

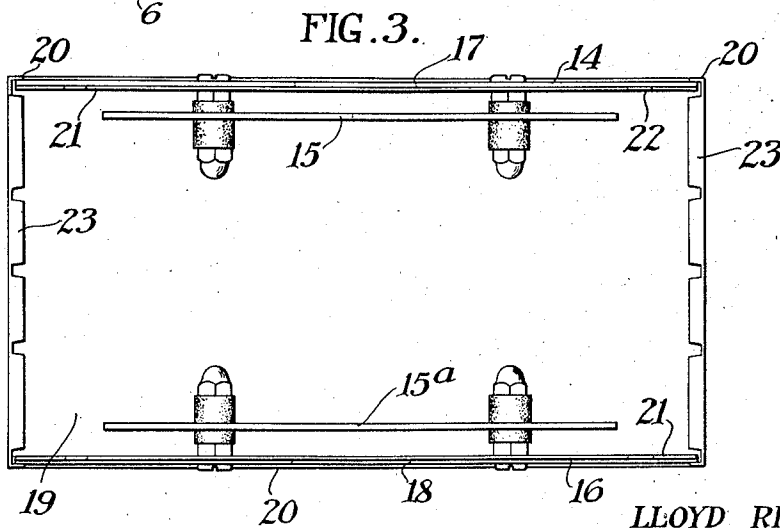
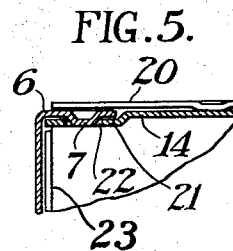
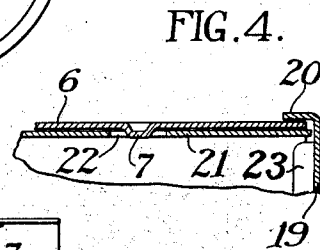
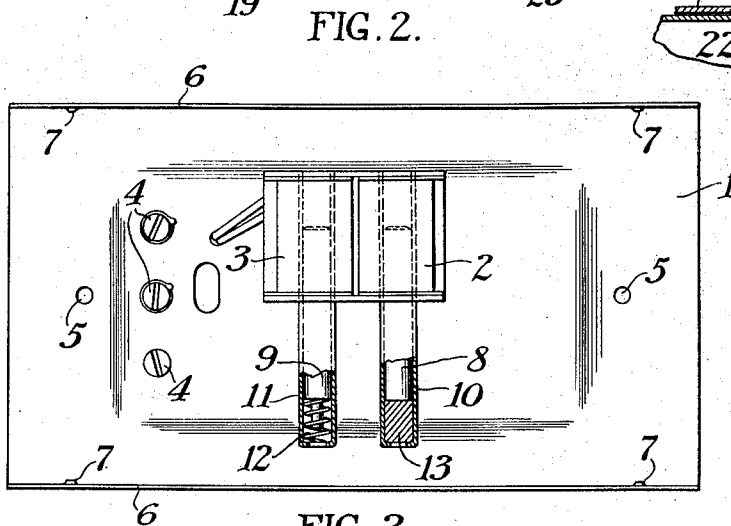
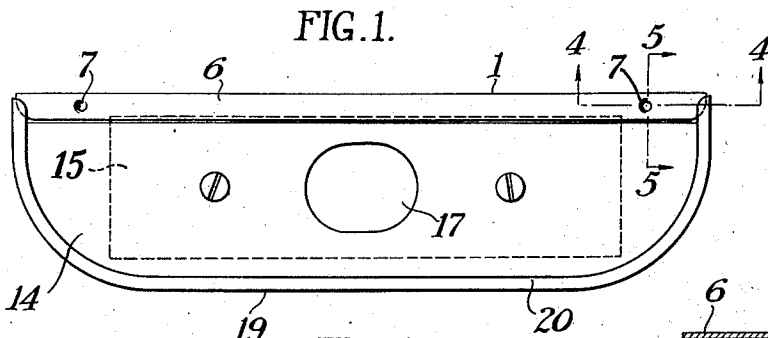
Feb. 6, 1940.

L. RITTENHOUSE

2,189,181

SIGNAL DEVICE

Filed June 20, 1938



LLOYD RITTENHOUSE
INVENTOR

Harold L. Stonebraker
ATTORNEY

UNITED STATES PATENT OFFICE

2,189,181

SIGNAL DEVICE

Lloyd Rittenhouse, Honeoye Falls, N. Y., assignor
to The A. E. Rittenhouse Co., Inc., Honeoye
Falls, N. Y., a corporation of New York

Application June 20, 1938, Serial No. 214,767

2 Claims. (Cl. 177-7)

This invention relates to a signal device, with reference more particularly to the type of construction employing a chime bar that is engaged by an electrically operated striker, and it has for its object to afford an efficient and practical structure that can be economically manufactured and readily installed.

In a more particular aspect, the invention has for its purpose to provide a signal device of this general character including one or two chime bars which are mounted upon a housing that is detachably engaged with a removable panel which in turn carries the electrical operating means.

An additional purpose of the invention is to afford a structure that permits first attaching the removable panel to a wall or support, making the necessary electrical connections, after which the portion of the housing carrying the chime bars can be easily secured in operative relation against the panel to afford a resonance chamber and is held in place frictionally or by other convenient means.

To these and other ends, the invention consists in the construction and arrangement of parts that will appear from the following description when read in conjunction with the accompanying drawing, the novel features being pointed out in the claims following the specification.

