

P. J. KENAGY.

ELECTRIC SIGN.

APPLICATION FILED JULY 9, 1917.

Patented June 8, 1920.

3 SHEETS—SHEET 1.

1,343,141.

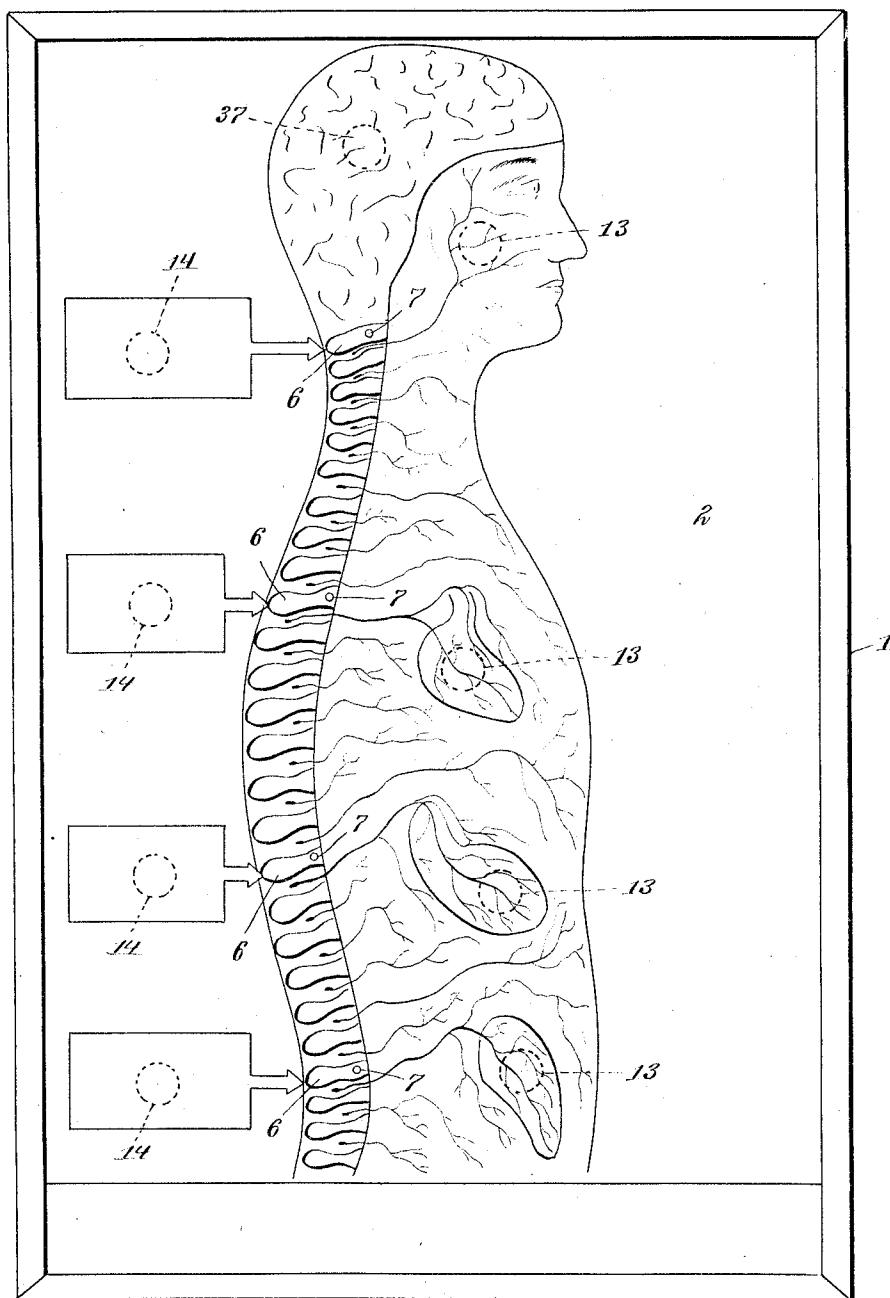


Fig. 1

INVENTOR

P. J. Kenagy,

WITNESSES

C. F. Rudolph

D. B. Phillips

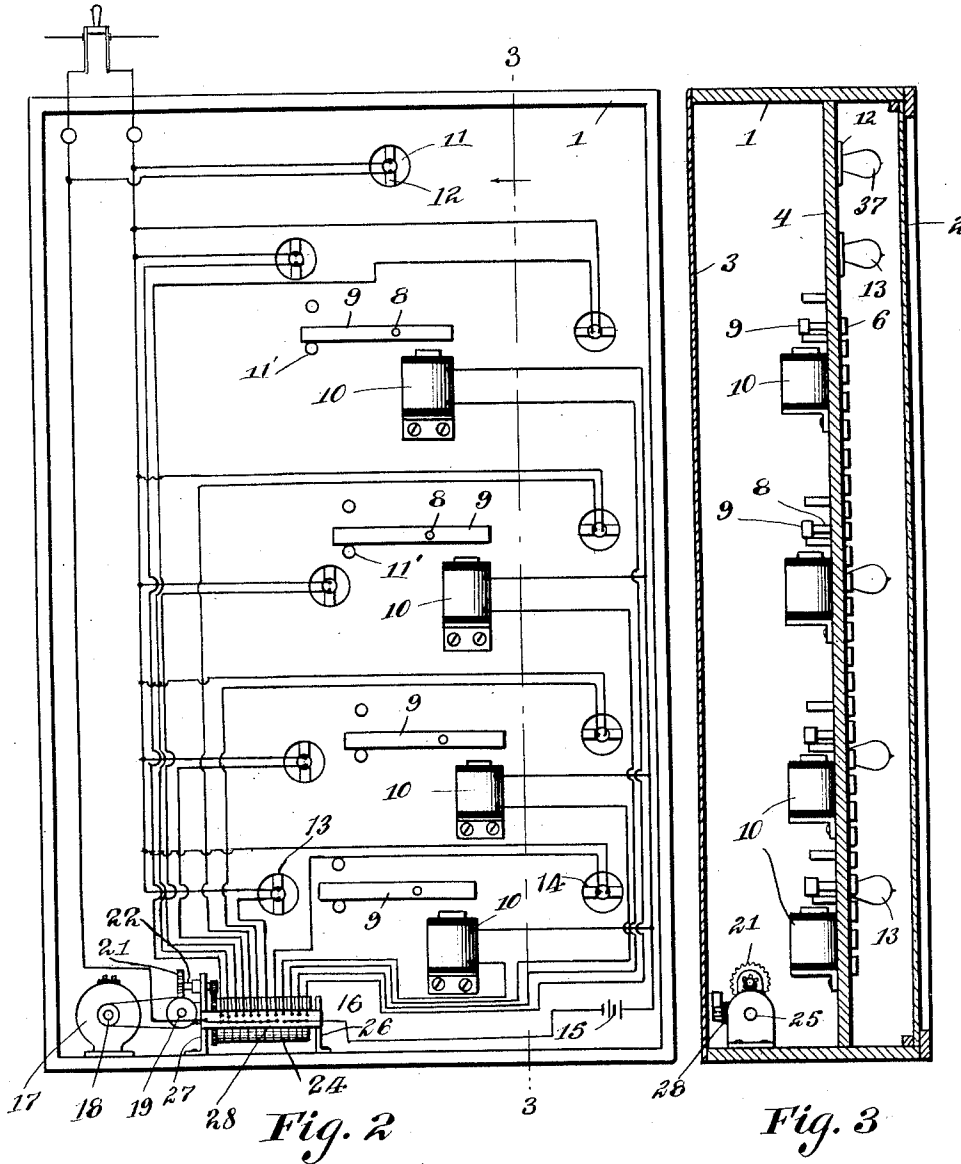
BY

Victor J. Evans

ATTORNEY

1,343,141.

Patented June 8, 1920.
