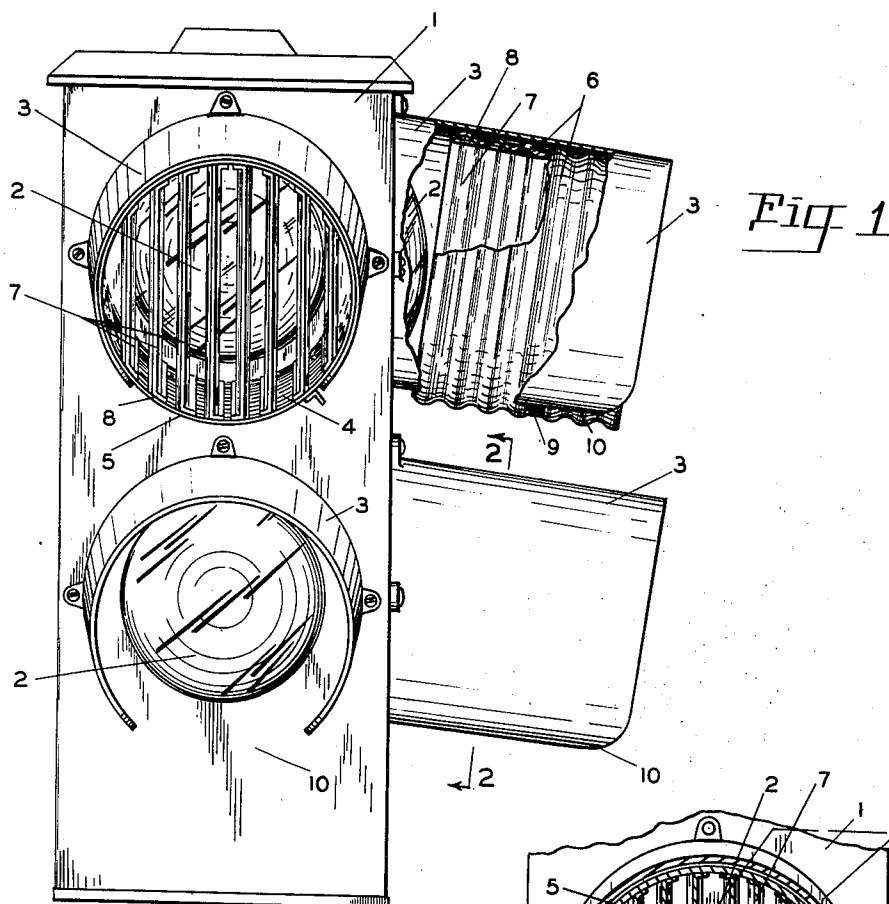


Feb. 6, 1951

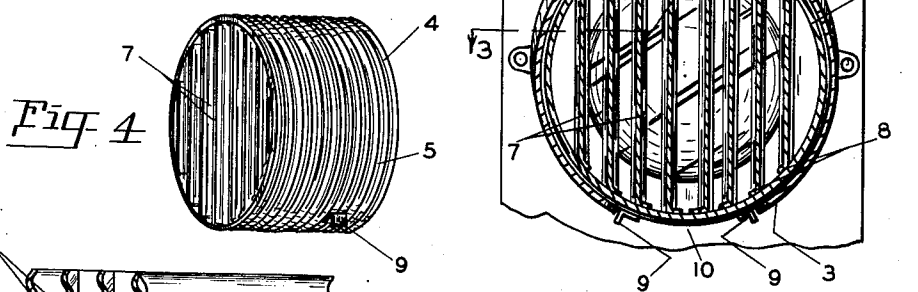
F. T. FOWLER  
SIGNAL LIGHT RAY DIRECTOR

2,540,389

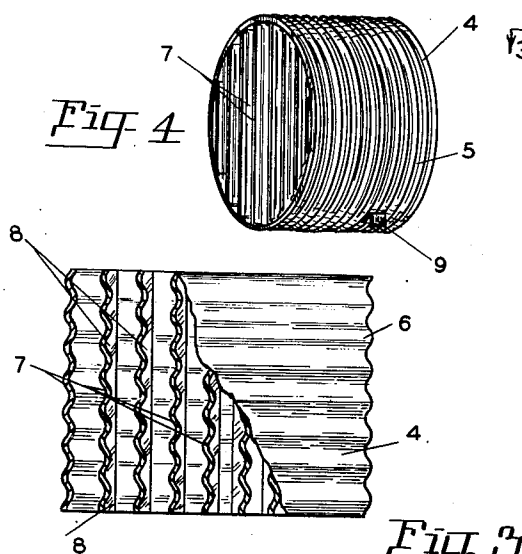
Filed Feb. 21, 1946



*Fig 1*



*Fig 2*



*Fig 3*

INVENTOR.  
FRED T. FOWLER  
BY *[Signature]*  
ATTORNEY

# UNITED STATES PATENT OFFICE

2,540,389

## SIGNAL LIGHT RAY DIRECTOR

Fred T. Fowler, Portland, Oreg., assignor of one-half to Elwood Wiles, Portland, Oreg.

