G. R. PYPER.

ANIMATED SIGN.

APPLICATION FILED SEPT. 10, 1920.

1,403,630.

Patented Jan. 17, 1922.

2 SHEETS—SHEET 1.

Fig. 1.

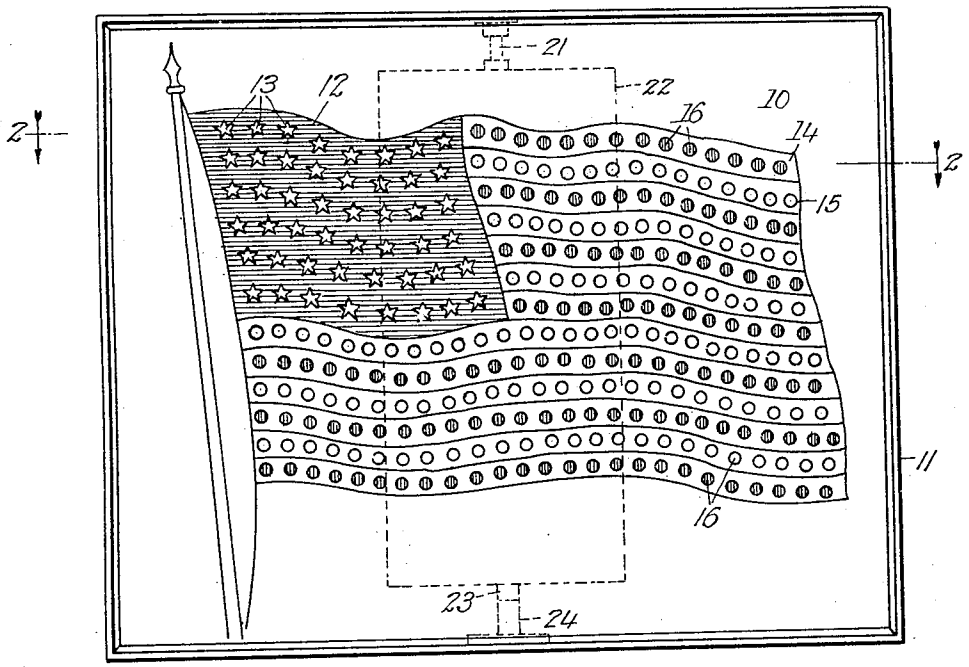
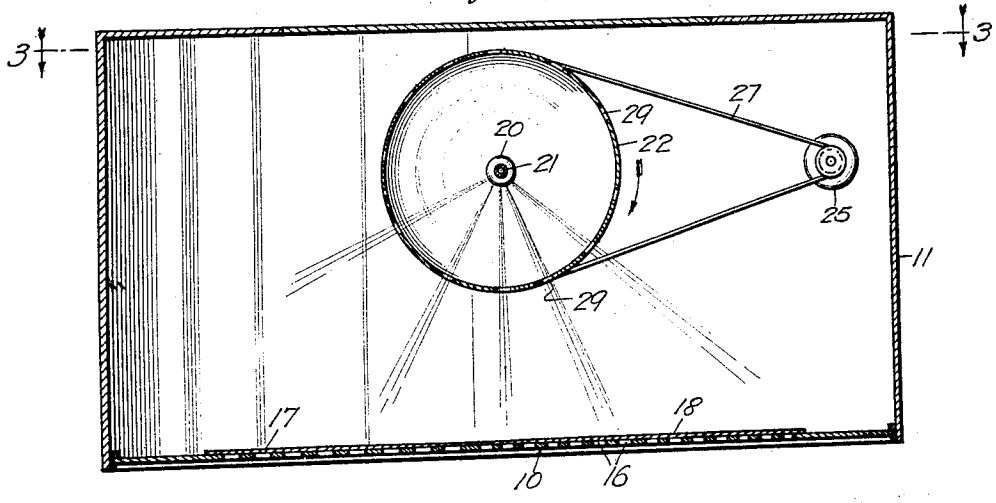


Fig. 2.



Inventor:
George R. Pyper,
by John Howard McElroy
his Atty.

G. R. PYPER.

ANIMATED SIGN.

