

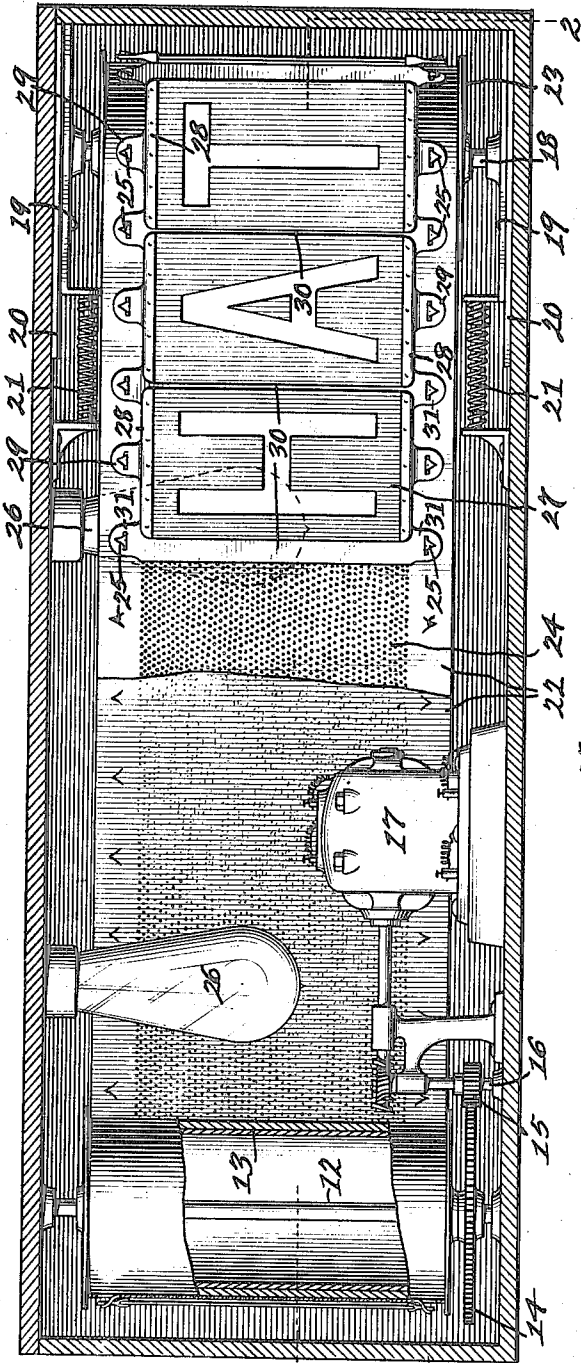
H. CROSS.
MOVING SIGN.

APPLICATION FILED OCT. 5, 1915.

1,188,154.

Patented June 20, 1916.

2 SHEETS—SHEET 1.



WITNESSES

J. C. Larson
J. C. Larson

Fig. 1.

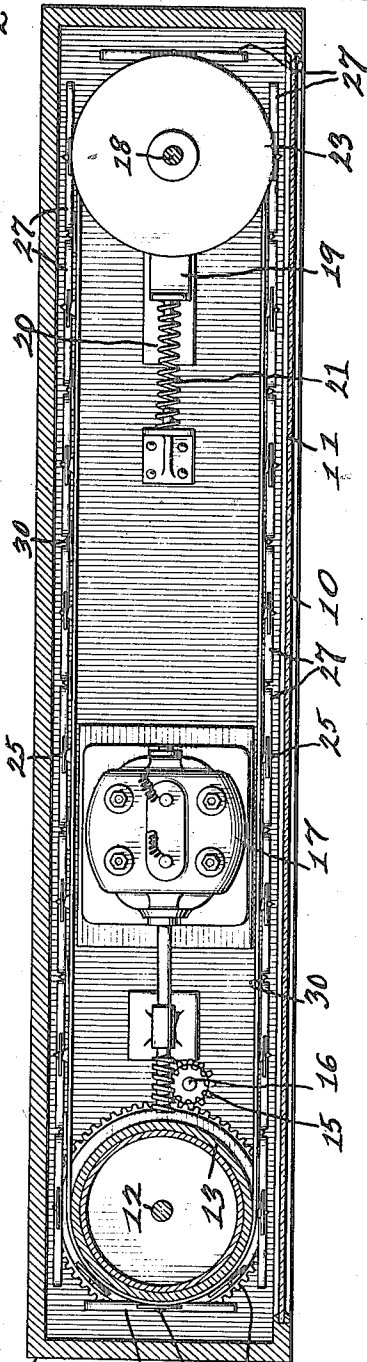


Fig. 2.

