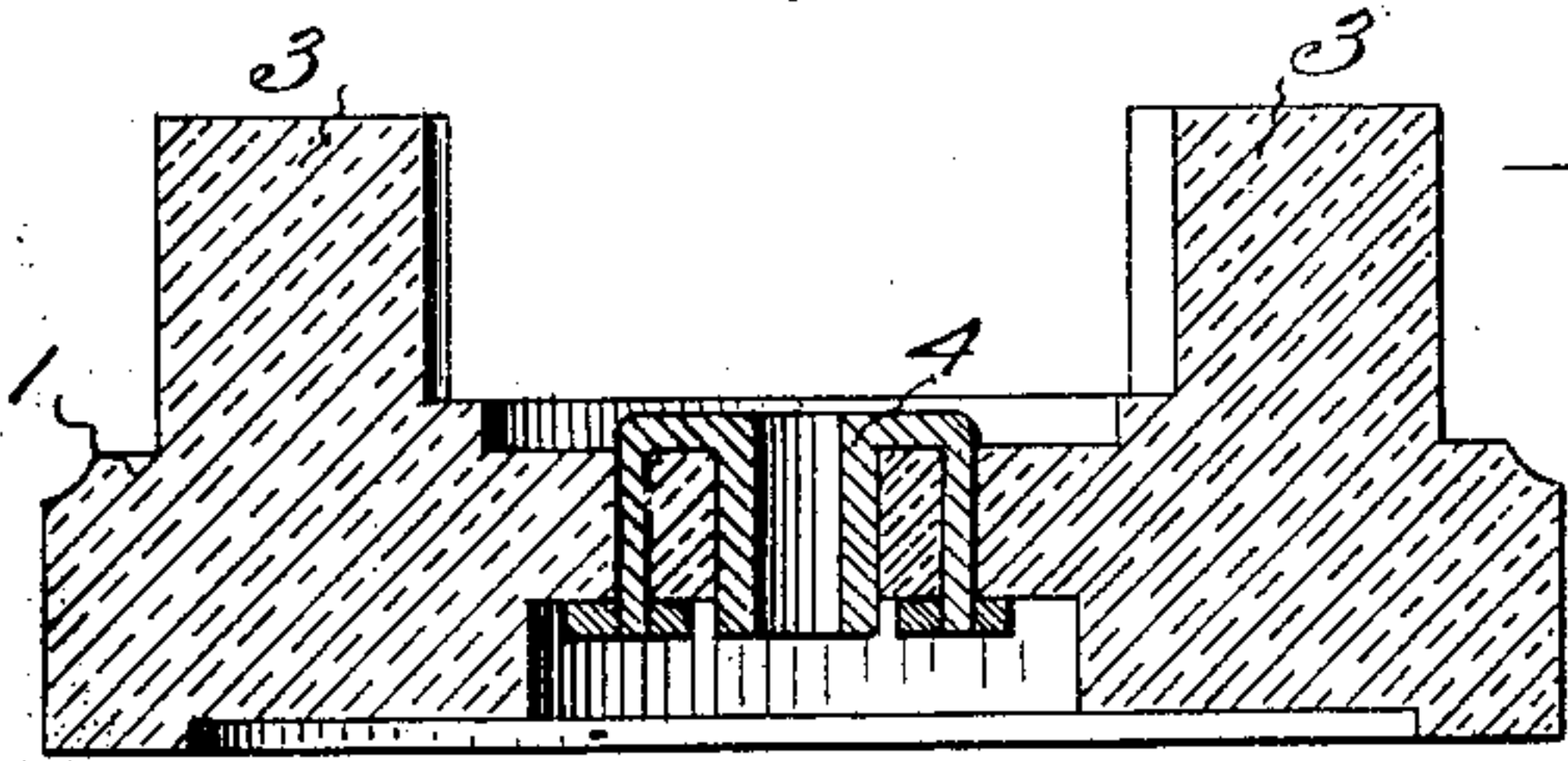


Fig. 4

