Nov. 20, 1956 R. N. MORTON 2,770,901

ANIMATED ADVERTISING SIGNS

Filed Oct. 9, 1953

Fig 1

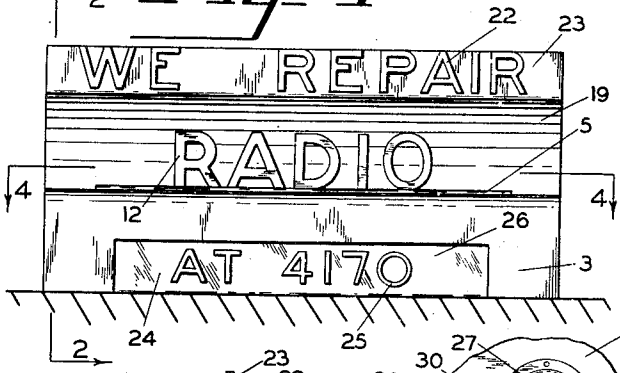


Fig 3

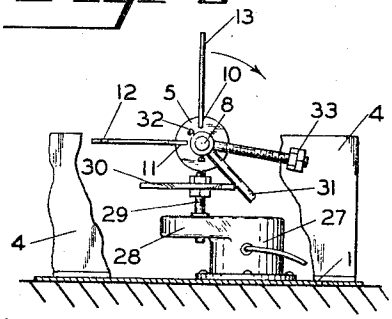


Fig 5

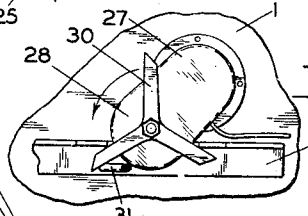


Fig 2

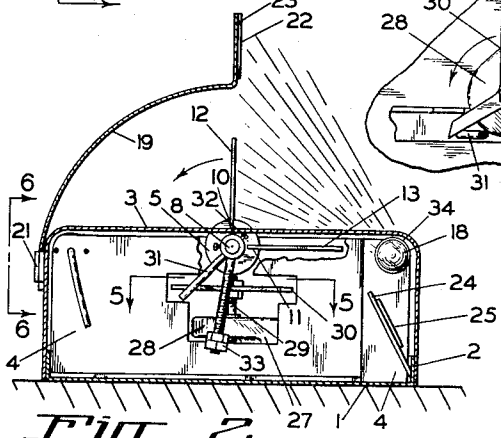


Fig 8

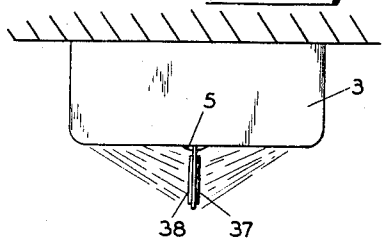


Fig 7

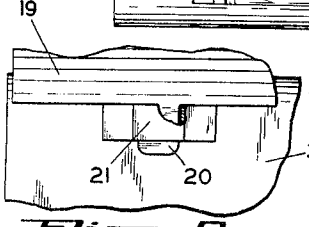


Fig 6

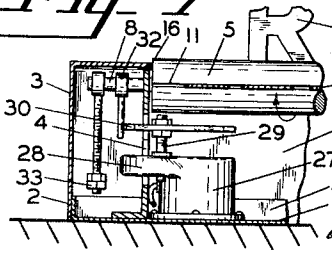
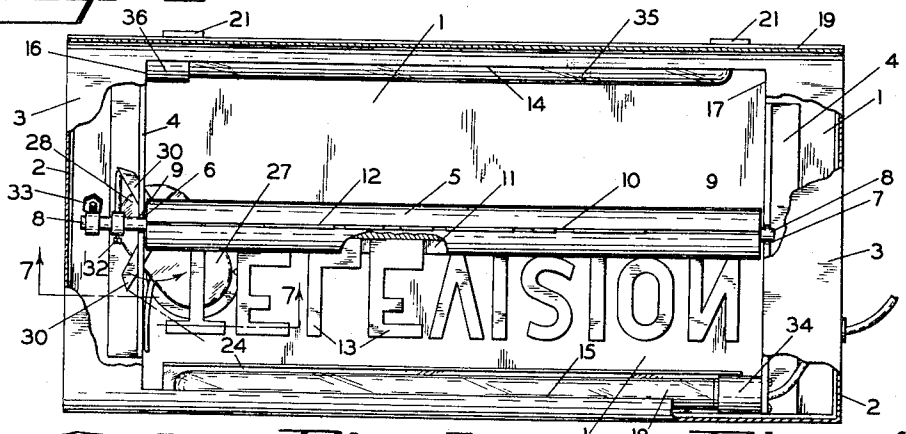


Fig 4



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ANIMATED ADVERTISING SIGNS

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4 Claims. (Cl. 40—77)

This invention relates to advertising signs and is particularly related to animated signs.

The primary object of this invention is to provide an animated sign wherein a rotor supports two rows of lettering at 90 degrees apart. The position of these rows of lettering alternate from a horizontal to a vertical position and back again so that first one row of letters in the form of a word or more, is brought to a vertical position for reading. This row then drops down to a horizontal position out of the line of vision, while the second row is brought to a vertical or reading position, each row of lettering alternating from a vertical to a horizontal position.

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

Referring to the drawings:

Figure 1 is a front view of the sign being readable from one side thereof.

