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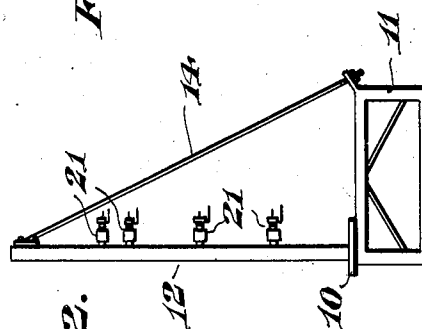
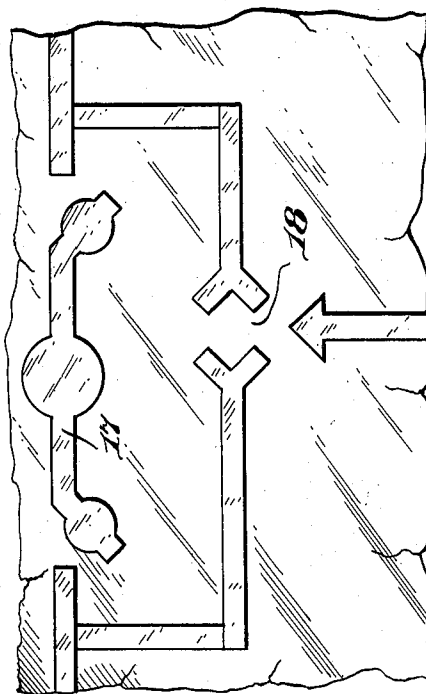
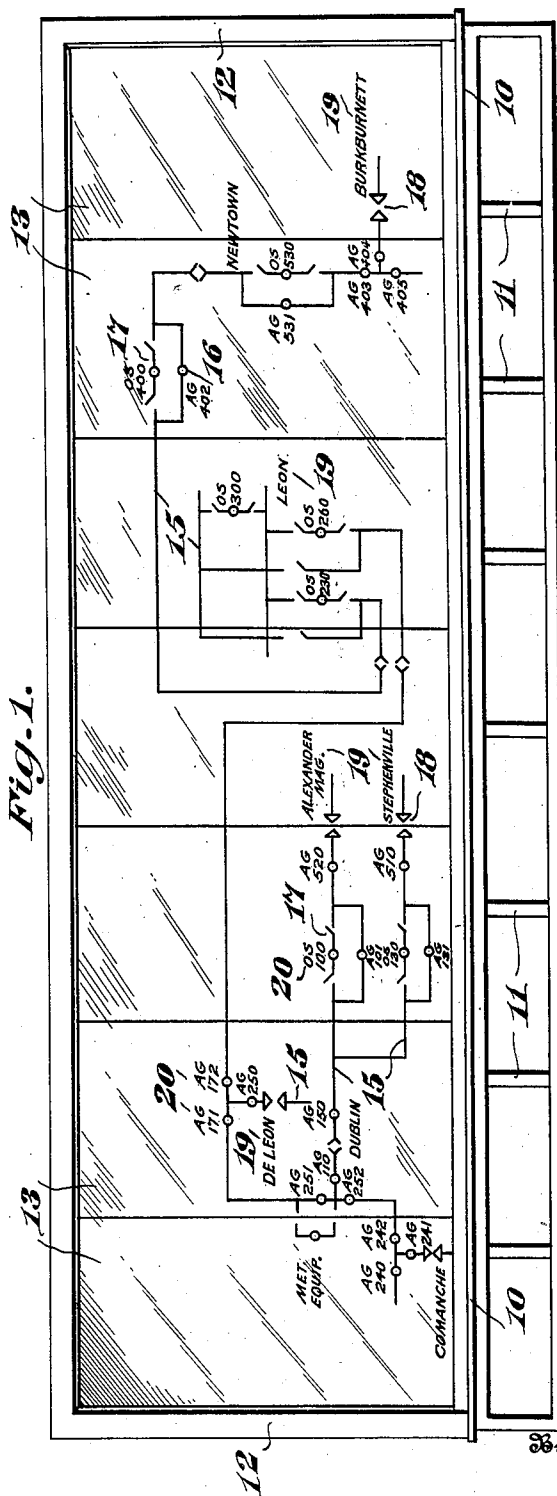
C. A. LILLY ET AL

