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ELECTRIC BELLS
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Fig.1

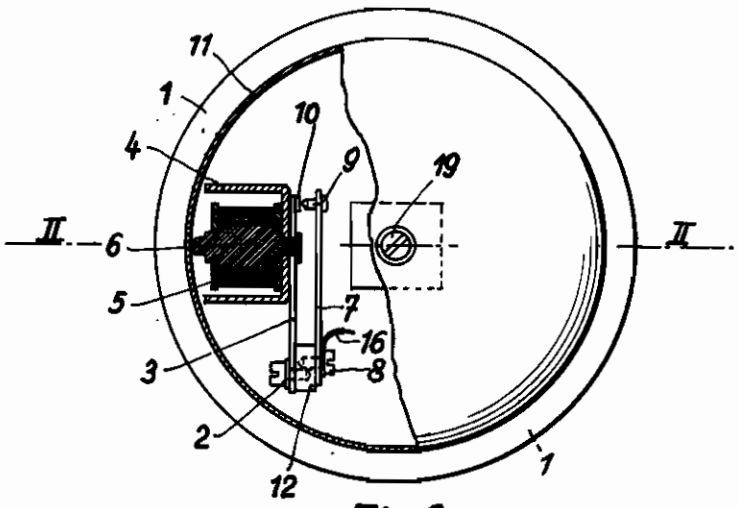


Fig.2

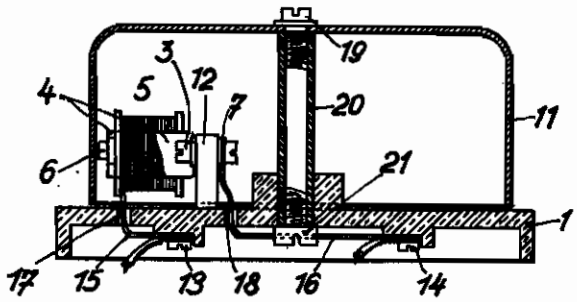
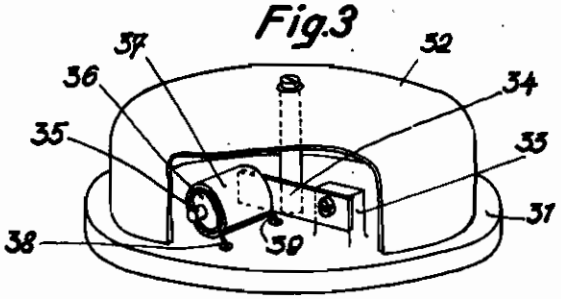


Fig.3



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ALIEN PROPERTY CUSTODIAN

ELECTRIC BELLS

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vested in the Alien Property Custodian

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This invention relates to an electric bell which, compared with known types, is distinguished by simplicity of construction, the requirement of very few simple accessories and therefore its primary costs are very low. A further advantage of the bell according to my invention is the feature that in spite of a little amount of current required an intense ringing is produced which is due to the fact that practically the whole magnetic power flow traverses an iron member which is interrupted only by very small air spaces. With the same amount of current used the bell attains a wider range of oscillations than other types of bells, thereby the sound becomes more intense and the adjustability is improved. The bell can be operated with continuous or alternating current.

The advantages of this invention are obtained by a magnetic coil resting on a central core of an E shaped or bell shaped magnet member which is movably fixed on a spring, the other end of the spring being fastened to the pedestal, the bell member forming the terminal yoke for the E shaped or bell shaped magnet member which strikes against the bell member when it oscillates.

The drawing shows two embodiments of the subject matter, Fig. 1 shows a bell, in axial section, partly cut, and Fig. 2 shows a cross sectional view, indicated by the line II—II in Fig. 1; Fig. 3 shows a second modification of the invention in perspective illustrating the bell member partly cut out.

On a vertical supporting part 12 mounted on the pedestal 1, which is made of insulating material, is secured by means of the screw 2 a leaf spring 3 and at the free end of the spring is attached an U-shaped magnetic iron core 4. Between the supporting part and the magnetic iron core rests the core 6 carrying the magnetic coil 5, thus giving the whole magnetic member the shape of an E. On part 12 of the pedestal is also fixed a metal strip 7 on a screw 8 which serves at the same time as a connecting contact. The strip 7 carries at its free end a contact 9 which cooperates with a counter-contact 10 fixed at the spring 3.

At the bottom of the pedestal 1 are provided the connecting contact screws 13 and 14 from which lead the conduits 15 and 16 through the bores 17 and 18 of the pedestal to the magnetic coil 5 and the connecting screw 8 respectively. The circuit therefore is conveyed from the screw 13 through the conduit 15 to the magnet winding 5 and from the other end of the latter, which is conductingly connected with the magnetic core and the leaf spring 3, to the contact 10 and then through the contact 9, the strip 7, and the screw 8 through the conduit 16 to the screw 14.

The bell member 11 is fixed by means of a screw 19 on a tube 20 which is secured on the pedestal by the screw 21. The free ends of the lugs 4 and 6 of the magnetic member reach close up to the bell member which forms the magnetic terminal yoke and which is separated from the magnetic member 4 and 6 only by small air spaces. For adjusting the distance of the bell member 11 and the magnetic member 4 and 6 the fastening screw 19 may be a little eccentrically fixed on the bell 11, so that by turning the bell the size of the air spaces may be altered. Other devices for adjusting could also be used.

When the current is switched on, the magnetic core 4 is attracted by the bell and strikes against it with the end of the core 6. At that moment the contact 10 has separated itself from the counter-contact 9, so that by means of the spring 3 the known alternating interruption is caused. The fixing of the contact 9 on a metallic arm 7, which makes a light oscillation possible, supports the interruption, because the arm 7 oscillates itself. Furthermore a better cleanliness of the contact points 9 and 10 is attained by the oscillating movement of the contact 9.

Figure 3 shows an electric bell, suitable for an alternating current, comprising a bell member 32 which is mounted on a pedestal 31, a leaf spring 34 which is fixed on part 33 of the pedestal and a magnetic system consisting of a central lug 35 which carries the magnet winding 36 and a bell-shaped part 37 surrounding the latter. The conduits 38 and 39 lead from invisible connecting screws direct to the magnet winding 36.

When the current is switched on, an electromagnetic alternating flow is produced in the magnetic member 35 and 37 and in the bell member 32, the bell member being separated from the magnetic member only by small air spaces and serving as a magnetic terminal yoke. This alternating magnetic flow causes the magnetic member to oscillate and these oscillations make it strike against the bell member.

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