Dec. 19, 1961 B. SPANGLER 3,013,475

SIGN

Filed Jan. 7, 1959

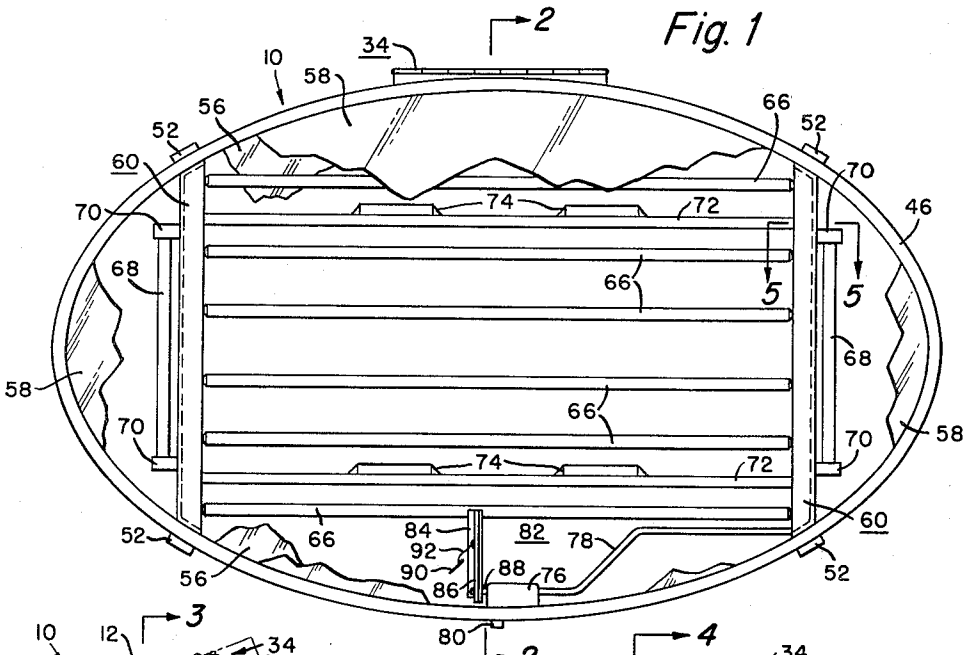

Fig. 1

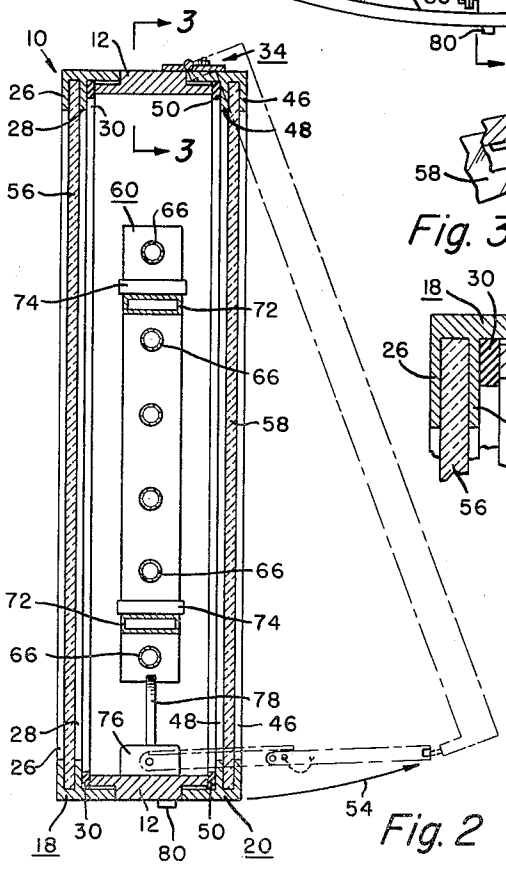

Fig. 2

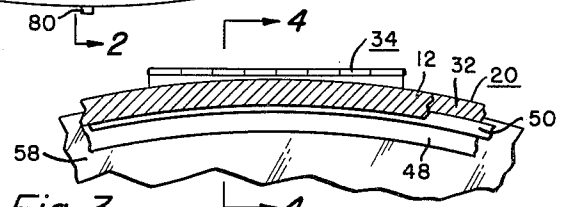

Fig. 3

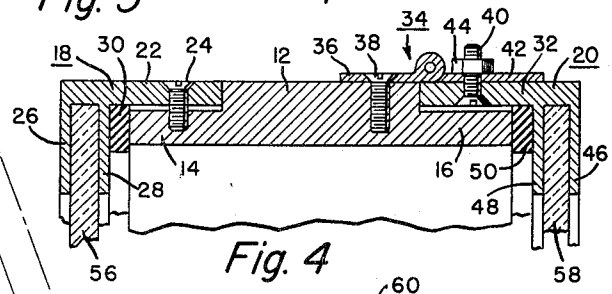

Fig. 4

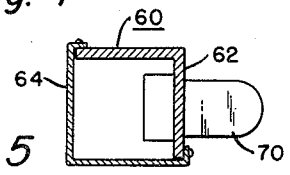

Fig. 5

INVENTOR.
BERNARD SPANGLER
BY Arthur H. Seidel
ATTORNEY

United States Patent Office 3,013,475
Patented Dec. 19, 1961

3,013,475

SIGN

Bernard Spangler, 104 S. 56th St., Philadelphia, Pa.

Filed Jan. 7, 1959, Ser. No. 785,452
2 Claims. (Cl. 40—132)

This invention relates to a sign, and more particularly to a double faced, internally illuminated sign.

Double faced, internally illuminated signs comprise a frame having a pair of spaced faces of transparent or translucent material mounted thereon. The illuminating means, such as electric light bulbs, are mounted on the frame between the faces. The frame of such a sign should not only be of strong construction, but should also be of such a construction that it is easy and relatively inexpensive to manufacture. Also, the sign should be constructed so as to provide easy access to the illuminating means so that burnt out light bulbs can be easily replaced.

It is an object of the present invention to provide a double faced, internally illuminated sign.

It is another object of the present invention to provide a double faced, internally illuminated sign in which one of the faces is hingedly mounted on the frame to permit easy access to the illuminating means within the sign.

