

G. M. LYNES.
ADVERTISING DISPLAY DEVICE.
APPLICATION FILED JUNE 3, 1920.

1,386,126.

Patented Aug. 2, 1921.
3 SHEETS—SHEET 1.

Fig. 1.

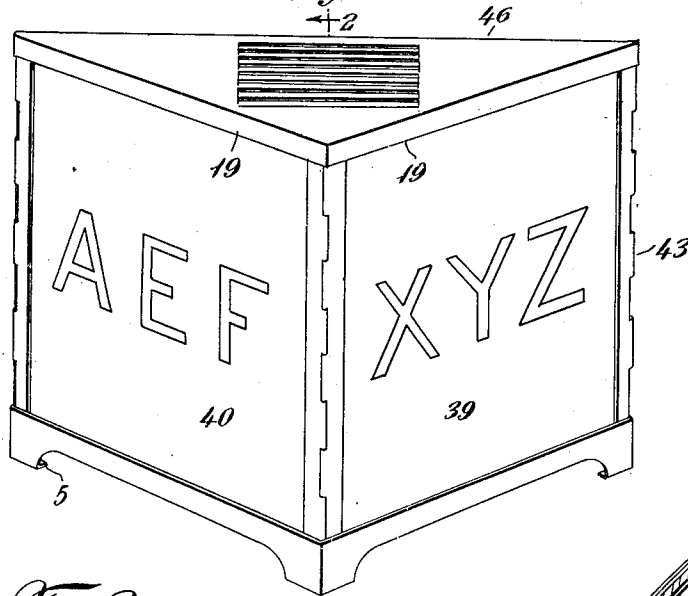


Fig. 2.

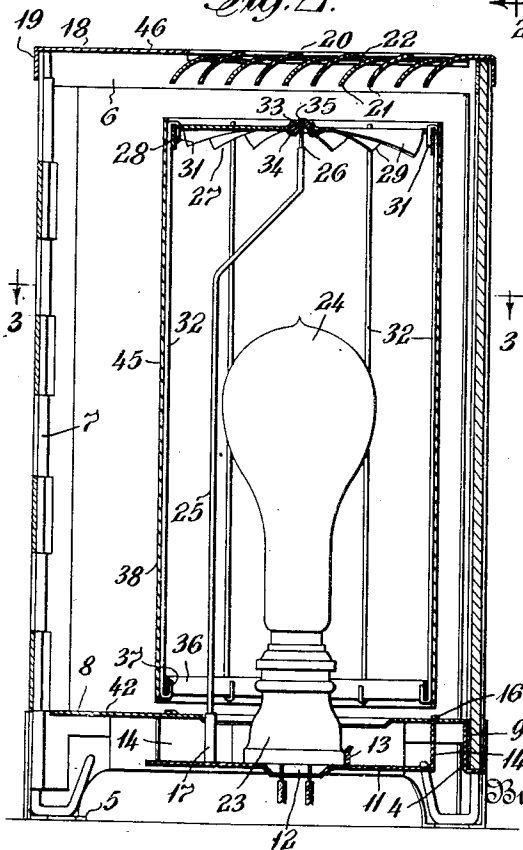
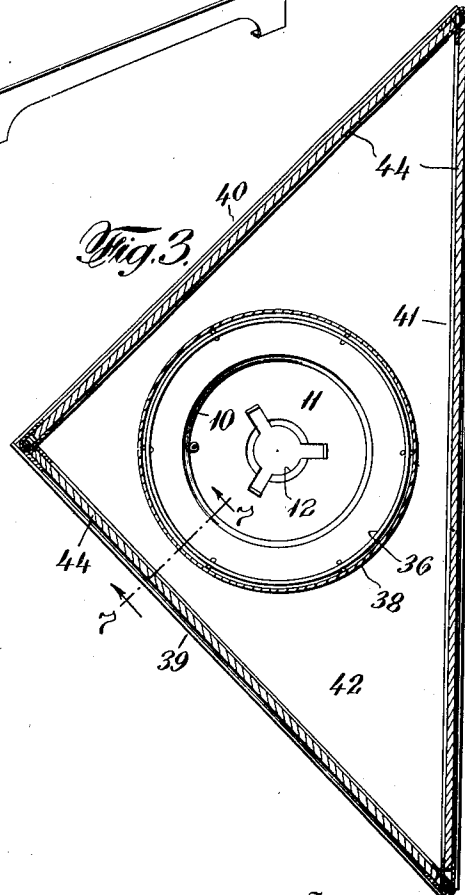


Fig. 3.