1,989,237

SERVICE STATION DISPATCH BOARD

Filed Sept. 8, 1931

2 Sheets-Sheet 1



Inventors
C. A. Lilly
J. E. Mills,
Paul Carter
Attorney

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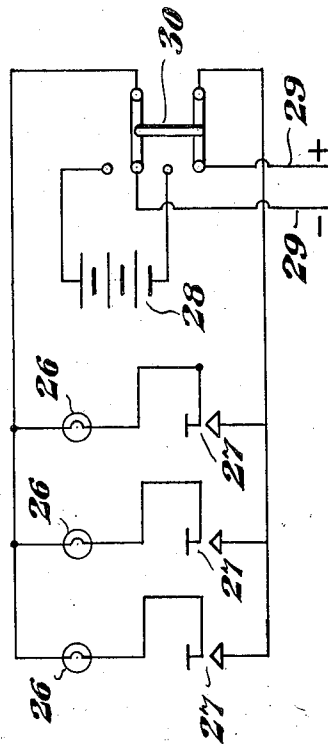
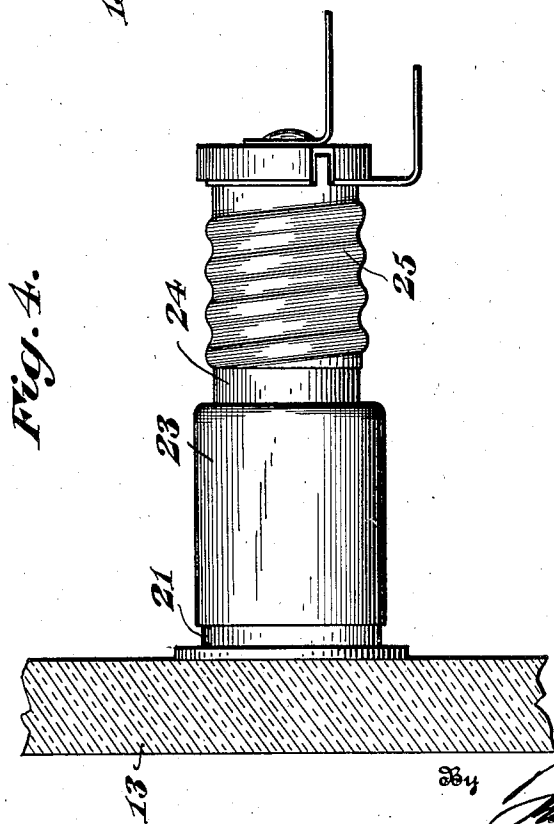
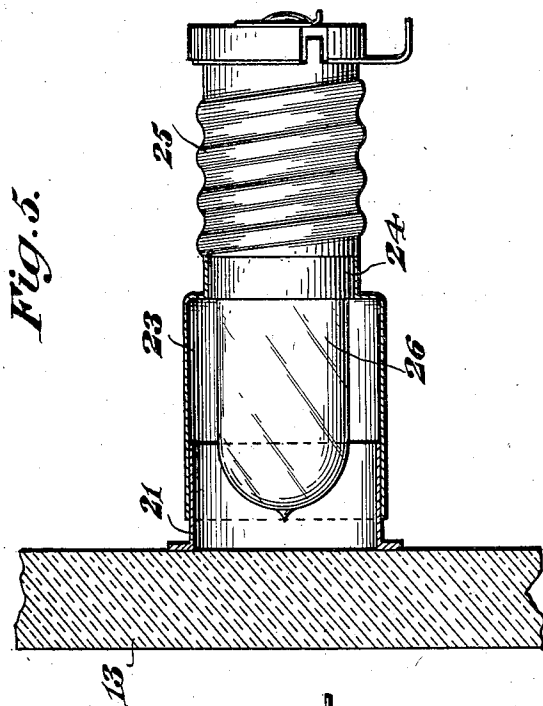
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SERVICE STATION DISPATCH BOARD

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2 Sheets-Sheet 2



Inventors
C. H. Lilly
J. E. Mills,

Paul O. Parker
Attorney

UNITED STATES PATENT OFFICE

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SERVICE STATION DISPATCH BOARD

Clyde A. Lilly and Joseph E. Mills,
Fort Worth, Tex.

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1 Claim. (Cl. 177-311)

This invention relates to indicating devices and has special reference to that type of device preferably termed a dispatcher's board.

In the installation and operation of systems for the distribution of electricity, steam, gas, water and the like pipe system it is desirable to know, at a central controlling station at all times, whether the switches of different sections of electrical distribution systems and the valves between different sections of pipe systems are open or shut. The opening and closing of such valves is controlled by an employee known as a "dispatcher" whose duty it is to see that any section of the system undergoing certain classes of repairs or replacements is shut off from the rest of the system. For instance, it can be readily understood that whenever repairs are to be made on a high tension circuit it is usually necessary to cut off current from that portion of the circuit on which such repairs are to be made. This the dispatcher does and then notifies the repair crew that the line is safe.

One important object of the present invention is to provide an indicating device in the form of a series of panels having an improved arrangement of means for indicating at a glance the condition of switches or valves in such systems.

A second important object of the invention is to provide an improved device of this class having line indications thereon so arranged that they may be readily changed from time to time in accordance with changes made in the system being indicated.

A third important object of the invention is to provide an improved device of this class having novel means for indicating the condition of the switches or valves in the system being displayed.

A fourth important object of the invention is to provide a novel arrangement of signal lights for such a device.

With the above and other objects in view, as will be hereinafter apparent, the invention consists in general of certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings and specifically claimed.

In the accompanying drawings like characters of reference indicate like parts in the several views, and:—

Figure 1 is a front elevation of the device showing the layout of an electric system displayed thereon.

