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PATENTED JAN. 29, 1907.

EXTRA HIGHLY VIBRATING CONTACT BREAKER.

APPLICATION FILED DEC. 9, 1903.

Fig. 3.

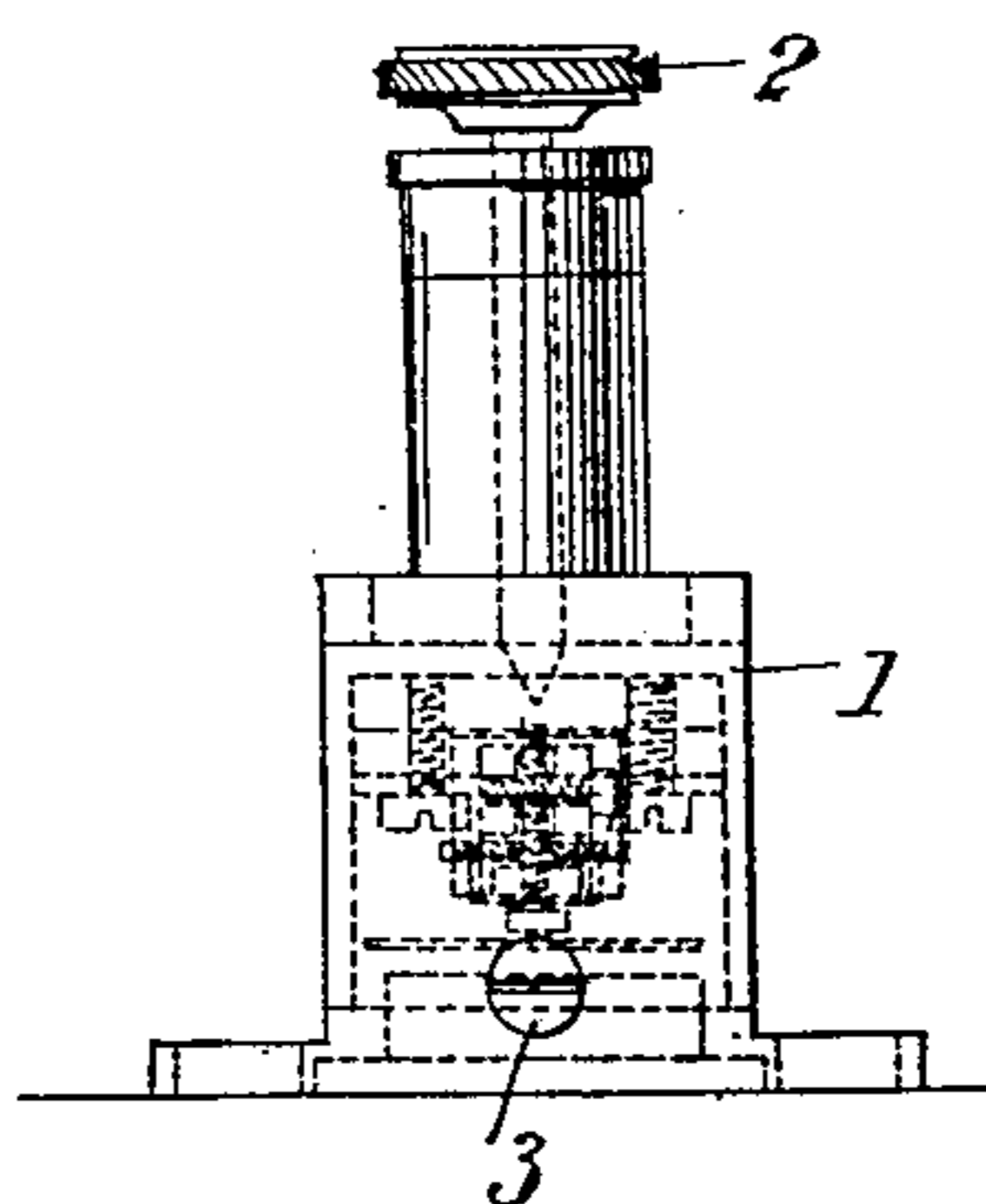