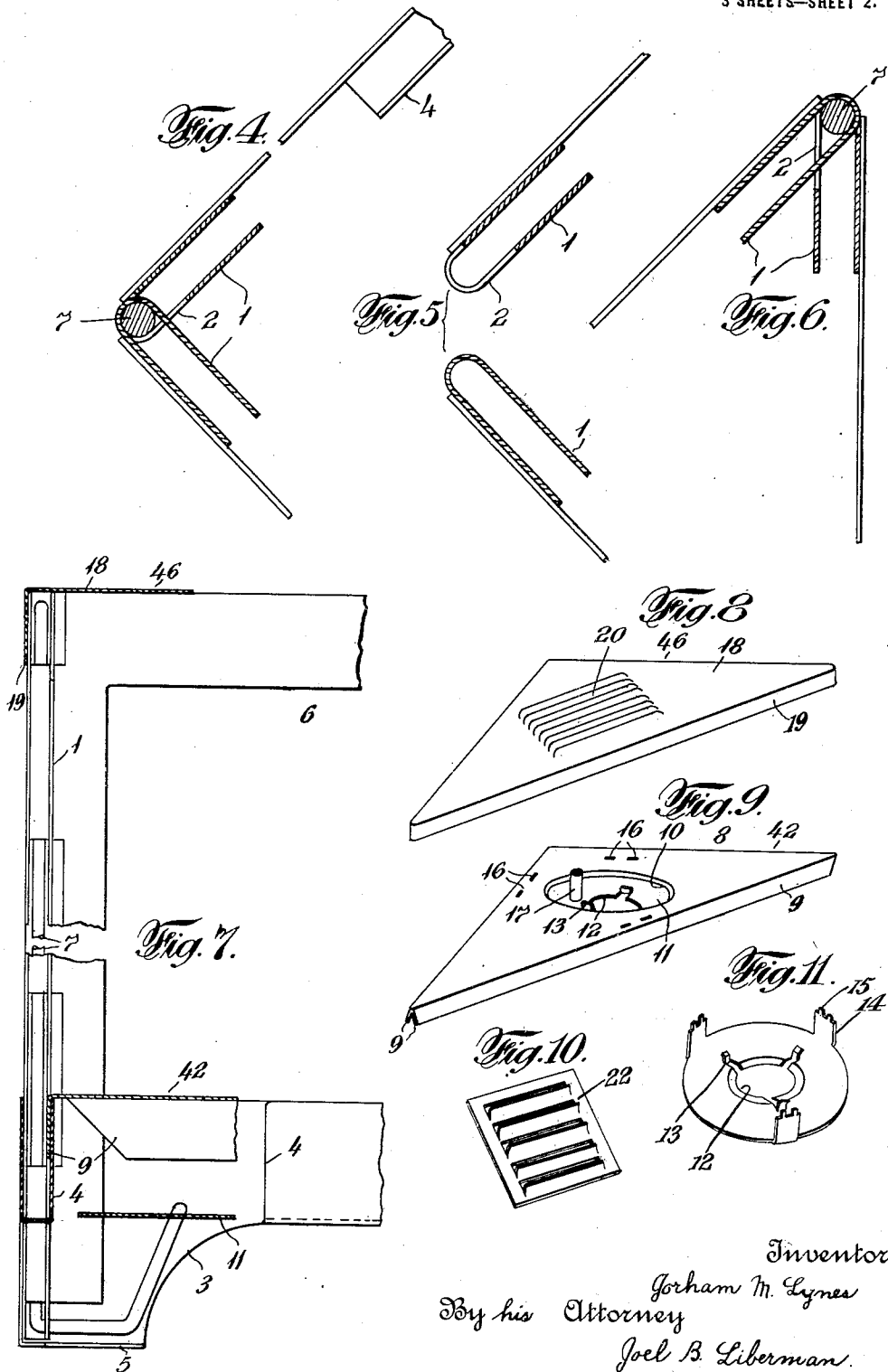


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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

Fig. 12.