It is a further object of the present invention to provide a double faced, internally illuminated sign which is of strong construction, and which is easy and relatively inexpensive to manufacture.

Other objects will appear hereinafter.

For the purpose of illustrating the invention there is shown in the drawings a form which is presently preferred; it being understood, however, that this invention is not limited to the precise arrangements and instrumentalities shown.

Referring to the drawing wherein like reference characters refer to like parts:

FIGURE 1 is a front elevation view, partially broken away, of the sign of the present invention.

FIGURE 2 is a sectional view taken along line 2—2 of FIGURE 1.

FIGURE 3 is a sectional view taken along line 3—3 of FIGURE 2.

FIGURE 4 is a sectional view taken along line 4—4 of FIGURE 3.

FIGURE 5 is a sectional view taken along line 5—5 of FIGURE 1.

Referring to the drawing, the sign of the present invention is generally designated as **10**.

Sign **10** comprises an annular metal frame **12** of rectangular transverse cross-section. Frame **12** has a pair of annular flanges **14** and **16** extending outwardly from the sides of the frame **12**. The inner surfaces of the flanges **14** and **16** are flush with the inner surface of the frame **12**. Frame **12** is shown to be in the form of an ellipse. However, the frame **12** can be in the form of a circle, rectangle, or any other desired shape.

A pair of face mounting bands **18** and **20** are secured to the flanges **14** and **16** of frame **12**. Face mounting bands **18** and **20** are each F-shaped in transverse cross-section, and are of the same annular shape as the frame **12**.