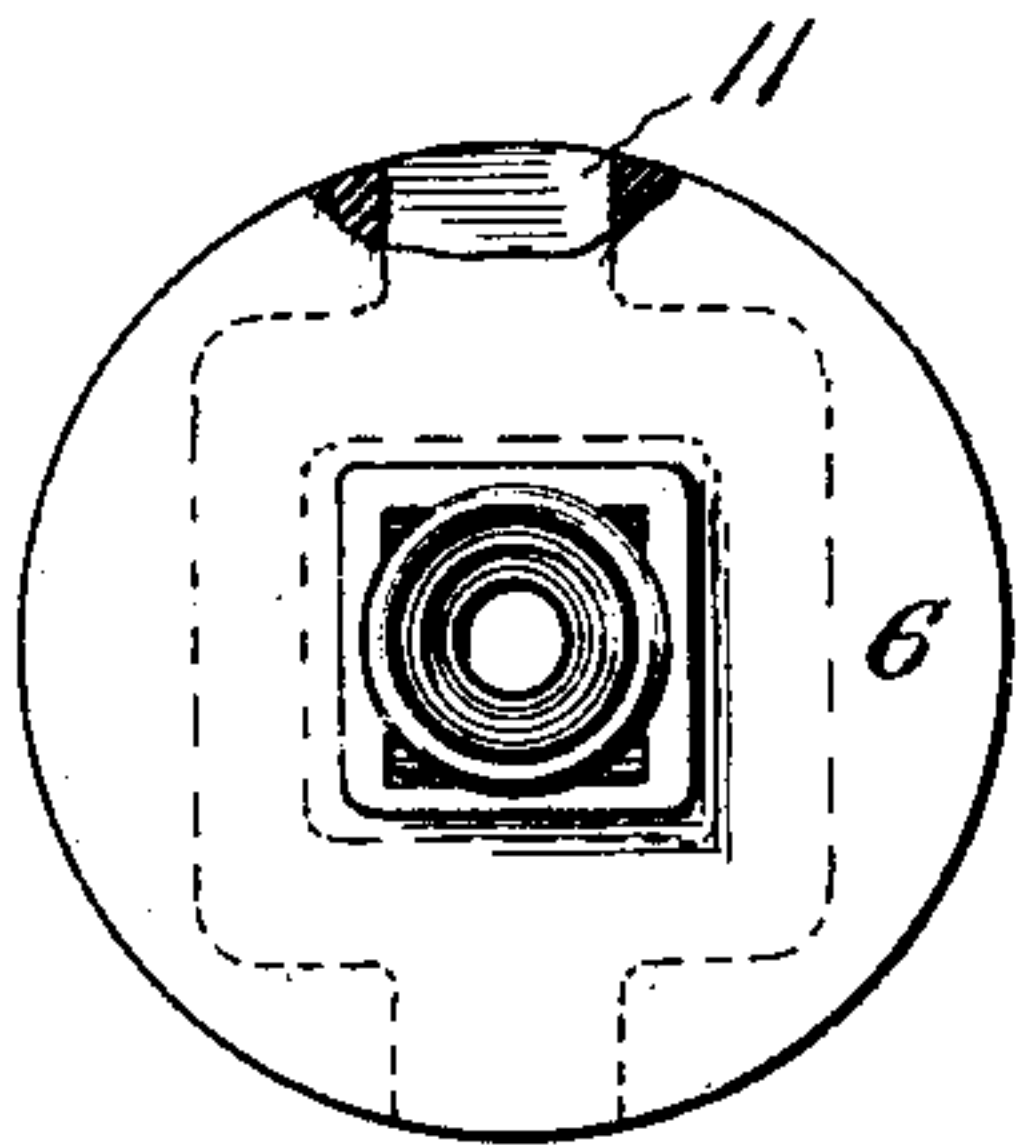
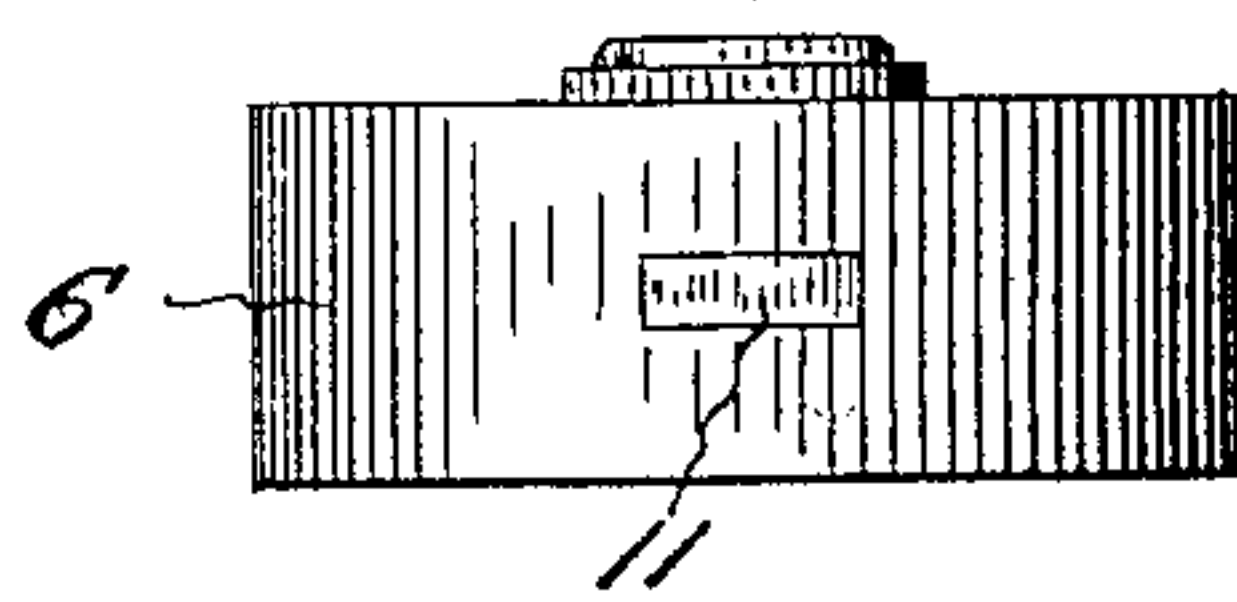