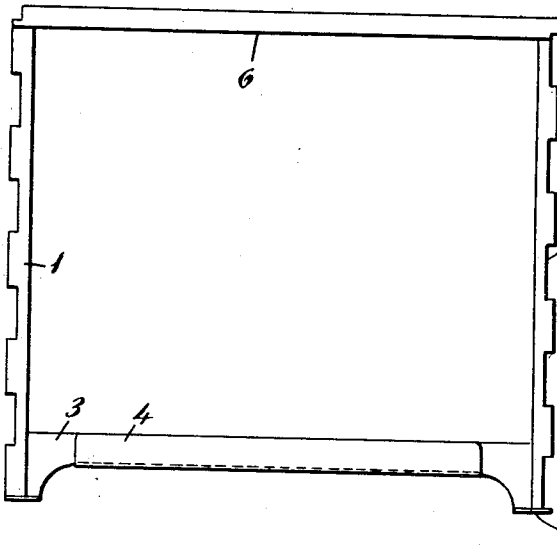


Fig. 13.

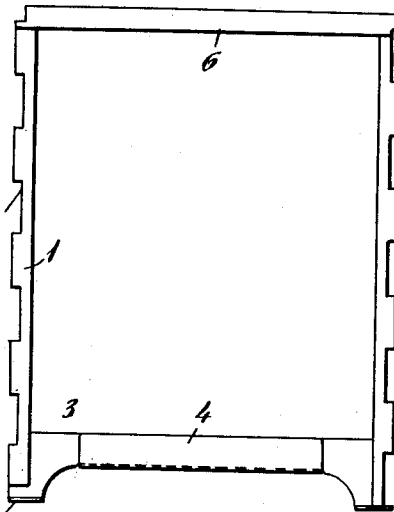


Fig. 14.



Fig. 15.

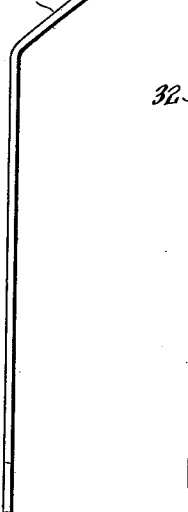
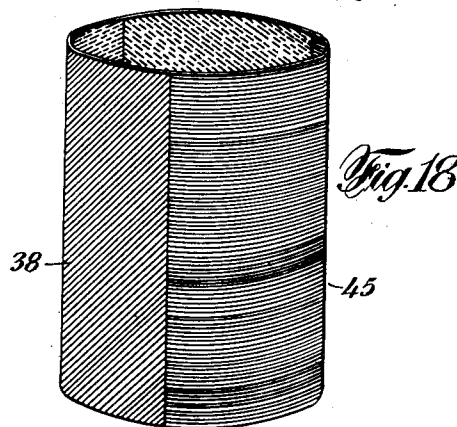
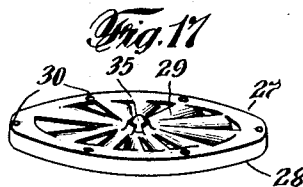
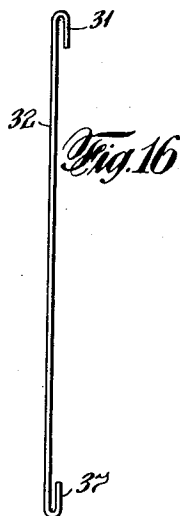


Fig. 16.



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UNITED STATES PATENT OFFICE.

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ADVERTISING DISPLAY DEVICE.

1,386,126.

Specification of Letters Patent.

Patented Aug. 2, 1921.

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To all whom it may concern:

Be it known that I, GORHAM M. LYNES, a citizen of the United States, and resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Advertising Display Devices, of which the following is a specification.

This invention relates to illuminated display apparatus for advertising purposes and more particularly to that class of apparatus wherein changing vari-colored lights are thrown on display fields by a rotating vari-colored mantle surrounding a light source and caused to rotate by air currents created by the heat emanating therefrom.