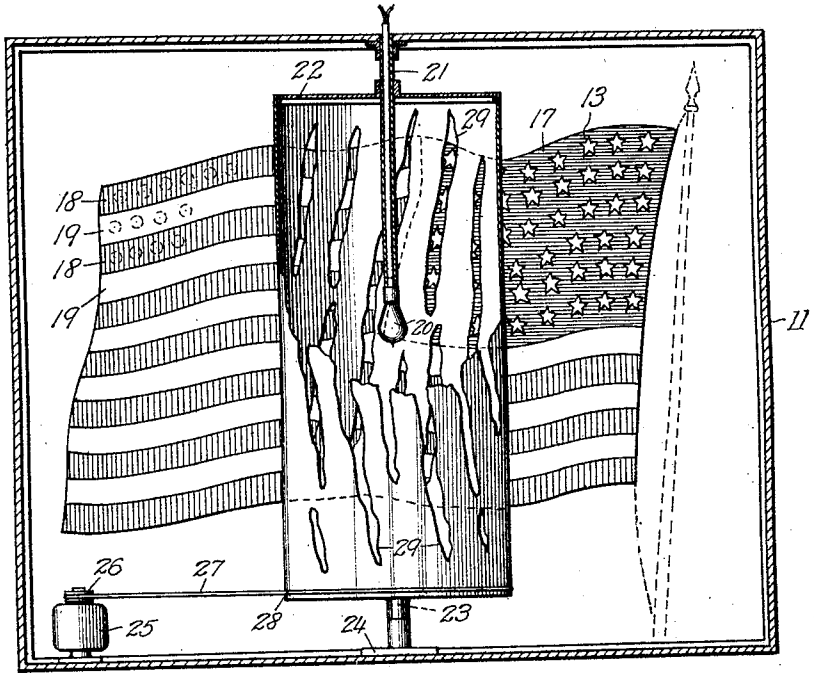
APPLICATION FILED SEPT. 10, 1920.

1,403,630.

Patented Jan. 17, 1922.

2 SHEETS—SHEET 2.

Fig. 3.



Inventor:
George R. Pyper,
by John Howard McElroy
his Atty.

UNITED STATES PATENT OFFICE.

GEORGE R. PYPER, OF SALT LAKE CITY, UTAH, ASSIGNOR TO PYPER ANIMATED SIGN COMPANY, OF SALT LAKE CITY, UTAH, A CORPORATION OF UTAH.

ANIMATED SIGN.

1,403,630. Specification of Letters Patent. Patented Jan. 17, 1922.

Application filed September 10, 1920. Serial No. 409,393.

To all whom it may concern:

Be it known that I, GEORGE R. PYPER, a citizen of the United States, and a resident of Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Animated Signs, of which the following is a full, clear, and exact specification.

My invention is concerned with the art of animating signs, and is designed to produce a sign that shall simulate the waving of a flag, or any other similar effect. To this end it consists of a certain novel combination of elements, all as will be fully described in the specification and particularly pointed out in the claims.

To illustrate my invention, I annex hereto two sheets of drawings in which the same reference characters are used to designate identical parts in all the figures, of which—

Fig. 1 is a front elevation of the sign;

Fig. 2 is a horizontal section on the line 2—2 of Fig. 1; and

Fig. 3 is a rear elevation as seen on the line 3—3 of Fig. 2 with a portion of the animating cylinder broken away to show the internal construction.

I have shown my invention as applied to a flag design, and more specifically that of the United States, and the flag is painted or otherwise depicted in any desired manner upon the front surface of the screen plate 10, which forms the front of the generally rectangular casing 11, which may be constructed of any desired materials and design. The screen plate 10 is preferably constructed of sheet metal, although it will be understood that any other naturally opaque material may ordinarily be employed. Of course the screen plate might be of glass, and the general opaqueness thereof secured by painting over the entire surface except as hereinafter specified with a heavy opaque paint. The flag of course is represented as waving, and its design will accordingly be wrinkled as shown to give the appearance of motion, and in the blue background 12, I leave the necessary star-shaped apertures 13, where the material of the screen plate is opaque, or simply the unpainted portions where it is naturally transparent. The alternate stripes 14 and 15 will be painted red and white, and each strips has formed in the body thereof the series of preferably circular apertures 16, if the substance of the screen plate is opaque, or the uncovered portions if it is naturally transparent or translucent. Where the natural substance of the screen plate 10 is opaque and the light transmitting portions 13 and 16 are formed by apertures, I preferably cover the back of the screen plate over these portions with a sheet, or strips, of translucent material, such as the sheet 17, which covers the blue background and which will preferably be blue, and the strips 18 and 19 which cover the outline of the red and white stripes and which will be red and white respectively.

