

No. 829,902.

PATENTED AUG. 28, 1906.

F. H. URRY.
ILLUMINATED ADVERTISING SIGN.
APPLICATION FILED MAY 31, 1906.

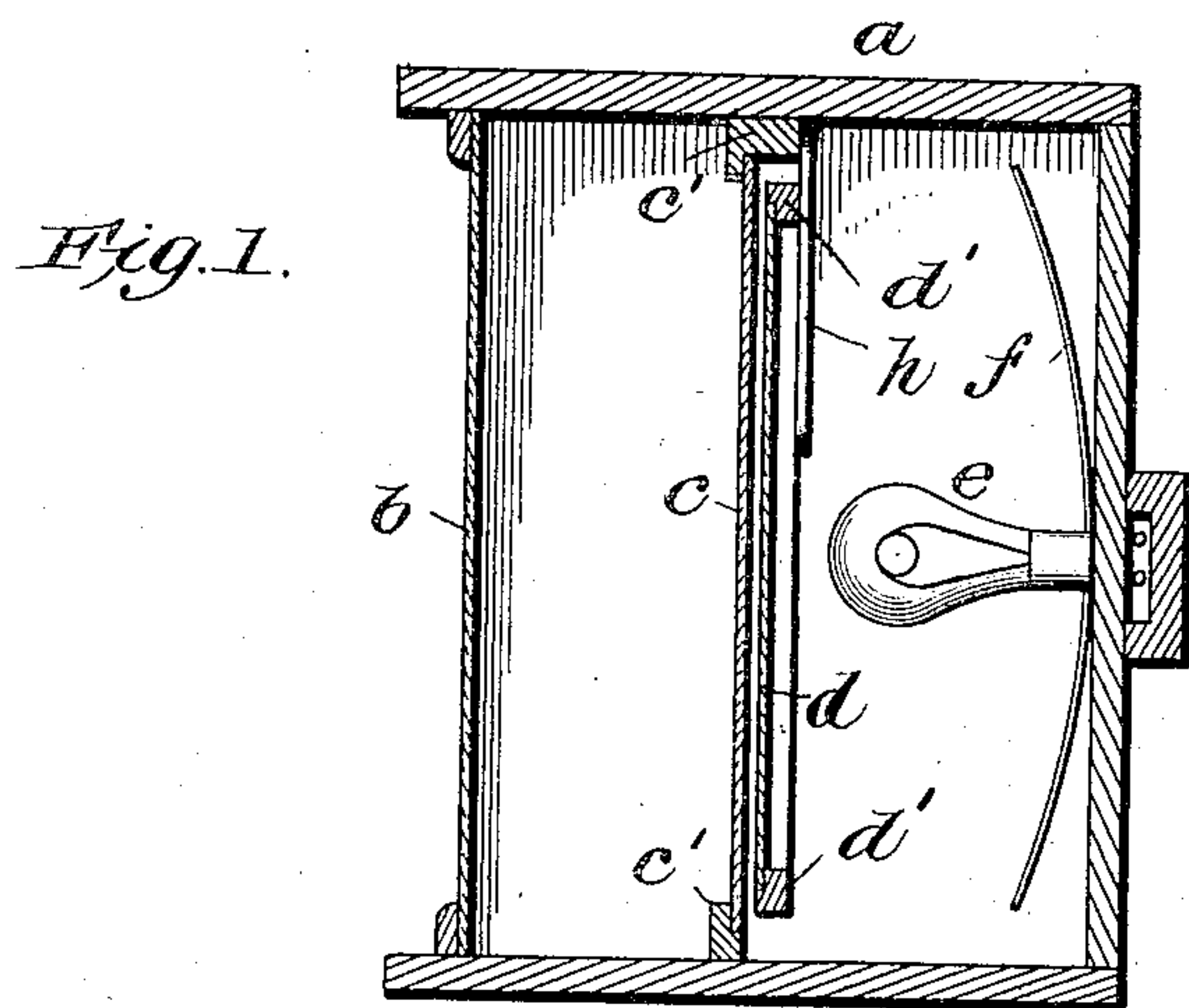