The leg **22** of face mounting band **18** is mounted around the flange **14** of frame **12**, with the outer surface of the leg **22** being flush with the outer surface of frame **12**. A plurality of circumferentially spaced screws **24** extend through the leg **22** and are threaded into the flange **14** to secure the face mounting band **18** to the frame **12**. The arms **26** and **28** of the face mounting band **18** extend inwardly across the end of the flange **14**. An annular gasket **30** is compressed between the inner arm **28** of face mounting band **18** and the end of flange **14** to seal the face mounting band **18** to the frame **12**.

The leg **32** of face mounting band **20** is mounted around the flange **16** of frame **12**, with the outer surface of leg **32** being flush with the outer surface of frame **12**. An elongated hinge **34** extends along the top of sign **10**. One strap **36** of the hinge **34** is secured to the outer surface of frame **12** by screws **38**. Bolts **40** extend upwardly through the leg **32** of face mounting band **20** and the other strap **42** of the hinge **34**. Nuts **44** are threaded on the bolts **40** to secure the strap **42** of hinge **34** to the face mounting band **20**. Thus, the face mounting band **20** is hingedly secured to the frame **12**. The arms **46** and **48** of the face mounting band **20** extend inwardly across the end of flange **16**. An annular gasket **50** is compressed between the inner arm **48** of face mounting band **20** and the end of flange **16** to seal the face mounting band **20** to the frame **12**. A plurality of clamps **52** are mounted around the outer surface of frame **12** and face mounting band **20**. Clamps **52** may be of any releasable type clamp which can clamp the face mounting band **20** tightly to the frame **12**, but upon being released will permit the face mounting band **20** to be swung outwardly as indicated by arrow **54** in FIGURE 2.

A face plate **56** of a transparent or translucent material, such as a plastic, is mounted across the face mounting band **18**, with the edge of the face plate **56** fitting between the arms **26** and **28** of the face mounting band **18**. A similar face plate **58** is mounted across the face mounting band **20** with the edge of the face plate **58** fitting between the arms **46** and **48** of the face mounting band **20**. Face plates **56** and **58** have the advertising matter painted or otherwise applied thereto.

A pair of spaced, parallel mounting posts **60** are secured to the inner surface of the frame **12**. Mounting posts **60** extend vertically across the frame **12** adjacent the ends of the frame **12**. As shown in FIGURE 5, each of the mounting posts **60** comprises a pair of angle rods **62** and **64** secured together at their ends to form a hollow post of square transverse cross-section.

A plurality of fluorescent light tubes **66** extend horizontally between the mounting posts **60**. Light tubes **66** are mounted in sockets carried by the mounting posts **60**. A fluorescent light tube **68** extends vertically along the outside of each of the mounting posts **60**. Light tubes **68** are mounted in sockets **70** carried by the mounting posts **60**. A pair of metal wiring troughs **72** are mounted between the mounting posts **60**. Wiring troughs **72** carry the ballast **74** for the light tubes **66** and **68** as well as the electrical wiring to the light tube sockets. An outlet box **76** is mounted on the inner surface of frame **12** at the bottom of the sign **10**. A conduit **78** extends between the outlet box **76** and one of the mounting posts **60** and carries the electrical wiring from the light tube sockets to the outlet box **76**. Outlet box **76** has an outlet **80** extending through the frame **12**. Outlet **80** permits a cable from the source of electrical energy to be passed into the outlet box **76** where the cable is connected to the wiring for the light tube sockets.

A folding arm support **82** is connected between the frame **12** and the face mounting band **20** at the bottom of the sign **10**. Folding arm support **82** comprises an angle rod **84** and a straight rod **86**. One end of the angle rod **84** is pivotably connected to one end of the straight rod **86**. The other end of the angle rod **84** is pivotably mounted on a pin **88** extending from an upright wall on the outlet box **76**. The other end of the straight rod **86** is connected to the face mounting band **20**. A locking pin **90** is secured to the folding arm support **82** by a chain **92**.