To furnish the interior illumination, I preferably employ the single high powered incandescent light 20, which is suspended in the casing well back of the center of the flag, and which is preferably supported from the top of the casing by the tube 21, which serves as a bearing for the upper end of the animating drum 22, which preferably takes the form of a hollow cylinder journaled as above noted on the tube 22 at its upper end and on its lower end on a vertical stub bearing 23 carried by the standard 24. The cylinder may be rotated by any desired means, but I preferably employ the small electric motor 25 shown, which may be conveniently set with its armature shaft extending vertically, and with the small belt pulley 26 thereon which is connected by the belt 27 with a belt groove 28 formed on the periphery of the cylinder at its bottom. The cylinder 22 is formed of an desired naturally opaque material, such as sheet metal or cardboard, and has extending longitudinally thereof the series of elongated apertures 29, which are irregular in their design so as to produce the effect of an irregular waving of the flag.

The operation of the device will be readily understood, as the cylinder is rotated continuously by the motor, and the waves of light pass from the flag pole outward toward the end, appearing through the apertures 13 and 16, and giving the appearance of motion to the flag.

While I have shown and described my invention as embodied in the form which I at present consider best adapted to carry out its purposes, it will be understood that it is capable of modification, and that I do not desire to be limited in the interpretation of the following claims except as may be necessitated by the state of the prior art.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. In an animated picture, the combination with a screen plate having on the front thereof a representation of a naturally flat surface distorted by waves in the substance thereof, said screen plate having regular portions thereof permitting the passage of light arranged so as to outline the design on the surface and also the distortions, of a source of illumination back of the screen plate, a generally opaque animating member between the screen plate and the source of illumination having elongated irregular portions permitting the passage of light therethrough therein arranged transversely of the line of movement of the member, and means for moving the animating member.

2. In an animated picture, the combination with a screen plate having on the front thereof a colored representation of a naturally flat surface distorted by waves in the substance thereof, said screen plate having regular portions thereof permitting the passage of light arranged so as to outline the design on the surface and the distortions, said portions being colored to correspond with the coloring of the front of the screen plate in which they are located, of a source of illumination back of the screen plate, a generally opaque animating member between the screen plate and the source of illumination having elongated irregular portions permitting the passage of light therethrough therein arranged transversely of the line of movement of the member, and means for moving the animating member.

3. In an animated picture, the combination with a screen plate having on the front thereof a representation of a naturally flat surface distorted by waves in the substance thereof, said screen plate having regular portions thereof permitting the passage of light arranged so as to outline the design on the surface and the distortions, of a source of illumination back of the screen plate, a generally opaque cylinder constituting an animating member surrounding the source of illumination and having elongated irregular portions permitting the passage of light therethrough therein arranged generally parallel to the axis of the cylinder, and means for rotating the cylinder.

4. In an animated picture, the combination with a screen plate having on the front thereof a representation of a naturally flat surface distorted by waves in the substance thereof, said screen plate having regular portions thereof permitting the passage of light arranged so as to outline the design on the surface and the distortions, of a source of illumination back of the screen plate, a generally opaque cylinder constituting an animating member surrounding the source of illumination and having elongated irregular portions permitting the passage of light therethrough therein arranged generally parallel to the axis of the cylinder, and means for rotating the cylinder, said means consisting of an electric motor with its armature shaft parallel to the axis of the cylinder and having a belt wheel on its shaft connected by a belt with a groove in the surface of the cylinder.

In witness whereof, I have hereunto set my hand and affixed my seal this 24th day of August, A. D. 1920.

GEORGE R. PYPER. [L. S.]

Witnesses:
K. W. YEATES,
H. E. WALLACE.