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CHIME SIGNAL

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Fig. 1

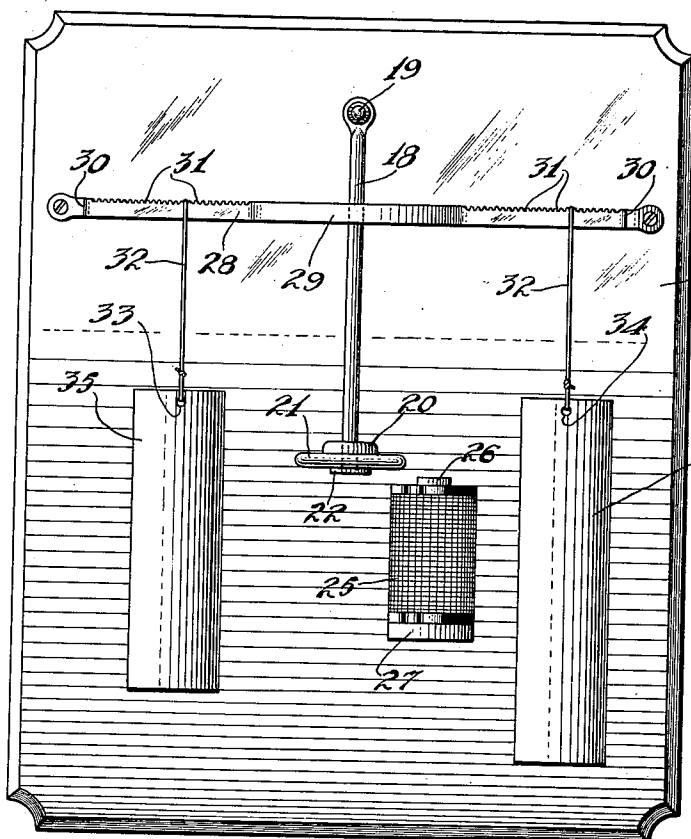


Fig. 2

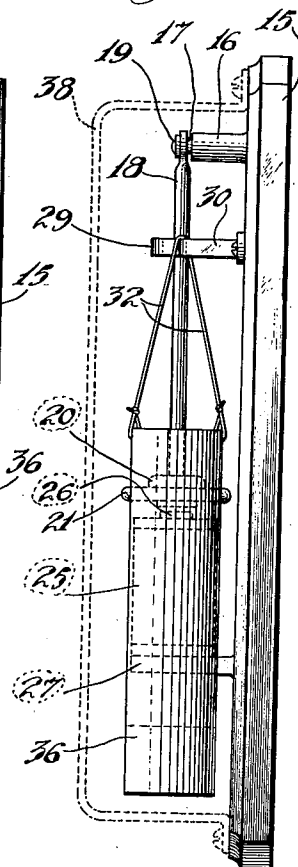
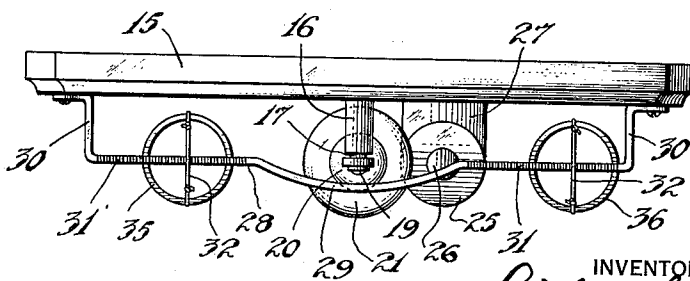


Fig. 3



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CHIME SIGNAL

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2 Claims. (Cl. 177-7)

This invention relates to signalling devices used to attract the attention of attendants to a caller, as for instance at a door, desk, room or wherever service is to be rendered, in place of the customary call bell.

Such bells, buzzers or gongs as are commonly used emit a sharp startling sound, disagreeable to many people, particularly those of a nervous temperament, and are seldom or never provided with means for adjustment whereby the tone may be modified in accordance with the volume of sound it is desired to produce.

It is, therefore, an object of the present invention to provide a clearly audible signal device capable of producing an agreeable, musical sound upon pressing the usual push button, which may be located remote from the sound emitting device.

A further feature is in the provision of preferably a two-tone magnetically operated chime signal, pleasant to the ear and effective in its operation.

Another purpose is to produce a simple chime signal in which the intensity of the chime sounds may be increased or diminished at will in accordance with the volume desired, and which is inexpensive to construct.