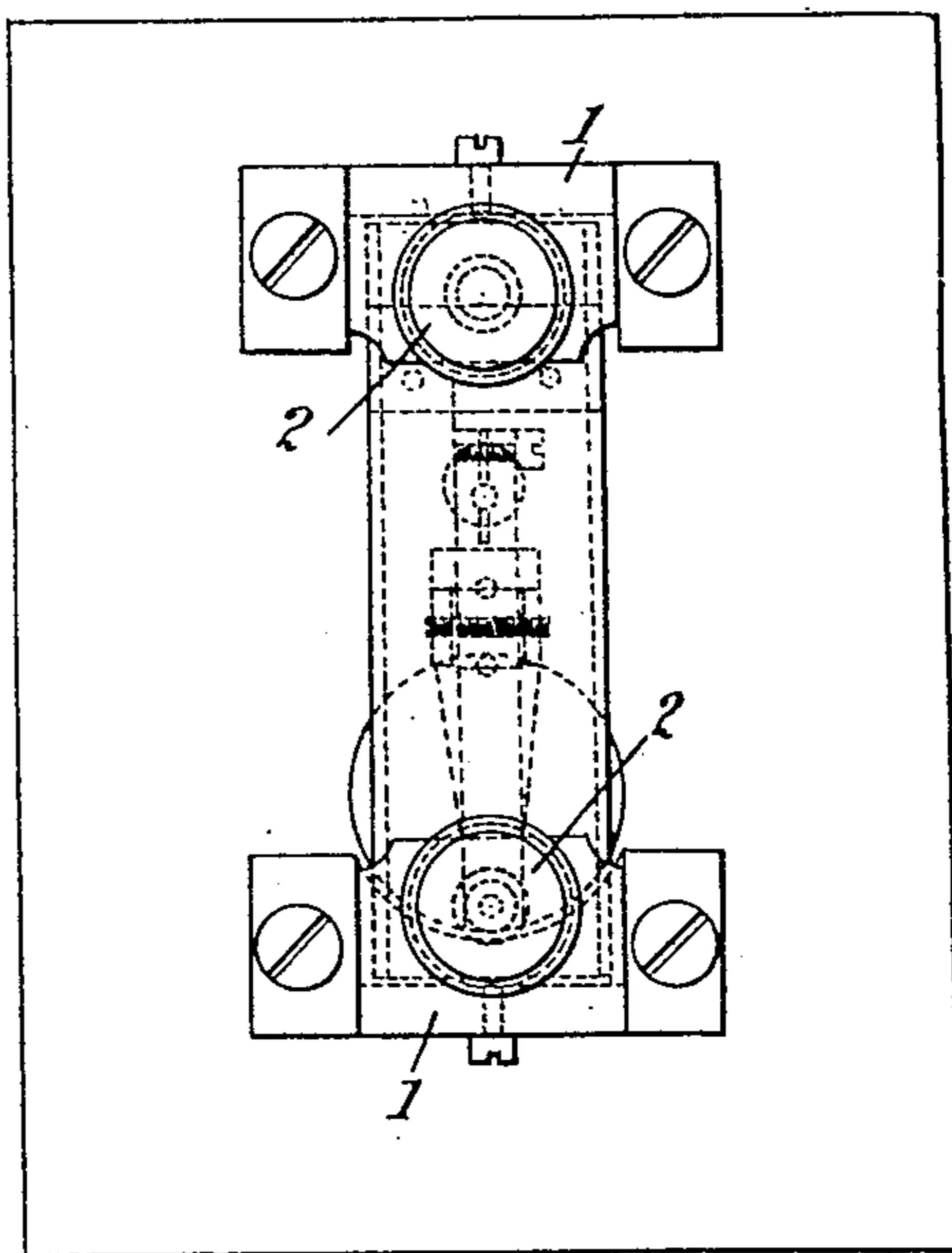


Fig. 1.



Inventor.

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by D. Singer. Attorney.

UNITED STATES PATENT OFFICE.

GUSTAVE MAMY, OF PARIS, FRANCE.