Application February 21, 1946, Serial No. 649,365

3 Claims. (Cl. 240—46.53)

1

This invention relates to signal light ray directors and is particularly adapted to be used in connection with traffic signals and the like.

The primary object of the invention is to prevent the light rays of the signal from being read at an angle other than straight into the signal.

A further object of the invention is to provide a light ray director that can be adapted to present equipment, especially in connection with the visors of traffic signals.

These and other incidental objects will be apparent in the drawings, specification and claims.

Referring to the drawings:

Figure 1 shows my invention installed in the visors of a standard traffic signal, part of one of the visors broken away illustrating the method of installing the light ray director.

Figure 2 is a sectional view, taken through one of the visors having my new and improved ray director installed therein, taken on line 2—2 of Figure 1.

Figure 3 is a plan partially in section view, taken on line 3—3 of Figure 2 of the director removed from the visor of the signal.

Figure 4 is a perspective side view of my new and improved light ray director.

In the drawings:

A standard traffic signal is indicated by numeral 1, having the usual colored lenses 2 and the visors 3. My invention consists of inserting my new and improved light ray director 4 into the visors 3. My light ray director consists of a ring 5 made of corrugated material, the corrugations 6 running around the drum 5 illustrated in Figures 3 and 4.

Secured vertically of the ring 5 and longitudinally of the same are corrugated partitions 7. They may be riveted or welded as at 8 to the ring 5, the corrugations running vertically of the partitions. The object and purpose of the corrugations is to prevent any of the light rays given off by the lenses 2 being observed from an angle of the center line of the visor. The corrugations of the partitions 7 and the ring 5 kill any side reading of the light, by reflecting the rays back and forth from one corrugation to another.

I have experimented with straight wall partitions 7 and outer rings 5, and I have found that unless these elements are corrugated that a side reading is still possible. The object of preventing any angle reading of the signals is that it is desirable to prevent the observer from getting any signal that is not direct from the face of the signal facing him, therefore when my new and improved light ray director device is installed the corrugated partitions 7 and the corrugated ring 5 prevents any visibility of the light what-

2

ever unless the observation is directly in front of the signal that is intended to be observed by him.

In order to install the device correctly with the partitions 7 standing vertically, stops or guides 9 register with the opening 10 which exists on the underside of all of the visors used on signals. These stops register with this opening and guide the device into place so as stated above the partitions 7 will be standing in a vertical position.

I do not wish to be limited to the exact mechanical structure as shown, as other mechanical equivalents may be substituted still coming within the scope of my claims.

What I claim as new is:

1. A light ray director for traffic signals of the type including a housing, a signal light and a visor extending from the housing surrounding the illuminated area, said ray director including a cylindrical circumferentially corrugated hollow element fitting against the interior wall of the visor, and a plurality of corrugated vertically disposed spaced apart partitions secured to the inner wall of the cylindrical hollow circumferential corrugated element, said vertically disposed spaced apart partitions extending longitudinally throughout the length of the cylindrical circumferentially corrugated hollow element.

2. A construction as defined in claim 1, wherein the vertically disposed partitions are corrugated on both sides in parallelism with the circumferential corrugations on the element.

3. A construction as defined in claim 1, wherein cooperating means are provided between the visor and the hollow cylindrical circumferential element to maintain the corrugated partitions in vertical relation in the visor when applied, said means including stops on the element, and a cut-out formed in the visor to present edges to be engaged by the stops.

FRED T. FOWLER.

### REFERENCES CITED

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

### UNITED STATES PATENTS

Number	Name	Date
1,361,018	Conn	Dec. 7, 1920
1,549,781	McCarley	Aug. 18, 1925
1,593,402	Halvorson	July 20, 1946
1,804,719	Timmons	May 12, 1931
2,237,815	Fulton	Apr. 8, 1941

### FOREIGN PATENTS

Number	Country	Date
277,727	Great Britain	Sept. 29, 1927
531,611	France	Oct. 27, 1921