INVENTOR

Harry Cross
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BY

M. M. Co.
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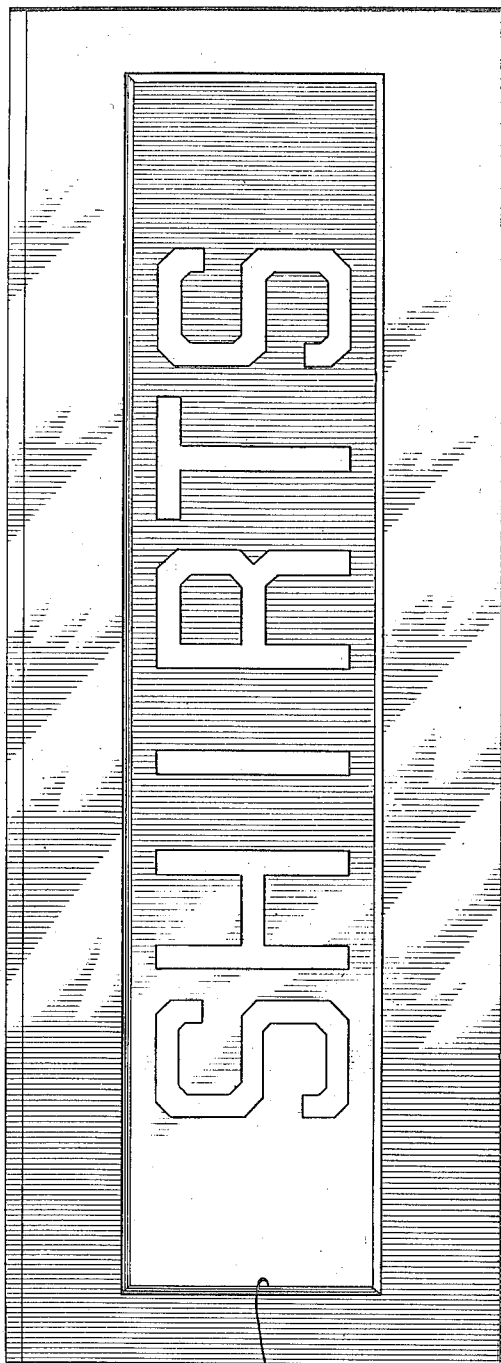
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WITNESSES

J. C. Larsen

Fig. 3.

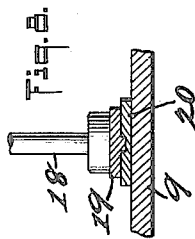


Fig. 6.

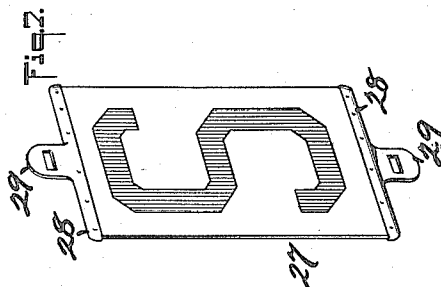


Fig. 2.

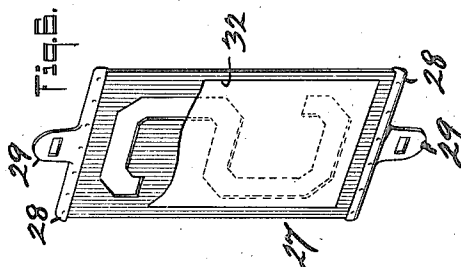


Fig. 4.

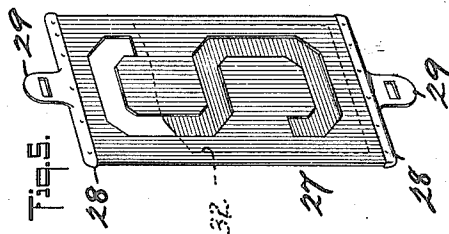


Fig. 5.