Figure 2 is an end sectional view, taken on line 2—2 of Figure 1, showing the mechanism for oscillating the rotor.

Figure 3 illustrates the driving mechanism having rotated the rotor 90 degrees.

Figure 4 is a plan sectional view, taken on line 4—4 of Figure 1, parts broken away for convenience of illustration.

Figure 5 is a fragmentary detail plan view, taken on line 5—5 of Figure 2 illustrating the motive power.

Figure 6 is a fragmentary detail, illustrating how the reflected word is removably mounted thereto.

Figure 7 is a fragmentary sectional view, taken on line 7—7 of Figure 4, illustrating the driving mechanism for oscillating the rotor.

Figure 8 is an end view of the sign, having the reflector removed and the sign hung in an inverted position under a support, the said sign being readable from both sides.

Referring more specifically to the drawings:

My new and improved sign consists of a base **1**, having upturned edges **2** adapted to receive the hood or cover **3**. Extending upwardly from the base and forming part thereof are supporting legs **4**. These legs are adapted to have the rotor **5** journalled therein at **6** and **7**. The rotor **5** has a shaft **8** running therethrough. This shaft is dropped down into the U-shaped bearings **9** formed on the upper edge of the said legs so that the rotor can be removed easily.

The rotor **5** has longitudinal slots **10** and **11** adapted to receive the rows of letters **12** and **13**. The top of the hood or cover **3** is cut away to the edges **14** and **15** on the sides of the hood, and to the edges **16** and **17** on the ends. This permits light rays from a light tube **18** to strike the rows of lettering which are in a vertical position, illuminating the same.

A removable back board **19** provides a non-reflectable background and is mounted to the hood **3** by way of the downwardly extending tongues **20** forming part thereof, the said tongues entering the sockets or loops **21** forming part of the hood **3**, best illustrated in Figure 6.

Lettering **22** may be fixedly secured to the vertical face

23 of the removable back board **19**, as best illustrated in Figures 1 and 2. These letters are also illuminated from the light tube **18** through the opening on the top of the hood **3**. The light striking the back board **19** is absorbed so that a desirable effect in regards to the vertical lettering mounted on the rotor **4** is obtained from the viewpoint of the observer. The light **18** also directs light on to the panel **24**, supporting the lettering **25**, the lettering showing through the opening **26** of the hood **3**.

The rotor **5** is revolved 90 degrees in the following manner: An electric motor **27** is mounted to the base **1**, as best illustrated in Figures 5 and 7. A reduction gear **28** is associated with this motor and drives the vertical shaft **29**. Keyed to the upper end of the vertical shaft is a star wheel **30**. This star wheel is adapted to engage the crank arm **31**. The crank arm **31** is keyed to the shaft **8** by any suitable means, as the set screw **32**.

Also keyed to the shaft **8** is an adjustable counterweight **33**. The object of the counterweight is to return the rotor to a starting position after the star wheel **30** engages the lever or crank arm **31**, as indicated in Figures 2 and 5 and moves the same to the position shown in Figure 3 where the end of the star wheel arm slips off the crank arm **31**.

The light tube **18** is mounted within a socket **34**, which in turn is secured to one of the legs **4**. An additional light tube **35** is provided and mounted within the socket **36** for use when the sign is used in the position shown in Figure 8. When the sign is used as shown in Figure 8, both the light tubes **18** and **35** are in operation, illuminating the letters **37** and **38**, which are mounted to a sheet like supporting element which is inserted within the slots **10** of the rotor **5**.

I will now describe the operation of my new and improved animated sign. When the sign is used as shown in Figures 1 and 2, the reflector **19** is used and only the light tube **18** is in operation. The motor **27** is started rotating the star wheel **30**. The arms of the star wheel engage the crank arm **31** which is affixed to the rotor shaft **8**, and as the star wheel travels around it will move this arm to the position shown in Figure 3, bringing the line of letters **13** to the position shown, causing the letters **12** to assume a horizontal position or out of the line of vision of the observer.

At the point shown in Figure 3, the arm of the star wheel will slip beyond or away from the crank arm **31**, allowing the counterweight **33** to lower the line of letters **13** to the horizontal position shown in Figure 2 and bringing the line of letters **12** back to the vertical position, as shown in this view. This goes on continuously causing the animated action. The counterweight **33** is adjustable so as to adjust its weight, depending upon the various arrangements of rows of letters **12** and **13**. This counterweight can be adjusted to its weight, as well as to its position in relation to the rotor shaft **6**.

What is claimed is:

1. An animated sign comprising a flat base having upturned edges, a hood embracing said upturned edges, legs extending upwardly from said base, a shaft journalled on said legs substantially in line with the free edge of said hand, means for supporting two series of letters on said shaft at right angles to each other to be respectively exposed beyond said hood, a light source behind said hood for illuminating the series of letters which are exposed above the hood, means including a crank arm and a star wheel mounted on the base for oscillating said shaft to successively expose said two series of letters above the hood, and a counterweight on the shaft to maintain said crank arm against the star wheel.

2. A sign as defined in claim 1 comprising a background member and means for removably supporting said

member on the hood behind the shaft and extending upwardly beyond the hood.

3. A sign as set forth in claim 2, said background member having a series of letters on the free edge portion of said member to be illuminated by the light source.

4. A sign as defined in claim 3, said hood having an opening therein beyond the light source, and an inclined sign element mounted on said hood behind said opening to be illuminated by said light source.

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