EXTRA-HIGHLY-VIBRATING CONTACT-BREAKER.

No. 842,407.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed December 9, 1903. Serial No. 184,435.

To all whom it may concern:

Be it known that I, GUSTAVE MAMY, a citizen of the French Republic, and a resident of Paris, France, have invented an Extra-Highly-Vibrating Contact-Breaker, of which the following is a specification.

This invention relates to new and useful improvements in contact-breakers; and it particularly contemplates a high-speed-vibrating contact-breaker applicable for use in connection with induction-coils for the ignition of stationary or automobile internal-combustion motors for the production X-rays for wireless telegraphy, mine-blasting, and the like.

The primary object of this invention is to provide a vibration-interrupter which will produce more even and rapid vibrations than are produced by devices in use at the present time.

This invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a contact-interrupter constructed in accordance with my invention. Fig. 2 is a side elevation thereof with appurtenant parts shown diagrammatically, and Fig. 3 is an end elevation of the same.

The invention in the embodiment illustrated comprises a vibrating interrupter, in which a vibrating element 4 is arranged to contact with a centrally-fulcrumed oscillating lever 9, which is insulated from said vibrating element and carries adjustable means for breaking the contact between said element and lever at a selected point in the movement of the latter. In proximity to the ends of the oscillating lever and vibrating element I employ slidably-mounted standards 1, provided with clamping-pins 2, by which said standards are adapted to rigidly secure or hold in position, as illustrated, clamping-blocks 5 and 6, between which the vibrating resilient element 4 is secured, and a bracket 13, carrying a horizontal arm or bridge-piece 12, which has insulated connection with the block 6. The bridge-piece 12 is provided with apertured depending lugs

18, between which the oscillating lever 9 is supported by the pin 11. The lever 9 carries a platinum iridium contact-point 8, arranged to engage a similar contact-point 7, carried by the free end of the vibrating element 4. A stop-screw 16 is threaded through the other end of the lever 9, which is enlarged, as shown, to act as a counterweight to the longer end. The screw 16 is designed to momentarily engage the bridge-piece 12 and disrupt the contact formed by the vibrating element 4 in a manner to be hereinafter described.

In Fig. 2 I have shown an induction-coil interposed in the battery-circuit with the interrupter and having its core pierced by a soft-iron plug carried by the interrupter-plug 17. A wire leads from the positive pole of the battery to the primary circuit of the induction-coil and from thence to the binding-post hand-standard. A binding-post 15 is carried by the right-hand standard 1, from which leads a return-wire to the battery.

A leaf-spring 10 is employed to produce contact between the lever 9 and the vibrating element 4 and to movably hold said lever in contact with the said element 4. In this arrangement of the parts the current passes through the post 3 of the standard 1, through the blocks 6 and 5, through the vibrating element 4, contacts 7 and 8, lever 9, spring 10, bridge-piece 12, pin 2, standard 1, binding-post 15, and back to battery. The battery-circuit having thus been established, the induction-coil is energized, the core magnetized, and the vibrating element 4 drawn downward, the lever 9 moving therewith under the action of the spring 10. The lever 9 moves with the element 4 until the adjustable stop 16 engages the bridge-piece 12, thereby stopping the lever's movement and in consequence thereof disrupting the contact between the lever 9 and vibrating element 4. This breaks the circuit, and the coil becomes de-energized, whereby the vibrating element 4 vibrates to its initial position by reason of its own resiliency and again makes contact

with the lever 9, whereby the foregoing operation is repeated as long as current is supplied.

Having fully described my invention, I
5 claim—

A vibrating interrupter having a vibrating
element, a centrally - fulcrumed spring-
pressed oscillating lever adapted to normally
contact with said vibrating element, said
10 lever being insulated from the said vibrating

element and adapted to follow its movement during a portion thereof and a stop adapted to limit the movement of said lever in one direction, substantially as described.

In testimony whereof I have hereunto set 15
my hand in presence of two witnesses.

GUSTAVE MAMY.

Witnesses:

ADOLPHE STURM,

H. C. COXE.