3 SHEETS—SHEET 2.



WITNESSES

G. F. Rudolph

D. B. Phillips

INVENTOR

P. J. Kenagy,

BY *Victor J. Evans*

ATTORNEY

1,343,141.

P. J. KENAGY,
ELECTRIC SIGN,
APPLICATION FILED JULY 9, 1917.

Patented June 8, 1920.
3 SHEETS—SHEET 3.

Fig. 4

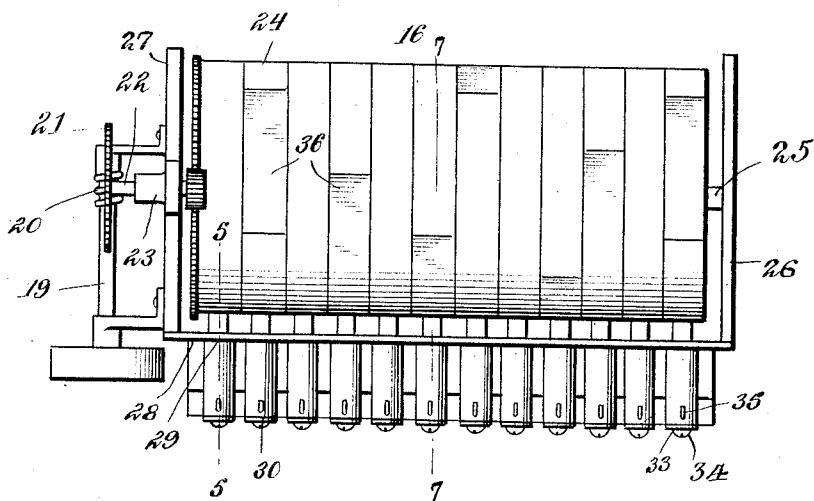
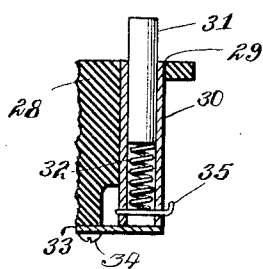