Fig. 5



Witnesses:
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UNITED STATES PATENT OFFICE.

MONROE GUETT, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE HART & HEGEMAN MANUFACTURING COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

ROTARY SNAP ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 751,728, dated February 9, 1904.

Application filed September 23, 1903. Serial No. 174,282. (No model.)

To all whom it may concern:

Be it known that I, MONROE GUETT, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Rotary Snap Electric Switches, of which the following is a specification.

This invention relates to a rotary snap electric switch which has insulating material arranged to check any tendency of an arc to follow the movable poles from the stationary terminals when the circuit is opened.

The object of the invention is to provide a very simple, substantial, and effective means for smothering any arc that tends to continue between the stationary terminals and the movable poles after the latter have been thrown for opening the circuit.

This invention resides in a rotary snap-switch having stationary spring circuit-terminals, movable poles embedded in insulating material and adapted to be thrown rapidly for making and breaking connection with the stationary terminals, and solid blocks of insulating material so located adjacent to the stationary terminals that the exposed ends of the embedded movable poles must travel past them as they break contact with the stationary terminals.

Figure 1 of the accompanying drawings shows a plan view of a switch that embodies the invention with the cover and operating-handle omitted. Fig. 2 shows a plan view of the base of this switch. Fig. 3 shows a sectional view of the base on the plane indicated by the dotted line of Fig. 2. Fig. 4 shows a plan of the rotatory commutator of insulating material, which contains the movable poles; and Fig. 5 shows an edge view of a commutator and an exposed end of the pole-plate.

The base 1 of the switch may be formed any shape of suitable insulating material, preferably porcelain, with holes 2 for the fastening-screws and arc-shaped blocks 3, that project upwardly from the top surface. At the center of the base is the usual ratchet-bushing 4, which supports the spindle 5, upon

which are mounted the commutator 6 and the spring 7, that is arranged in a common manner to throw the commutator when the handle is turned. The binding-posts 8, to which the ends of the circuit-wires are attached, are fastened to metal plates 9, secured to the face of the base. Attached to the binding-posts are spring-brushes 10, which form the circuit-terminals.

Embedded within the insulating material of the commutator is the pole-plate 11. The ends of the pole-plate are flush with the periphery of the commutator and are adapted to alternately make and break contact with the terminals as the handle is turned and the commutator rotated. The inner faces of the terminals and the inner walls of the insulating-blocks that extend upwardly from the base are shaped to closely conform to the periphery of the commutator.

The terminals are arranged on the base adjacent to and back of the insulating-blocks, so that when the poles are thrown from the terminals they pass directly across the inner faces of the blocks. The commutator stops after the poles have been thrown to break connection with the terminals in such position that the insulating-blocks, which closely conform to the periphery of the commutator, are between the terminals and the poles. The spring brush-terminals make close connection with the ends of the pole-plate, and they are located in air-spaces, so that they will not heat and lose their elasticity and burn the insulation when the circuit is closed. The ends of the poles are also opposite air-spaces and not completely surrounded by insulation when the circuit is open, and yet the terminals and the ends of the poles are completely separated by solid masses of insulation when the circuit is opened. The blocks which separate the terminals from the poles are solid pieces and have no movable parts nor slots to get out of order, become clogged, or retain moisture.

The invention claimed is—

1. A rotary snap electric switch having a base, spring-terminals fixed to the base, a rotatory commutator carrying a pole-plate with

its ends only exposed, movably supported by the base, and a block of insulating material extending upwardly from the base in front of each spring-terminal and having its inner
5 wall conforming to and closely fitting the periphery of the commutator, substantially as specified.

2. A rotary snap electric switch having a base of insulating material, spring-terminals
10 fixed to the base, a rotatory commutator of insulating material movably supported by the base, a pole-plate embedded within the commutator and having its ends only exposed and adapted to make and break contact with the

terminals, and a block of insulating material 15 extending upwardly from the base adjacent to each terminal and having its inner face conforming to and closely fitting the periphery of the commutator in such manner as to form an insulating-barrier between the 20 terminals and an end of the movable pole-plate embedded within the commutator when the circuit is open, substantially as specified.

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Witnesses:

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