In the preferred form of the invention the framework and the rotating member are of knockdown or collapsible construction making transportation possible in a simple package, while the apparatus can be assembled, disassembled or the members changed quickly and simply without the use of tools. Other important features will appear as the invention is described.

In the accompanying drawings:—

Figure 1 is a front view in perspective of the apparatus.

Fig. 2 is a vertical mid-section taken on line 2—2 of Fig. 1.

Fig. 3 is a horizontal section taken on line 3—3 of Fig. 2 with light source and socket removed.

Fig. 4 is a fragmentary detail of the left apex shown in Fig. 3.

Fig. 5 is a similar view as Fig. 4 with the locking rod removed.

Fig. 6 is a view of the uppermost corners of Fig. 3 enlarged.

Fig. 7 is a fragmentary detail taken on line 7—7 of Fig. 3.

Fig. 8 is a detached perspective of the top member or cover.

Fig. 9 is a detached perspective of the bottom member.

Fig. 10 is a detached perspective of a separate ventilator member removed from top member.

Fig. 11 is a detailed perspective of the lower part of the bottom member removed, from main part of member.

Fig. 12 is an inside view of the rear framework.

Fig. 13 is an inside view of one of the duplicate front frameworks.

Fig. 14 is a view of one of the three framework supporting rods.

Fig. 15 is a view of the revolving member support or bracket.

Fig. 16 is a view of one of the six detachable side rods of the rotating member framework.

Fig. 17 is a detached perspective of the top of the rotating member.

Fig. 18 is a detached perspective of the detachable vari-colored mantle.

Fig. 19 is a detached perspective of the bottom-ring of the rotating member.

One practical design and construction of my invention is illustrated in the drawings and is described as follows:

The device consists of a box 43, as shown in Fig. 1, made up of collapsible sheet metal parts. The two fronts are shown in Fig. 13, the rear frame in Fig. 12, the bottom 42 in Fig. 3 and the top 46 in Fig. 8.

The frames are made up of U-shaped side pieces 1 alternately cut out at the base of the U at 2 to form a piano hinge construction, bottom pieces 3, with a turned up lip 4, to form a bottom groove and turned over legs 5 and a plain top piece 6. These separate parts are welded or soldered together to form the complete frame, and the side frames are fastened together when erected by the supporting rods 7, Fig. 14.

The bottom member shown in detail in Fig. 9 is made up of a large part 8 with edges turned over and downward 9 and the large hole in center 10 and a smaller or lower part 11 Fig. 11 with hole 12 in center for electric cord connection and turned up lips 13 to hold the lamp socket 23; turned up supports 14 with fastening lips 15 to clench over and fasten in holes cut in upper part 16; and a socket 17 soldered in place and designed to hold supporting bracket 25 for the rotating member 45; when assembled the bottom member 42 is secured in place by the downward turned edges 9 fitting over the upward turned edges 4 of the side frames.

The top member 46, of the box (shown in detail in Fig. 8) is made up of large part 18 with edges turned over and downward 19 and with ventilator opening 20 formed by cutting in such a way that lips are formed which are bent downward as at 21, Fig. 2. An extra ventilator member 22 Fig. 10 with lips cut and bent to fit between the lips of 119

the main member is soldered or welded to the underside of the main top member 46 as shown in Fig. 2, thus forming overlapping ventilator opening; when assembled the top is held in place by the overturned edges 19 fitting over the tops of the side frames.

The lamp socket 23, Fig. 2, holding the lamp 24 is permanently attached to the cord and attachment plug and when the apparatus is assembled the attachment plug is dropped through the hole 12 and the socket is placed in position and held by the fastening lips 13.

The collapsible revolving member 45 is made up of the top or turbine member 27 shown in Fig. 17, the side rods 32 of Fig. 16, the bottom ring 36 of Fig. 19, and the colored mantle 38 of Fig. 18.

The top member 27 is made up of a disk-like piece of metal with turned over periphery 28 and incisions made radially and around the periphery so that blades 29 may be bent inward thus forming a turbine element. Holes 30 are cut to receive the upper turned over ends 31 of the side rods 32 and a hole is cut in the center with lips 33 and 34 to hold the hardened inverted cup shaped bearing member 35. This member receives the point 26 of the supporting rod 25.