In the drawing:

Fig. 1 is a plan view of a signal device made in accordance with a preferred embodiment of the invention;

Fig. 2 is a side elevation of the removable panel and electrical operating means carried thereby;

Fig. 3 is a side elevation of the removable portion of the housing with chime bars supported by its top and bottom walls;

Fig. 4 is a vertical sectional view on the line 4-4 of Fig. 1, and

Fig. 5 is a transverse vertical sectional view on the line 5-5 of Fig. 1.

Referring more particularly to the drawing in which like reference numerals refer to the same parts throughout the several views, the structure is herein illustrated as applied to a device embodying upper and lower chime bars for imparting two different signals, one actuated by a striker engaging both chime bars successively, and the other actuated by a striker engaging only one chime bar.

In the arrangement illustrated, 1 designates a panel of metal having attached thereto, by spot welding or otherwise, the electromagnets 2 and 3 which are controlled by electric circuits connected with the binding posts 4, as usual in this

class of apparatus. The panel 1 may be attached to a wall or other support by suitable attaching devices engageable through openings 5 formed in the panel, while 6 designate lateral flanges at the top and bottom of the panel and provided with suitable indentations or projections 7 for detachable spring engagement with the removable part of the housing which is thereby held secured to the panel 1.

The electromagnets 2 and 3 are provided with strikers 8 and 9 movable in the tubes 10 and 11 respectively. The tube 11 is provided with a spring 12 at its lower end which holds the striker 9 normally in the position shown but permits it to move downwardly for engagement with the lower chime bar after its upward movement into engagement with the upper chime bar, while tube 10 is provided with a pad 13 at its lower end that limits the downward movement of the striker 8 to the position shown so that the latter engages only the upper chime bar in its operation.

The upper chime bar is designated at 15, being suitably mounted on posts attached to the top wall 14 of the removable portion of the housing, while 15a designates the lower chime bar that is suitably mounted on posts attached to the bottom wall 16 of the removable portion of the housing, the top wall being provided with an opening 17 and the bottom wall with an opening 18 located respectively above and under the central portions of the chime bars.

The top and bottom walls 14 and 16 of the removable portions of the housing are preferably shaped as shown in Fig. 1, and are permanently attached to the front wall 19 which is correspondingly formed and provided with horizontal flanges 20 at the top and bottom which are spot-welded or otherwise permanently secured to the top and bottom walls.

The top and bottom walls 14 and 16 are provided along their inner edges with flanges or offset portions 21, see Fig. 5, having openings 22 provided therein to receive the indentations or projections 7 on the flanges 6 of the panel 1, and 23 designate vertical flanges at the ends of the front wall 19 which abut the panel 1 at the ends thereof when the housing is assembled thereon. By providing the offset portions or flanges 21 on the upper and lower walls 14 and 16 of the housing, the flanges 6 of the panel 1 lie flush with the top and bottom walls 14 and 16, and between the offset portions 21 and the inner ends of the flanges 20, as shown in Fig. 4.

In assembling the device, the panel 1 is first secured to the wall or support and the necessary

electrical connections made. Following this, the housing with the chime bars attached, as shown in Fig. 3, is brought into operative relation with the panel 1 by positioning it against the panel

- 5 with the flanges 20 immediately above and the flanges 21 immediately below the flanges 6 on the panel. The housing is then pushed against the panel until the end flanges 23 are in contact therewith, and the projections 7 have sprung
10 into engagement with the openings 22 in the flanges 21, the parts being closely fitted to permit such interlocking relation. The housing is thus held tightly engaged with the wall-attached panel, but can be removed quickly by pulling it
15 laterally with sufficient force to overcome the spring tension of the flanges 6 carrying the locking projections 7. It will be understood that when one circuit is closed, the striker 11 is first actuated upwardly into contact with the chime
20 bar 15, then drops downwardly into contact with chime bar 15^a when the circuit is opened, and is then returned by spring 12 to its initial position shown, whereas when the other circuit is closed, the other striker 10 strikes only the
25 chime bar 15 during its upward movement.

- The invention possesses certain commercial advantages over prior devices such as illustrated in Patent No. 2,120,153, since the removable housing, when assembled in operative position,
30 conceals the electrical terminals and connections as well as the attaching devices which secure the structure to the wall, thus presenting a considerably more attractive appearance. The device can be more readily secured in operative position,
35 due to the fact that the attaching means and electric terminals are arranged on the back plate in a vertical plane rather than in a hori-

zontal plane on top of the housing, and a further advantage resides in securing the chime bars more firmly, by attaching them to the top and bottom walls of the housing instead of mounting them on arms projecting laterally 5 from a vertical plate.

While the invention has been described with relation to a specific construction, it is not confined to the precise details illustrated, and this application is intended to cover such departures or changes as may come within the purposes of the invention or the scope of the following claims.

I claim:

1. A signal device comprising a housing consisting of a panel, a solenoid carried by said panel, a housing portion detachably secured to said panel and affording therewith a resonance chamber, a chime bar mounted on said detachable portion within the resonance chamber, said 20 housing having an opening opposite a portion of the chime bar, and a striker located within the solenoid and movable to engage said chime bar.

2. A signal device comprising a housing consisting of a panel, a solenoid carried by said panel, a removable housing portion detachably secured to said panel and including top, bottom, side and front walls affording in conjunction with the panel a resonance chamber, said top and 30 bottom walls having openings therein, chime bars carried by said top and bottom walls and located within the resonance chamber below and above said openings respectively, and a striker located within said solenoid and movable to engage said chime bars.

LLOYD RITTENHOUSE.