

J. K. HACKETT.
 DISPLAY DEVICE.
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Patented June 22, 1920.

1,344,084.

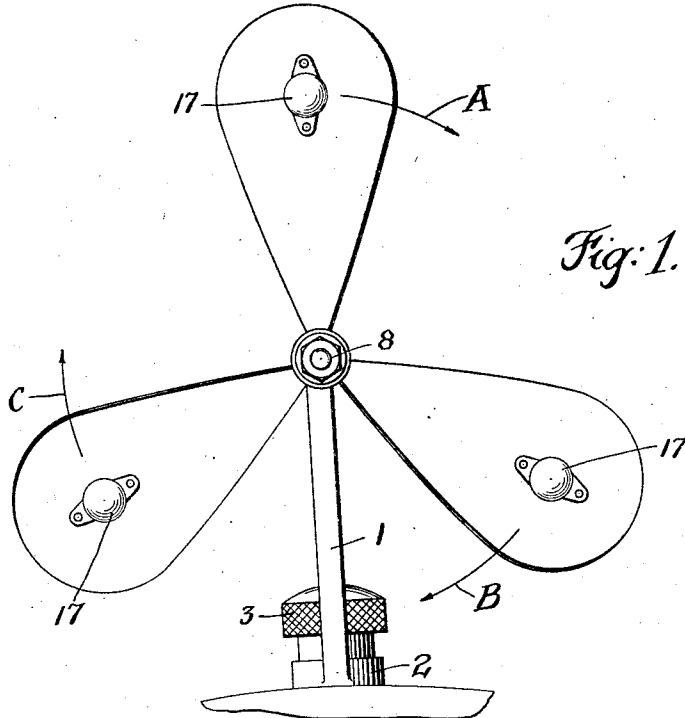


Fig. 1.

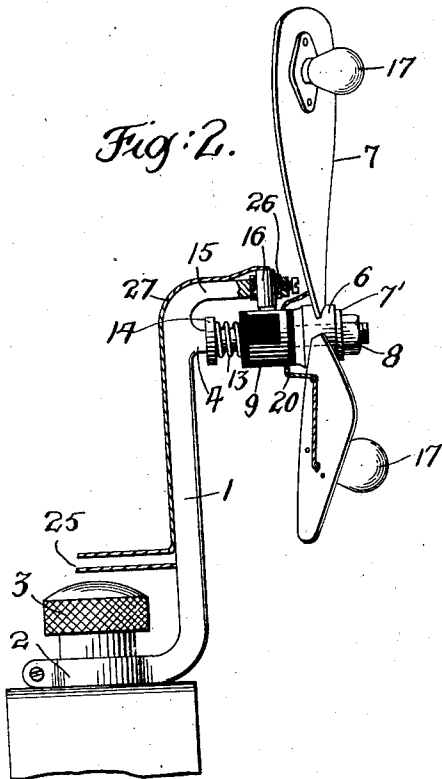


Fig. 2.

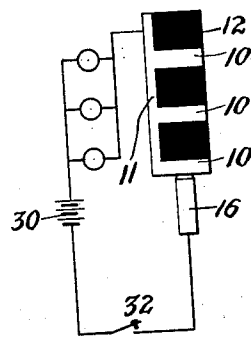


Fig. 3.

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DISPLAY DEVICE.

1,344,084.

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To all whom it may concern:

Be it known that I, JAMES K. HACKETT, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Display Devices, of which the following is a specification.

My invention relates to display devices, and particularly to illuminating devices adapted to be mounted upon moving vehicles and operated by the rush of air due to their movement.

It is an object of my invention to provide a display device which will be attractive in day-light, and which may be illuminated at night.

It is a further object of my device to provide means for illuminating my display device in such a way that it will be attractive either as an ornament or for the purpose of giving a signal or warning.

My device includes a moving member and I propose to mount lights thereon. If a light is lighted during a certain portion of its movement and another lighted light, preferably of a different color, is carried over the same path immediately after the first light moves over that path, it will appear that there is a progression of lights. It is an object of my invention to arrange the lights so that this appearance will be secured.

Other and further objects and advantages will appear from the following description, taken in connection with the drawings forming a part of this specification, and they will be pointed out in the hereunto appended claims.

In Figure 1, there is shown a front view of a display device embodying features of my invention;

Fig. 2 shows a side view, partly in section, of the device shown in Fig. 1; and Fig. 3 is a wiring diagram.