The bottom member is a ring 36 which is held in place by the upturned lower ends 37 of the supporting rods 32. The vari-colored mantle 38 is made up of colored pieces of cloth, paper, gelatin, celluloid or other colored translucent material in the form of a collapsible cylindrical covering, and is slipped over the revolving member framework when assembled.

In the preferred form the entire device, including framework and rotating member is of the knockdown or collapsible construction, making transportation possible in a simple package. The device comes to the consumer in a flat package. The three frames 39, 40 and 41 are fastened together at the three corners by the supporting rods 7. The bottom member is then slipped into place as heretofore described. The attachment plug is dropped through the hole 12 and the lamp socket 23 slipped into place and the lamp 24 screwed in. The revolving member supporting bracket 25 is then slipped in the socket of the bottom member 17; upper ends 31 of the side rods 32 of the collapsible turbine 28 are slipped into the holes 30 in the top head of the turbine ring and the bottom ring is slipped over the bottom of rods 32. The colored mantle is slipped over the revolving member as a whole.

The revolving member is slipped over the lamp and hung on the supporting pivot 26 of rod 25, suspended by depression 35. The display fields 44 are then slipped into place from the top and the top cover 46 is put on.

The lamp 24 will be illuminated when the current is turned on and will generate heat. The air current created by the heat emanating from the lamp will cause the turbine 27 to rotate, carrying the mantle around at full speed in about 2 or 3 minutes. Rays of light from the light source passing through the revolving vari-colored mantle cause changing vari-colored lights to be thrown on the display fields.

The above construction has many advantages over the cumbersome devices now in use. It provides a minimum amount of space for working parts in relation to the surface available for display fields. These fields can be quickly and easily interchanged, and if it is desired the entire apparatus can be made without glass parts as the display fields can be of other substances and thus absolutely eliminate any possibility of breakage. Where it is desired to utilize the rear display field or fields a mirror can be used in connection with the device, the material shown on the display field being reversed in the reflected image. A triangular box has been shown employing 3 sides, but any number of sides can be used, and the device can take any form as long as the underlying features of the device are employed.

It will be observed that the air passage openings in the top and bottom of the device shown are designed to permit no egress of unnecessary light and the interior of the apparatus is screened from normal vision at all times. It is necessary, of course, to secure a current of air through the apparatus, but the openings to provide passage of air are especially designed to permit no escape of light rays nor can the interior of the device be seen through such openings.

I claim:

1. A display device, comprising, a casing, a light source and a rotating element located in the casing when erected and revolved by hot air currents heated by the source, for producing changing waves of light on the display fields, the top of the casing consisting of a removable cover provided with overlapping ventilator blind openings and an overlapping false bottom below the main bottom, the overlapping members of the top and bottom being adapted to permit sufficient passage of air between them to give the rotating element the proper speed, without egress of light rays from the source to normal vision.

2. A knockdown display device, comprising a knockdown casing, a light source, and a collapsible rotating element located in the casing when erected and revolved by hot air currents heated by the source, for producing changing waves of light on the display fields, the top of the casing consisting of a removable cover provided with overlapping

ventilator blind openings and an overlapping false bottom below the main bottom, the overlapping members of the top and bottom being adapted to permit sufficient passage of air between them to give the rotating element the proper speed, without egress of light rays from the source to normal vision.

5 3. A knockdown display device, comprising a knockdown casing, a source of light, detachable display fields for one or more
10 sides, and a collapsible colored rotating element located in the casing when erected and revolved by air currents created by the source, for producing changing colored
15 waves of light on the display fields, this rotating element being hung over the source

of light on a pivot bearing carried in a detachable bracket held in a socket in the casing, the top of the casing consisting of a removable cover provided with overlapping ventilator blind openings and an overlapping false bottom below the main bottom, the overlapping members of the top and bottom being adapted to permit sufficient passage of air between them to give the rotating element the proper speed, without egress of light rays from the source to normal vision.

Signed at New York city in the county of New York and State of New York this 27th day of May, A. D. 1920.

GORHAM M. LYNES.