

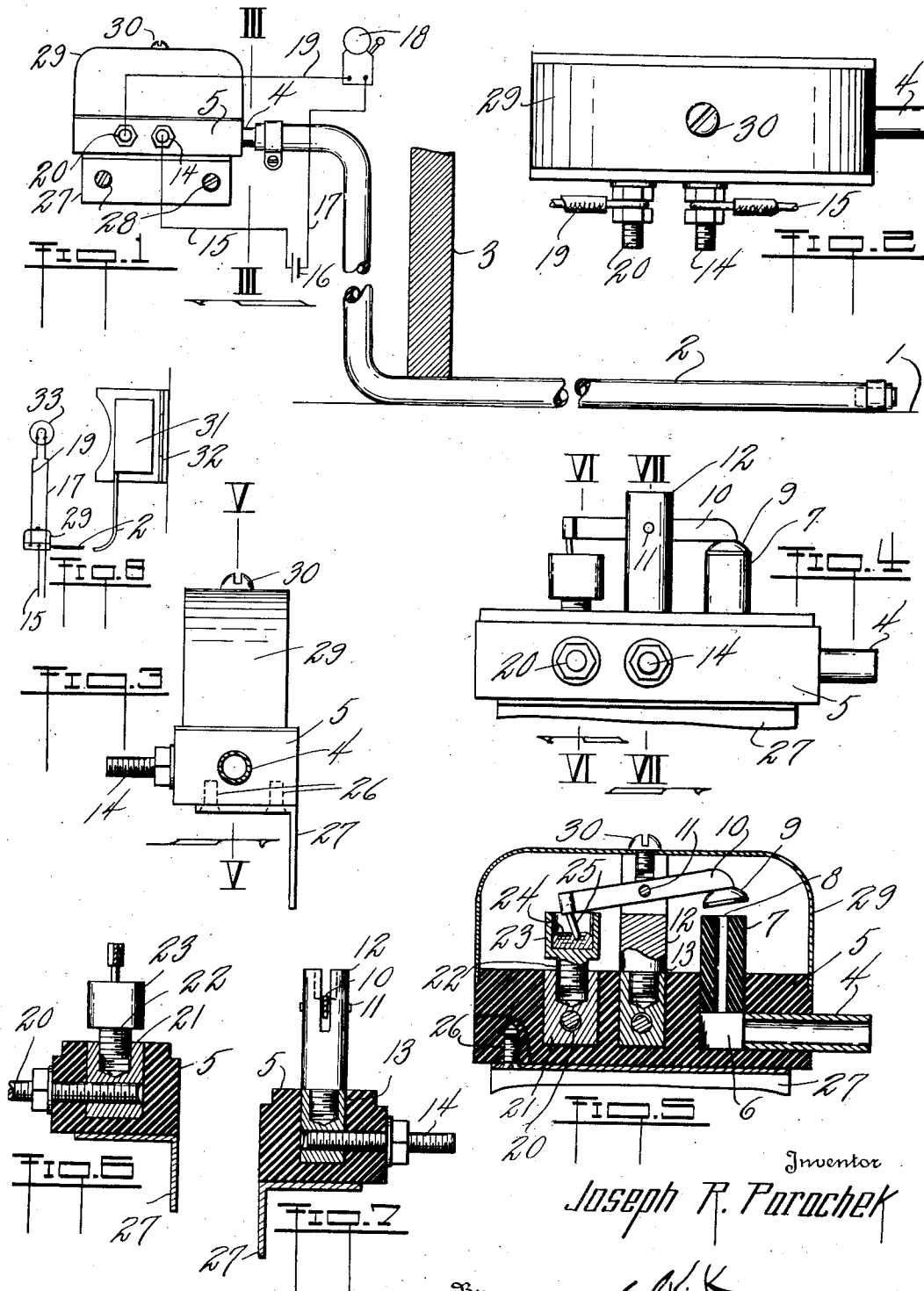
Sept. 19, 1939.

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2,173,370

SIGNAL CONTROL

Filed Dec. 28, 1937



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## UNITED STATES PATENT OFFICE

2,173,370

## SIGNAL CONTROL

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Application December 28, 1937, Serial No. 182,109

## 1 Claim. (Cl 200—81)

This invention relates to remote control of audible or visible signals, especially as inter-connection between fluid and electric transmissions.