Fig. 5

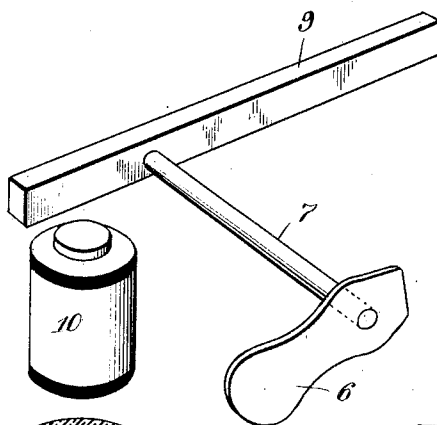
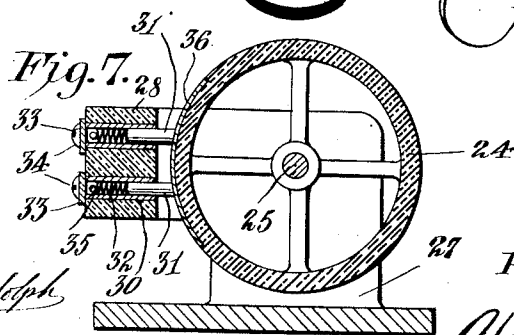


Fig. 6



WITNESSES

C. F. Rudolph
D. B. Phillips

BY

P. J. Kenagy,
Victor J. Evans
INVENTOR
ATTORNEY

UNITED STATES PATENT OFFICE.

PAUL J. KENAGY, OF NEWTON, KANSAS.

ELECTRIC SIGN.

1,343,141.

Specification of Letters Patent.

Patented June 8, 1920.

Application filed July 9, 1917. Serial No. 179,440.

To all whom it may concern:

Be it known that I, PAUL J. KENAGY, a citizen of the United States, residing at Newton, in the county of Harvey and State of Kansas, have invented new and useful Improvements in Electric Signs, of which the following is a specification.

This invention relates to improvements in electric signs and more particularly to signs for medical advertising and demonstrating purposes. It is the purpose of the invention to furnish a sign having elements representing portions of the human body, which will be movable to represent abnormal conditions of such portions, and having illuminated sections representing other portions of the body under the influence of the first mentioned portions, the illumination of said sections to be automatically variable to indicate diseased conditions arising from the abnormal conditions represented by the movable elements. It is further proposed to furnish an improved controlling mechanism for the sign.

A form of the invention which is believed to be preferable is described below and illustrated in the drawings, the novel features of the invention being more broadly referred to in the claims.

In the drawings:—

Figure 1 of the drawings represents a front elevation of the sign.

Fig. 2 is a rear elevation with the back removed.

Fig. 3 is a horizontal section taken on the line 3—3 of Fig. 2,

Fig. 4 represents a fragmentary enlarged view of a portion of the casing and controlling mechanism contained therein,

Fig. 5 shows details of the controlling mechanism,

Fig. 6 illustrates a movable element and the actuating mechanism in detail.

Fig. 7 is a transverse section taken in the plane indicated by the line 7—7 of Fig. 4.

In the drawings, the numeral 1 designates the sign casing or housing, which has a front or face 2 of transparent material and a back 3 which may be removable to permit access to the interior. Secured in the casing 1 between the face 2 and back 3 is a partition 4.

In the present instance the sign is adapted for chiropractic demonstrating purposes, for which the face 2 of the sign is properly colored to represent the human body with

the nerves and various organs exposed, the portion representing the spinal column being left clear. The partition is formed with an opening 11 adjacent each organ represented, and mounted in each opening on a suitable bracket 12 is an electric lamp 13 whereby the particular organ may be illuminated and rendered visible from the front of the sign. Positioned on the partition 4 so as to be visible through the clear portion of the face 2 are a plurality of elements 6 suitably formed and colored to represent the spinal vertebrae. A desired number of the elements 6 are mounted for rocking movement, to indicate abnormal displacement, on shafts 7 extending through and journaled in openings 8 in the partition. Each shaft 7 carries toward the inner end an armature lever 9 disposed for attraction by a magnet 10 mounted on the partition 4, means shown as a counter-weight on the lever 9 being provided to hold the lever 9 against a stop 11' when the magnet is de-energized, to retain the element 6 in normal position. Inscribed on the transparent face of the sign adjacent each movable element is an explanatory legend adapted to be illuminated by a lamp 14 mounted in an opening 11 similarly to the lamps 13.