In the construction disclosed by this specification for the purpose of making my invention understandable, a bracket 1 is provided which, for convenience, may be provided with a clamp 2 for attachment to the radiator filler of an automobile. Of course, other attaching means may be provided; according to the place at which it is desired to position the bracket. This bracket includes an arm 4 upon which is mounted the hub 6, of a multibladed fan, having blades 7, which

contacts with the washer 7' which is held upon the arm 4 by the nut 8. To the hub 6 is secured a commutator 9, the development of which is shown in Fig. 3. This commutator includes contacting bars 10 which are electrically connected by circumferentially extending parts 11 and which are spaced by insulation members 12. A spring 13, abutting against the collar 14, presses on the commutator and holds the hub 6 against the washer 7'. A second arm 15, formed on the bracket 1, has a brush 16 adjustably secured in it which engages the commutator 9.

Bulbs 17 are mounted upon the blades of the fan so that they are all equally spaced and so that they are equidistant from the axis of rotation of the fan. A wire 20 leads from the commutator to one contact of each bulb and current is led to the other contact of the bulb through the fan by means of the conductor 25 leading from the battery and attached to the bracket 1. The collar 26 insulates the brush 16 from the bracket and the conductor 27 leads from the brush to the battery 30.

In the construction described the commutator contact sections 10 are of equal width and they are equidistantly spaced. Each of the bulbs 17 will be illuminated as it passes through an arc having the same length, for example, as the arc A shown in Fig. 1. If the bulbs are of different colors, for instance, red, white and blue, there will be first a red streak, for example, of the length of the arc A, then a white streak and then a blue streak, and the same will be true at the arcs B and C. The intermittent lighting of the bulbs will make it appear that there are three elongated lights jumping from one position to another, and this will be very conspicuous as a display device. There is a switch 32 in the circuit, which is under the control of the driver, whereby the lights may be turned on only when it is desired to give out a signal. Since the fan is rotated by the rush of air against the oblique blades, its speed will be proportional to the speed of the vehicle. This will also add to the display produced.

While I have shown and described, in great detail, my invention, I do not intend to be limited to the specific features herein set forth for the purpose of interpreting my invention, but intend that my invention shall include such variations, adaptations or

modifications as appear to those skilled in the art and such as fall within the hereunto appended claims.

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

1. In a lighting device, a blade mounted for rotation about an axis and having a portion thereof oblique to said axis, a light on said blade, a circuit for said light and means for closing said circuit at intervals during the rotation of said blade, and comprising a commutator and a brush member, one of said members being carried by said blade and the other being stationary, said commutator member comprising a plurality of electrically connected parts of equal width spaced by insulating members.
2. In a lighting device, a multibladed fan mounted for rotation, a light on each blade, a circuit for said lights, means for closing said circuit at intervals during the rotation of said fan and comprising a brush member and a commutator member, one of said members being carried by said fan and the other being held stationary, said commutator member comprising electrically connected parts of equal width and corresponding in number with said lights and separated by insulating members of equal width, said lights being uniformly spaced circumferentially of said fan.
3. In a lighting device, a multibladed fan mounted for rotation, a light on each blade, a circuit for said lights, means for closing said circuit at intervals during the rotation of said fan and comprising a brush member and a commutator member, one of said members being carried by said fan and the other being held stationary, said commutator member comprising electrically connected parts of equal width and corresponding in

number with said lights and separated by insulating members of equal width, said lights being uniformly spaced circumferentially of said fan, said lights being of different colors.

4. In an illuminated display device adapted to be attached to a vehicle, a multibladed fan mounted for rotation about an axis, a portion of the blades being oblique to the axis, a light on each blade, a circuit for the lights, means, operated by the rotation of the fan, for closing said circuit at intervals during the rotation of the fan, and comprising a brush member and a commutator member, one of said members being carried by the fan and the other being held stationary, said commutator comprising electrically connected parts corresponding in number with said lights and separated by insulating members, the lights being spaced circumferentially of said fan.

5. In an illuminated display device adapted to be attached to a vehicle, a multibladed fan mounted for rotation about an axis, a portion of the blades being oblique to the axis, a light on each blade, a circuit for the lights, means, operated by the rotation of the fan, for closing said circuit at intervals during the rotation of the fan, and comprising a brush member and a commutator member, one of said members being carried by the fan and the other being held stationary, said commutator comprising electrically connected parts corresponding in number with said lights and separated by insulating members, the lights being spaced circumferentially of said fan, the latter being operated by the impact of the air against it.

In testimony whereof I have signed my name to this specification.

JAMES K. HACKETT.