This invention has utility as a warning for station or window attendants as at automobile service or filling stations and clerks at ticket, cash, or other types of windows or counters.

Referring to the drawing:

Fig. 1 is a view, with parts broken away, showing an embodiment of the invention adapted for response hereunder say as crossed by a motor vehicle;

Fig. 2 is a plan view of the transmission box or connection device of Fig. 1;

Fig. 3 is a section on the line III—III, Fig. 1, showing the box in end elevation;

Fig. 4 is a side elevation of an enlarged scale from the showing in Fig. 1 with the protective cover removed;

Fig. 5 is a section on the line V—V, Fig. 3, showing the device in switch closing position, thereby departing from the open position showing in Fig. 4;

Fig. 6 is a section on the line VI—VI, Fig. 4, showing the adjustable fluid terminal of the switch device;

Fig. 7 is a section on the line VII—VII, Fig. 4, of the electrical connection to the carrier for the operating lever of the switch device; and

Fig. 8 is a view of an embodiment of the invention as a cashier's window signal.

Along driveway 1 adjacent the service portion of a filling station, there may extend tube 2, say of rubber, normally retaining its form, but as compressed by motor vehicle wheels thereover conducting a puff of such air along the tube as through the station wall 3 to fitting 4 as protected from the weather.

This fitting 4 is shown as into insulation block 5 to chamber 6 terminating in plug 7 having small port 8 upwardly therefrom. This transit of a vehicle over the compressible duct or tube 2 causes a puff of air out of the port 8 to thrust cap 9 away from closed position. This puff, in shifting the cap 9, moves such cap with lever 10 upon which it is mounted. This lever 10 has fulcrum 11 in conductor stem 12 rising from the insulation block 5. This conductor stem 12 is connected with block 13 having terminal 14 therefrom extending by line 15 to energy source 16. From the opposite side of this energy source 16 extend conductor line 17 to signal, herein shown as audible or bell device 18, located in a place to be heard or observed about the filling station. The circuit from this signal device 18 is completed by line 19 to terminal 20 extending into the block 5 to conductor member 21, to which threaded portion 22 of cup 23 extends for adjusting its position

in carrying conductor fluid as mercury 24 therein. This adjustment determines nicely the position which the cap 9 may be in for closed position at the port 8 and pin 25 in the remote end of the lever 10 clear of the mercury 24 in cup 23.

Accordingly, in this thrusting upward of the cap 9 clear of the port 8 the opposite end of the lever 10 is thrust downwardly to carry the terminal pin 25 into the mercury terminal 24 in completing the circuit and thereby operating the signal 18. This circuit-completing position is effected by the movement of the pin and dissipation of its momentum at its striking the mercury. There is, accordingly, a time interval effectiveness for holding this circuit closed in operating the signal 18, notwithstanding there may be rapid transit of the vehicle in its compression of the tube 2. This mercury switch is one which is of low resistance and effective for circuit closing and opening response without material depreciation over an extended period of time.

In completing this set-up, screws 26 in the block 6 may mount angle bracket 27 so that additional screws 28 may position this bracket on a station wall or elsewhere as desired. To avoid impact or tampering with this control for the signal, cap 29 may be assembled as a housing thereover by screw 30 engaging in the lever support or the stem 12. This pressure response through the compressible duct 2 may be effected from mat 31, say in position adjacent teller's window 32 in a bank or other place where a clerk may have other matters requiring attention and wish to be apprised or warned as someone appears.

The fluid transmission response at the compressing of the duct 2, even though a slight or minor puff, may rock this sensitive lever device and effect switch closing for electrical transmission to the closed circuit in sensitive response thereto, which may be visible signal 33 (Fig. 8) or audible signal 18 (Fig. 1).

What is claimed and it is desired to secure by Letters Patent is:

For an electric signal circuit having a pair of terminals, an insulation block base providing spaced mounting for said terminals, and additionally a duct insulation pedestal port, a lever having fulcrum mounting on one of said terminals, a mercury cup on the other terminal, a contact carried by the lever for swinging into and out of circuit closing position as to the mercury cup, a housing for the lever, terminals and port providing a common chamber thereover, a cap for the port also carried by the lever, and pneumatic fluid disturbance supply means to act on the cap which intercepts flow from the port into said chamber for effecting shifting of the lever.

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