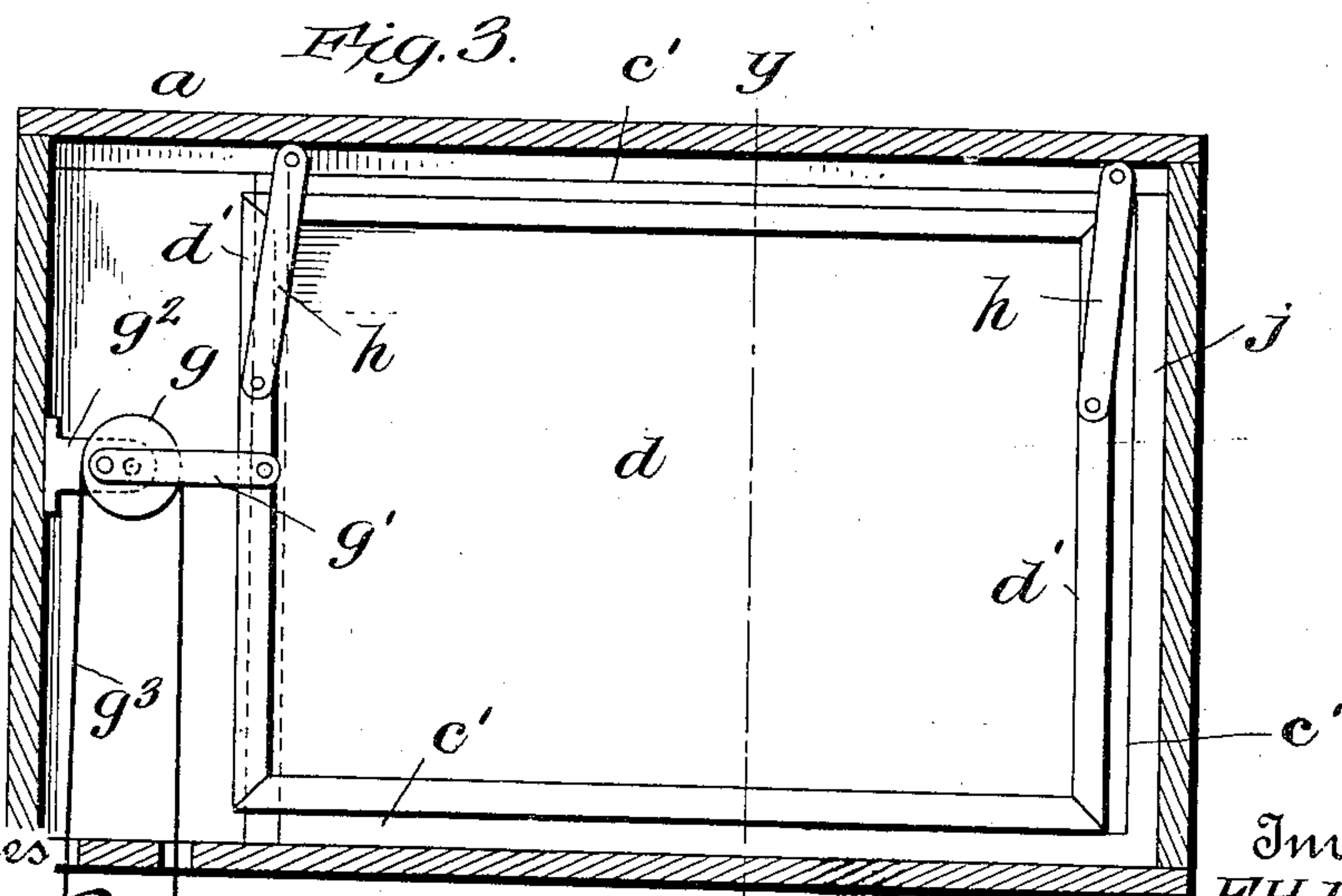
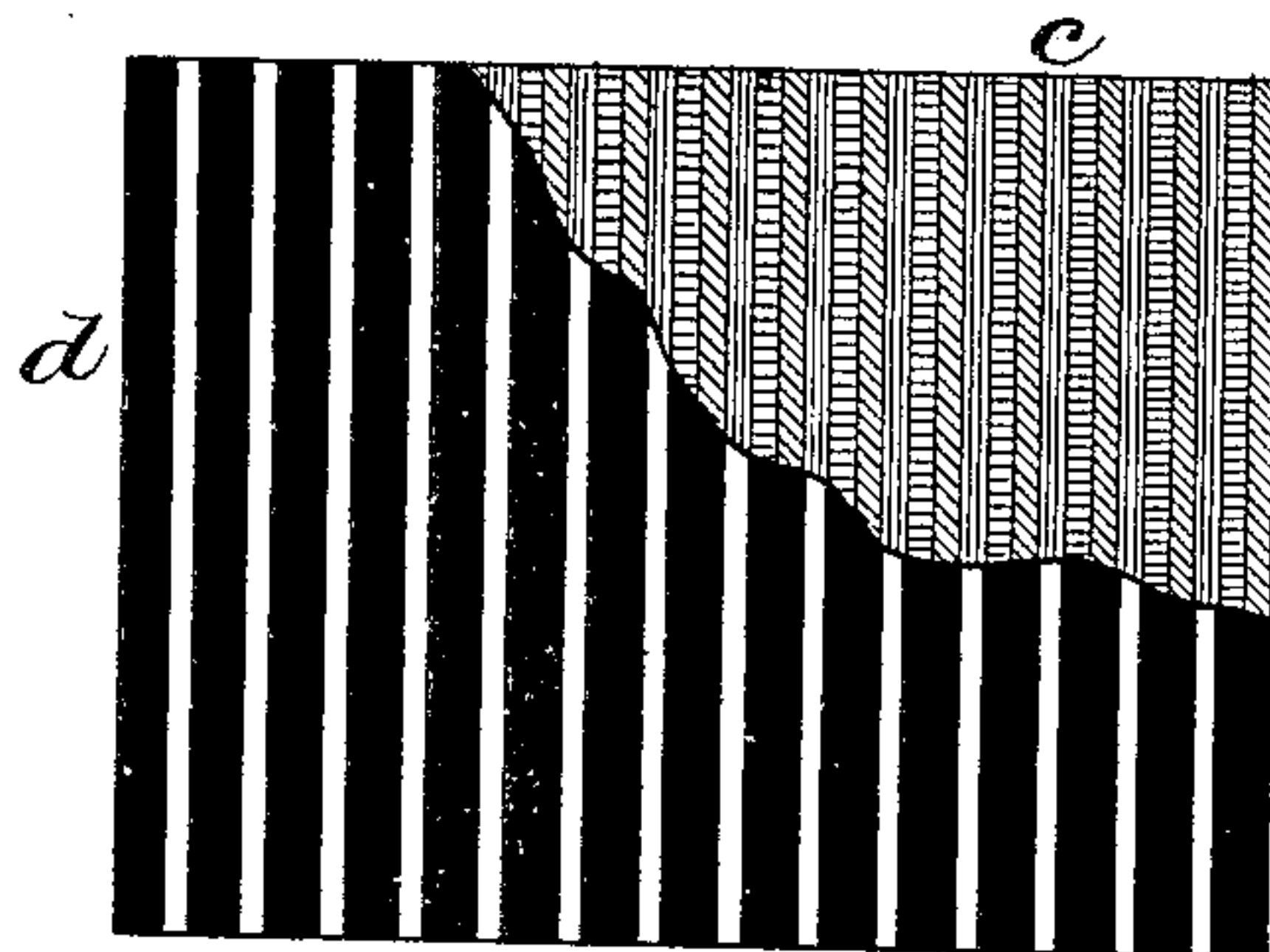