When it becomes necessary to replace one of the light

tubes **66** or **68** or do any other type of repair work in the sign **10**, the clamps **52** are released. The face mounting band **20** is then swung outwardly from the bottom of the sign **10** as indicated by arrow **54** in FIGURE 2 to a position shown in phantom in FIGURE 2. As the face mounting band **20** is swung outwardly, the rods **84** and **86** of the folding arm support **82** are pulled outwardly with the face mounting band **20**. This unfolds the rods **84** and **86** until the rods **84** and **86** are in alignment. The locking pin **90** is then inserted through aligned holes in the rods **84** and **86** to secure the rods **84** and **86** in the aligned position. Thus, the folding arm support **82** folds the face mounting band **20** away from the frame **12** so that the operator has both hands free to do whatever work is necessary within the sign **10**. When the operator completes the work within the sign, the locking pin **90** is removed, and the face mounting band **20** swung back against the frame **12**. The clamps **52** are then secured to clamp the face mounting band **20** tightly to the frame **12**. Thus there is provided ease of access to the interior of the sign **10**.

The frame **12** of the sign **10** of the present invention is made from a single extruded strip of metal which is bent to the desired shape and the ends secured together. The face mounting bands **18** and **20** are made from identical extruded strips of metal which are also bent to the desired shape. The mounting posts **60** are likewise made from identical strips of metal which are secured together. Thus, the sign **10** of the present invention is made of a minimum number of different parts which are easy to make and assemble, so that the sign **10** is relatively inexpensive to manufacture.

The present invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof and, accordingly, reference should be made to the appended claims, rather than to the foregoing specification as indicating the scope of the invention.

I claim:

1. A sign comprising an annular metal frame having annular flanges extending outwardly from opposite sides of the frame, the inner peripheral surface of said flanges being coextensive with the inner peripheral surface of said frame, a separate annular face mounting band secured around each of said flanges, each of said bands including a leg mounted around its respective flange with the outer surface of the leg being substantially flush with the outer surface of the frame and a pair of arms projecting inwardly across the end of the respective flange, one of said bands being fixedly secured to the frame, the other band being hingedly secured to the top of the frame between said flanges by a hinge means, a separate faceplate of a translucent material mounted across each of said face supporting bands with the edge of the plates fitting between the arms of its respective band, fluorescent luminating means supported by posts disposed on said frame between said faceplates, an upright wall on a bottom wall of said frame substantially equidistant from the ends of said frame, said upright wall being substantially perpendicular to said plates, a folded arm support comprising a pair of rods pivotably secured together, the free end of one rod being pivotably secured to said upright wall, the free end of said other rod being pivotally secured to said other band, latch means solely on said rods for latching said support and said other band in an extended position, and latch means on said frame for latching said other band in a position substantially parallel to said one band.

2. In a sign as set forth in claim 1 wherein said posts are a pair of spaced upright posts spaced from the ends of said frame, said luminating means including a plurality of fluorescent light tubes horizontally disposed between said posts, and at least one wire trough mounted between said posts, and ballast for said tubes being mounted on and supported by said trough.

References Cited in the file of this patent

UNITED STATES PATENTS

1,087,574	Dawes	Feb. 17, 1914
1,361,457	Golden	Dec. 7, 1920
1,604,622	Weinstein	Oct. 26, 1926
2,029,221	Burgess et al.	Jan. 28, 1936
2,455,020	McQuaid	Nov. 30, 1948
2,543,008	French	Feb. 27, 1951
2,562,553	Howenstine	July 31, 1951
2,620,580	Dwindell	Dec. 9, 1952
2,626,473	Howenstine	Jan. 27, 1953
2,769,263	Wamser	Nov. 6, 1956
2,833,069	Cairns	May 6, 1958
2,879,614	Baldanza	Mar. 31, 1959

FOREIGN PATENTS

24,774	Great Britain	of June 8, 1911
746,958	Germany	Sept. 1, 1944