Suitable conductors and auxiliary devices are provided for connecting the lamps and magnets to convenient sources of current supply. In the present instance the lamps are arranged for connection to an ordinary electric lighting system, and a battery is provided in the casing for energizing the magnets 10. Inserted in the circuits of the magnets 10 and the lamps 13 and 14 are contacts of a controlling device 16 whereby each magnet 10 will be periodically energized to actuate the respective element 6, the normally illuminated lamp 13 being simultaneously darkened, and the normally dark lamp 14 being simultaneously lighted to render the explanatory inscription visible. The device 16 preferably comprises a motor 17 belted to a pulley 18 driving a suitably journaled shaft 19 carrying a worm meshing with a gear 21 on a second shaft 22 extending through and journaled in a support 23 and geared to a drum 24 of insulating material. The drum 24 has a shaft 25 properly mounted for rotation as in the support 26 and a standard 27. Suitably mounted to extend longitudinally in proximity to the surface of the drum is an

insulating bar 28 provided with a plurality of openings 29 arranged in pairs equal in number to the lamps and magnets. Tightly inserted in each opening 29 with the outer end projecting is a conducting bushing 30 or brush holder having slidably inserted therein the usual brush 31, designed to lie maintained in contact with a segment 36 on the drum 24, Fig. 4, by a spring 32 which bears at its outer end against a removable pin 35. The bushing of brush holder bears at its outer end against a conducting plate 33 pivotally attached by a screw 34 as shown to the insulating bar 28. Each pair of contact plates 33 is included in the circuit of a respective lamp or magnet. Peripherally disposed upon the drum 24, and insulated each from each are the conducting segments 36 properly arranged and alternated with blank spaces so that in the rotation of the drum the contacts 33 will be connected and disconnected to energize and deenergize the lamps and magnets at the proper intervals.

By comparison of Figs. 2, 4 and 7, it will be understood that there are twelve divisions in the drum 24; also, that there is one conducting segment 36 in each division, and two brushes 31 positioned to be electrically connected by each segment 36 as it wipes past said brushes. There is one segment 36 for each magnet 10, and the two brushes 31 complementary to that segment are electrically connected to the battery 15. There is also one segment 36, and a complementary pair of brushes 31 for each lamp 13, and one segment 36 and a complementary pair of brushes 31 for each lamp 14. These pairs of brushes are electrically connected with another and appropriate source of electrical energy. See the upper left hand portion of Fig. 2. Therefore with particular reference to the lowermost group of lamp 13, magnet 10 and lamp 14 in Fig. 2, it will be understood that when the segment 36 complementary to the lamp 13 is in position to electrically connect the brushes 31 in circuit with said lamp, the lamp 13 will be caused to glow. Then when the drum 24 is turned to interrupt the electrical connection between the said brushes 31, and the lamp 13 is cut out, the segment 36 complementary to the magnet 10 will be positioned to electrically connect the brushes

31 in circuit with the magnet, and the segment 36 complementary to the lamp 14 will be positioned to electrically connect the brushes 31 in circuit with said lamp 14. In consequence the magnet 10 will be energized, and simultaneously therewith the lamp 14 will be caused to glow. Then when the drum 24 is turned to interrupt the electrical connections to the magnet 10 and lamp 14, respectively, the segment 36 complementary to the lamp 13 will be positioned to electrically connect the brushes 31 in circuit with said lamp 13. This arrangement of segments 36 on the drum 24 is carried out for the four groups, of lamp 13, magnet 10 and lamp 14, each, shown in Fig. 2.

A continuously burning illuminating agent 37 may be provided behind a convenient portion of the face 2 for more effectively attracting attention to the sign.

It is to be understood that the particular form of the invention which I have shown and described is intended merely for illustrative purposes, and is not to be interpreted in a limiting sense.

In the drawings:—

1. A sign of the type described, including a transparent sign surface on which the human body with the desired nerves and organs are outlined, a partition arranged in rear of such surface, members mounted on the partition and visible through the sign surface to represent additional parts of the human body in their relation to the organs represented, an illuminating means for each organ, and means for simultaneously moving the member related to a particular organ and cutting out the illumination of such organ.

2. A sign having a transparent face colored to represent certain organs of the human body, an illuminating means for each organ, a partition within the sign, members mounted on the partition to represent vertebra, the members being visible through the face of the sign and the members being arranged with particular relation to the organs shown and electrically operated means for operating any one of the members and simultaneously affecting the light for the organ with which the operated member corresponds.

In testimony whereof I affix my signature.
PAUL J. KENAGY.