Fig. 2.



Witnesses

Geo. T. Byrne
Myron Clear

Inventor
F. H. URRY,

By *Wilkens & Fisher*
Attorneys

UNITED STATES PATENT OFFICE.

FRANK HARVEY URRY, OF LONDON, ENGLAND.

ILLUMINATED ADVERTISING-SIGN.

No. 829,902.

Specification of Letters Patent.

Patented Aug. 28, 1906.

Application filed May 31, 1906. Serial No. 319,583.

To all whom it may concern:

Be it known that I, FRANK HARVEY URRY, a subject of the King of Great Britain, and a resident of 61 Frobisher road, Hornsey, London, in the county of Middlesex, England, have invented new and useful Improvements in Illuminated Advertising-Signs, of which the following is a specification.

My invention relates to illuminated signs or advertisements in which illuminated words or designs are made to change color continuously; and the objects of my invention are, first, to make the colors fade or dissolve into each other without break or apparent movement, and, second, to effect the fading or dissolving of the colors by means of automatically-moved mechanism.

I attain these objects by the means illustrated in the accompanying drawings, in which—

Figure 1 is a section of the entire apparatus through the vertical line yz in Fig. 3. Fig. 2 is an enlarged view of part of the dissolving device which is shown partially cut away to show the color-screen, the colored bands upon which are indicated red, blue, and green. Fig. 3 is an elevation of the illuminated sign, the back carrying the electric lamps and reflector being removed showing the dissolver (from which the vertical opaque bands are omitted for clearness) suspended upon swinging pivoted links, so that it can swing for a short distance backward and forward in its own plane.

Similar letters refer to similar parts throughout the several figures.

a is an external case containing the entire apparatus and light-tight, except for the part to be illuminated. In the front of the case is a screen b , on which the words or designs to be illuminated are formed in ground glass, or the front b may be formed of a sheet of ground glass, the portion surrounding the letters or designs being blocked out with opaque paint or in other convenient manner. At a short distance behind the sign-screen b is fixed another transparent color-screen c , fixed in the frame c' and ruled in narrow parallel bands of equal width of transparent color, as red, blue, and green, alternately. The front screen b and the color-screen c are fixed.

d is the dissolver, consisting of a third sheet of glass or the like arranged close behind the screen c , but without touching it, which is

also ruled in parallel opaque bands each of which is the width of two of the bands on the color-screen c and being a space apart equal to one of the bands on the color-screen c .

The dissolver d is carried in the frame d' , which is suspended by pivoted oscillating links h , so that it is capable of being moved to and fro behind the color-screen c for a distance equal to the width of four of the bands on the color-screen. This movement of the dissolver is effected by any suitable means, such as clockwork, and as the necessary movement is so small and is also slow very small power is required to actuate the dissolver d . Behind the dissolver is placed a row of incandescent electric lamps e , and f is a reflector placed at the back of the lamps e to distribute and diffuse the light falling through the dissolver d and the color-screen c upon the front screen b . The dissolver d is made to move slowly to and fro by means of the rotating wheel or pulley g , which is carried by a bracket g^2 , attached to the case a , and is made to revolve slowly by means of a belt or cord g^3 , driven by clockwork or other convenient means, (which is not shown in the drawings, as it forms in itself no part of my present invention.) A crank-pin upon the spindle of the pulley g is connected with the dissolver-frame d' by the connecting-rod g' .

The action of the apparatus is as follows: In its normal position the dissolver d only allows the light through the red bands of the color-screen c to pass to the front screen b , the words or design upon which will be illuminated with red light. If the dissolver d be set in motion gradually, equal portions of the next or blue bands of color on the color-screen c will be uncovered and the mixed light of these and of the portions of the red bands remaining uncovered will be thrown on the front screen b and the letters or design thereon will, as the dissolver d moves, gradually dissolve through all the tints resulting from the admixture in varying proportions of red and blue light to pure blue and as the dissolver d completes its motion from color to color.

The dissolver d may consist of a sheet of metal or other opaque material pierced with parallel slits to allow light to pass through each of the colored bands or lines of the color-screen c . Instead of employing the three colors, red, blue, and green, the color-screen c may of course be ruled with other colors or

tints. The spaces *j j* between the frames *c'* and the sides of the case *a* are of course fitted with opaque material to prevent any light from passing to the front screen *b* except
5 through the color-screen and the dissolver.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a sign, the combination of a sign-screen, a color-screen behind said sign-screen
10 and having parallel bands thereon of different colors, a dissolver behind said color-screen having opaque portions and translucent portions, means for moving said dis-
solver, and means for throwing light thereon,
15 substantially as described.

2. In a sign, the combination of a light-tight casing, a sign-screen therein, a transparent color-screen behind said sign-screen
20 divided into bands of equal widths, but of different colors, a dissolver behind said color-screen having opaque portions and translucent portions, means for moving said dis-

solver, and illuminating means behind said dissolver, substantially as described.

3. In a sign, the combination of a light- 25 tight casing, a sign-screen in front of said casing, a transparent color-screen behind said sign-screen, said color-screen being divided into bands of equal widths, but different colors, a dissolver behind said color- 30 screen, provided with opaque portions equal in width to two of the bands on the color-screen, and with light-transmitting portions of the same width as the bands on the color-
screen, means for moving said dissolver, and 35 illuminating means behind said dissolver, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

FRANK HARVEY URRY.

Witnesses:

ARTHUR E. EDWARDS,
D. K. BOYLE.