Aug. 29, 1950 J. W. SPONSLER 2,520,445

MODEL RAILROAD SIGNAL

Filed May 17, 1948

Fig. 1.

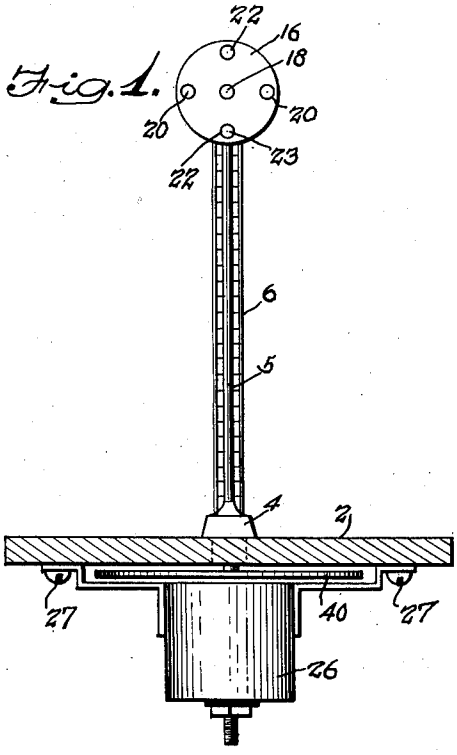


Fig. 2.

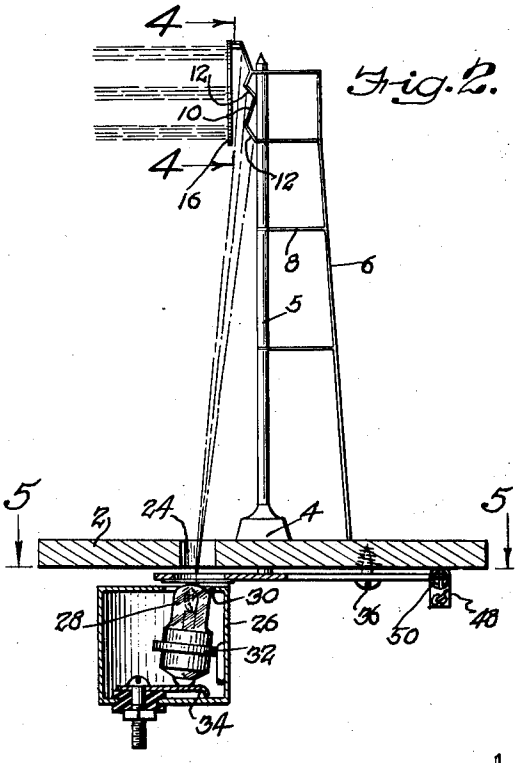


Fig. 3.

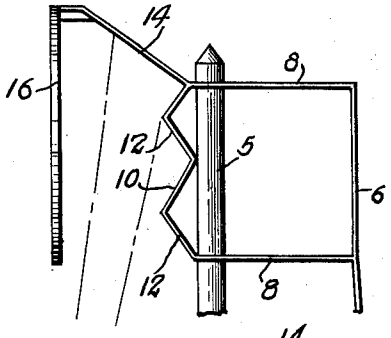


Fig. 4.

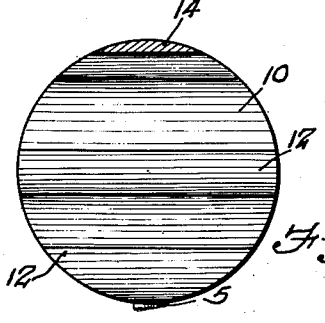
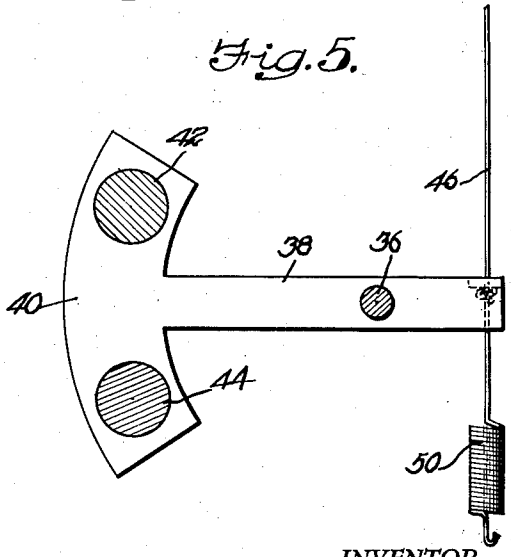


Fig. 5.