These valuable objects are accomplished by the novel and practical construction, combination and arrangement of parts hereinafter described and illustrated in the accompanying drawing, constituting an important part of this disclosure, and in which:

Fig. 1 is a front elevational view of an embodiment of the invention fully assembled, the cover being omitted,

Fig. 2 is a side elevational view of the same, and

Fig. 3 is a top plan view thereof.

Referring in detail to the drawing, the numeral 15 designates a baseboard or panel of any desired material, generally a rectangle in profile, which may, if desired, have ornamental marginal edges, and is to be secured in an upright position upon any convenient surface.

Centrally of the panel, near its upper end is a fixed post 16 having a reduced outer end 17 on which is freely pivoted a pendulous bar 18, held in position by a collar 19.

Secured on the lower portion of the bar 18 is a collar 20, against which abuts a hammer 21 of non-magnetic metal, here shown as a circular disc, and held to the end of the bar by an armature 22 of iron or other substance capable of being magnetically attracted, the hammer being

normally positioned substantially central of the panel but out of contact with it.

An electro-magnet 25 of common type, provided with a core 26, is supported by a bracket 27 reaching outwardly from the panel, the magnet extending upright in a plane parallel with the normal position of the bar 18 and to one side, in such manner that the core 26, when the magnet is energized, will attract the armature 22, causing the hammer bar to swing in that direction. A strap-like narrow rail 28 having a forwardly reaching arcuate, central portion 29 is disposed in parallel spaced relation to the panel across its upper part, the rail having angular rearwardly turned bracket portion 30, terminating in feet held by suitable fastenings to the panel.

The upper edge of the rail is preferably provided with a plurality of corrugations 31 along its straight length 28 to adjustably receive the bights of preferably flexible cords 32, their down-reaching ends being engaged in openings 33 and 34 formed in the opposite sides and near the upper ends of resonator tubes 35 and 36. It will be seen that the tubes vary in length whereby different tones are emitted when struck by the hammer 21 and may be of different diameters as well.

The tubes may be metallic, glass or other resonant material, and obviously may be adjusted towards or from the hammer by changing the position of the cord bights along the rail 28 to vary the volume of the sound.

In operation, when a push-button, not shown, is depressed, an electric circuit is formed through the magnet 25, its core 26 attracting the pendulous hammer 21, causing it to strike the tube 36 whereby a musical note of certain pitch is produced; upon release of the hammer, as by ceasing pressure on the push-button, the hammer will rebound and due to its momentum forcibly strike the tube 35, producing a sound of different pitch, the hammer eventually returning to its pendant position intermediate the tubes. If the button is continually held depressed for a long time, that is, the circuit held closed for a long period, instantly upon the closing of the circuit, the hammer will be drawn by the magnet to cause it to strike tube 36, and the hammer will be then drawn back into a position over the magnet. When the circuit is again opened, no matter how long afterwards, the magnet will be deenergized and the bar 18 will swing to strike tube 35.

A cover or housing 38 shown in dotted lines

may, if desired, be arranged over the structure and attached in any convenient manner to the panel.

From the foregoing it will be apparent that an essentially simple, inexpensive chime signal has been disclosed, readily regulated for tonal values, whereby a combination of musical sounds may be produced upon actuation, and although the foregoing is descriptive of the best known embodiments of the invention, it will be understood that minor changes and modifications may be made as may fall within the scope and spirit of the appended claims.

Having thus described this invention and set forth the manner of its construction and application, what is claimed as new and sought to secure by Letters Patent is:

1. A chime signal comprising an upright support, a pendulous hammer pivoted on said support to swing in a path parallel thereto, resonant devices suspended in the path of said hammer, an upright electro-magnet fixed on said support

below the hammer with its axis laterally remote from the pivot point of the hammer, and means combined with said hammer attractable by said magnet when energized.

5 2. A signal device, comprising an upright panel, a bar pivotally suspended from said panel, a hammer of non-magnetic material attached to the lower end of the bar, an electromagnet supported by the panel and positioned so that its
10 solenoid is vertical with the upper end thereof below the hammer, the axis of the solenoid being spaced from a vertical line through the pivot of the bar, resonating devices supported by the
15 panel on each side of the bar in positions to be struck by the hammer, and an armature of magnetically attractable material carried by the
20 hammer to cause the hammer to be drawn towards the electromagnet and strike one of said resonant devices when the electromagnet is energized.

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