Figure 2 is an end elevation thereof.

Figure 3 is an enlarged detail of a portion of

the device as shown in Figure 1 and illustrating part of the system.

Figure 4 is a section through a portion of one of the panels showing one of the signal light housings used herein.

Figure 5 is a longitudinal section through the housing shown in Figure 4.

Figure 6 is a partial wiring diagram for the signal lamps.

In the embodiment of the invention here disclosed the device has been shown as used in connection with a distribution system for electric current but it will be understood from what follows that it may be applied equally well to systems of piping for the distribution of gaseous and liquid fluids or the system may be used in railroad dispatching to show the location of trains, to indicate the position and location of ships, and to designate the type and character of highways between cities. Wherever, therefore, the term "switch" is used herein to indicate a device for controlling the passage of electricity through some portion of the conductors of the system this term is to be construed as equivalent to and including a valve for controlling the flow of fluid. In like manner the term "conductors" as used in connection with the system disclosed is to be understood to include the piping of a fluid conducting system.

In this embodiment there is provided a platform 10 supported on suitable legs or standards 11 and on the front part of this platform is mounted a frame 12. In this frame 12 is fitted a series of translucent panels 13 which are preferably formed of glass frosted on its rear face. However, the glass may be frosted on both faces if desired or a milky or other semi-opaque glass may be used. Braces 14 extend from the top of the frame 12 to the rear part of the platform and serve to rigidly support the frame.

Displayed on the panels 13 is a design or diagram representing the system of conductors which is used and this design or diagram is formed of lines 15. In actual construction there will, of course, be controlling switches at various places and these controlling switches are indicated by openings formed in the lines. These openings may be of different characters to indicate different kinds of switches. For instance an air gap switch may be indicated by a circle in the line as at 16, an oil switch by the indication shown at 17 and transformers as by the indications 18. In addition to this, locations 19 are placed on the design or diagram in association with the several parts and the switches are likewise pro-

vided with character or class designations 20. The lines and designations may be painted on the glass or strips of suitable material, such as cellophane may be adhesively mounted on the glass.

5 In each case it will be plain that it is easy to make any necessary changes or additions to the design or diagram by scraping off or otherwise removing the parts to be changed.

Behind each of the switch and transformer 10 indications there is a housing member 21 of tubular form and this member is provided on one end with a flange 22 by means of which it may be secured by cement or the like to the glass panel. Slidably mounted on the member 15 21 is a second housing member 23 having a reduced end 24 wherein is mounted a standard miniature lamp socket 25 which thus closes the rear end of the housing. A lamp 26 is screwed into this socket and is thus shielded from observation except through the switch location on the glass panel.

This device is intended to be used in connection with the usual remote control device for controlling the indicating lamps which show or 25 designate whether a particular switch of corresponding number in the field or on the system is open or closed. Since this remote control forms no part of the present invention, it is not here shown nor is it deemed necessary to further 30 describe such remote control arrangement further than to say that the dispatcher has before him a bank of control switches by the operation of which he opens and closes circuits of indicating lamps, which show whether the switch 35 represented by the indicating signal lamps is open or closed. The control switch, when in closed position, with indicating lamp not burning, indicates a burned out indicating lamp, or trouble on the switch, and that will prevent an 40 error being made due to false indication on the dispatcher's board.

Associated with the dispatcher's control switches is a series of switches 27 connected by suitable wiring with the lamps 26 and with a 45 battery 28 and line wires 29, a switch 30 being used to cut the battery into service if current

fails in the line wires. The switches 27 are preferably indexed in correspondence to the indications of the switches on the design or diagram. Normally, the switches 27 are closed and the lamps lit to indicate that current is flowing in 5 the portion of the system controlled by the respective switch. When the dispatcher wishes to cut out any portion of the system he orders switching done and upon advice that instructions 10 have been carried out he operates the appropriate remote control switch and at the same time opens the corresponding switch 27 so that the proper light on the dispatch board is extinguished thus indicating that the portion of the line controlled 15 by the particular switch is "dead" and may safely be repaired.

Obviously, the dispatch board may be located in one place and the switches 27 remote therefrom, if desired.

Obviously also colors may be used on the diagram and in the lamps to indicate voltages or 20 other characteristics.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified. 25

It is obvious that minor changes may be made in the form and construction of the invention without departing from the material principles thereof. It is not therefore desired to confine the invention to the exact form herein shown 30 and described, but it is desired to include all such as properly come within the scope claimed.

What is claimed is:

The combination of a semi-opaque panel having an alterable diagram thereon for designat- 35 ing a line system with controls, a tubular member having a flanged end cemented to one face of the panel and confronting a control point of the system, a tubular housing telescoped over the member and formed with an electric lamp socket, 40 and an electric lamp engaged in the socket for illuminating the entire control point area through said panel and shielded from observation by said member and housing.

CLYDE A. LILLY.
JOSEPH E. MILLS.

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