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UNITED STATES PATENT OFFICE

2,520,445

MODEL RAILROAD SIGNAL

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Application May 17, 1948, Serial No. 27,543

2 Claims. (Cl. 177—329)

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My present invention relates to an improved model railroad signal of the type conventionally employed wherein a circular plate is mounted for visibility upon a standard and formed with a vertical and horizontal row of apertures to be illuminated to show a vertical line or a horizontal line and the selection of the line to be lighted according to my invention is made by manual actuation of a device to effect a change in polarity of the light rays so that one set of rays will illuminate one line to indicate one signal position and the other set of rays will illuminate the other signal position from a single light source.

The use of my invention will eliminate the requirement for many bulbs and intricate wiring and it will be obvious that while I describe my signal as applicable to model railroads it is not limited thereto and may be applied to full size signals on railroads and for other purposes.

In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention according to the best mode I have thus far devised, but it will be understood that various changes and alterations may be made in the exemplified structure within the scope of the appended claims.

In the drawings:

Fig. 1 is a front elevational view of the device of my invention through a section of a base upon which it is mounted.

Fig. 2 is a longitudinal vertical sectional view thereof.

Fig. 3 is a partial side elevational view, enlarged, of the signal plate and reflector.

Fig. 4 is a sectional view at line 4—4 of Fig. 2.

Fig. 5 is a sectional view at line 5—5 of Fig. 2.

Referring now to the drawings, I have illustrated the present preferred embodiment of my invention as mounted upon a platform 2 as conventionally used for model or toy railroads. A base 4 for standard or post 5 is suitably secured and this post is provided with the usual ladder 6 supported by brackets 8.

Upon the upper pair of brackets I secure a reflector 10 having spaced angularly disposed faces 12 and the upper support-face 14 all angled to receive and reflect light rays from below, horizontally forward. On the support-face 14 and vertically depending therefrom and in aligned position in front of the reflector I employ a disk or plate 16 having a central opening or aperture 18 and diametrically arranged pairs of apertures 20 and 22.

The pairs of apertures may be respectively covered with red and green filters if desired the red showing a horizontal line and the green a vertical line when illuminated. The apertures are provided with transparencies of polarized film 23, the red for instance responsive to horizontal rays and the green to vertical rays.

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At a point below the reflector and apertured disk and slightly forward thereof on the platform I provide an opening or cutout 24 and below this opening and spaced therefrom I secure a housing 26 supported at 27 for light bulb 28 aligned with aperture 30 and secured in bracket 32 in contact with the electrical connector 34 in a suitable electric circuit.

Pivoted at 36 on the under side of platform 2 I secure a bar 38 having an arcuate arm 40 thereon formed with apertures and two transparencies therein, one 42 passing vertical light rays and the other 44 passing horizontal light rays.

A cord 46 secured to extension 48 permits the operator to pivot the bar against the tension of spring 50 and it will be clear that the bar is moved to position selectively either of the transparencies 42 or 44 over the light bulb 28 to select the row of colored signal apertures to be illuminated.

Thus with a single bulb and its simple wiring circuit the operator may with facility control the signal and effect a realistic simulation of conventional signal towers.

Normally the center aperture is not covered with polaroid film and will respond to light rays from either aperture 42 or 44.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a model railroad signal, a horizontally-disposed platform, a base secured to said platform, a vertically-disposed post having its lower end secured to said base, a reflector provided with a plurality of angularly-disposed faces and supported by the upper end of said post, a vertically-disposed disc spaced forwardly of said reflector and supported by said post, there being an opening arranged centrally in said disc, said disc having a plurality of apertures spaced about said opening, a transparent polarizing film arranged over each of said apertures, and said films being differently colored to provide correspondingly different signals, a light source mounted below said platform, there being a cutout arranged in said platform adjacent said base for the passage therethrough of two groups of polarized light rays from said light source, and one group is

polarized in one plane, while the other group is polarized in a plane substantially at right angles to said one plane, a bar pivotally connected to said platform, an arcuate arm carried by said bar, there being a pair of spaced apertures arranged in said arcuate arm and mounted for movement into and out of registry with said cut-out, and a transparent polarizing film arranged over each of the apertures in said arcuate arm, and the planes of polarization correspond respectively to the planes of polarization of said groups of light rays and the opening that is centrally arranged in said disc is free of said film to permit the light rays from each group to pass outwardly of said opening to provide a somewhat continuous line of light rays in either plane.

2. The apparatus as described in claim 1, and further including a manually-operable means for pivotally moving said bar.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,802,459	Caruso	Apr. 28, 1931
2,165,974	Land	July 11, 1939
2,238,207	Ames, et al.	Apr. 15, 1941