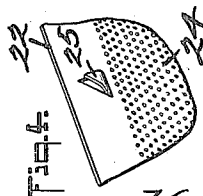


Fig. 1.

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UNITED STATES PATENT OFFICE.

HARRY CROSS, OF BIGTIMBER, MONTANA.

MOVING SIGN.

1,188,154.

Specification of Letters Patent. Patented June 20, 1916.

Application filed October 5, 1915. Serial No. 54,198.

To all whom it may concern:

Be it known that I, HARRY CROSS, a citizen of the United States, and a resident of Bigtimber, in the county of Sweet Grass and State of Montana, have invented certain new and useful Improvements in Moving Signs, of which the following is a specification.

My invention relates to moving signs adaptable for both day and night formed of an endless belt having letter plates detachably connected therewith, whereby said plates may be easily and quickly removed to display different legends or other subject matter by the substitution or re-arrangement of other plates or those previously employed.

My invention is fully described in the following specification, of which the accompanying drawings form a part, in which like characters refer to like parts in each of the views, and in which:—

Figure 1 is a longitudinal section taken through a casing containing my invention, the latter being shown partly in section to show details; Fig. 2 is a section taken approximately on the line 2—2 of Fig. 1; Fig. 3 is an interior elevation of the casing with the effect produced at night; Fig. 4 is a fragmentary detail view of the belt; Fig. 5 is a front view of one type of letter plate which I employ, showing a colored transparent sheet at the rear, partly torn away; Fig. 6 is a rear view thereof; Fig. 7 is a face view of another type of letter plate which I employ; and Fig. 8 is a sectional view of a detail of the construction.

In Figs. 1 to 3, inclusive, I have shown a casing 9 provided with a window 10, with or without a transparent sheet 11, and which casing may be made of any desired size and shape. Adjacent one end of the casing is a vertical shaft 12 suitably journaled in the casing and serving as a support for a drum 13 having a gear wheel 14 secured thereto and enmeshed with a pinion 15 on a shaft 16 rotated by means of a motor 17 of any desired type, although I prefer electric as shown. Adjacent the other end of the casing 9 is a vertical shaft 18 carried by slides 19 movable along tracks 20 in the top and

bottom of the casing, said shaft being held away from the shaft 12 by means of suitably braced springs 21, this arrangement serving to maintain an endless belt 22 under tension at all times and which is passed around the drum 13 and a complementary drum 23 on the shaft 18, each of said drums being provided with upper and lower flanges for preventing the escape of the belt 22 therefrom. The belt 22 is preferably formed of a thin ribbon of metal profusely perforated as shown at 24, and the upper and lower margins of said belt are provided with oppositely directed points stamped from the metal, as shown at 25, at predetermined and preferably equidistant points, these points serving as hooks and being directed away from the perforated portion of the belt. I also supply one or more lamps 26 within the casing in desired positions, electric lamps being shown, and it will be obvious that the light from the lamps will pass through the perforations of the belt and be visible at the window 10, and it will be noted that the vertical dimension of said window is slightly less than the width of the perforated portion of said belt, whereby the hooks 25 are not visible from the exterior of said window.

My letter plates 27 are made of any desired material, the use of paper board being at present contemplated, and I provide the upper and lower edges thereof with metal clips 28 having, each, a perforated tongue 29 adapted to engage the respective hooks 25, as clearly shown in Figs. 1 and 2. Inasmuch as a narrow space occurs between the plates 27 when in operative positions, I provide blanks 30 of slight width provided at the ends thereof with perforated tongues 31 similar to the tongues 29, thereby preventing the passage of light between said plates.

The letters on the plates may be made by printing, by painting, or by cutting in the manner of stencils, and I may back the same with a colored sheet 32, Figs. 5 and 6, in order to provide a decided contrast from the color of the body of the plates 27, my preference being for white letters on a black ground, but this is arbitrary as will be un-

derstood. I will, however, use a dark background in order to prevent any possibility of the bars of light through the perforations from indicating the presence of such perforations at the front of my device.

5 In view of the manner of suspending the letter plates 27, the latter are not bent when passing around either of the drums, and they may be quickly installed and removed
10 by merely forcing the opposite edges of the band or belt 22 toward each other with the convex surface thus formed to the rear or interior of the casing.

It will thus be seen that I provide a moving sign which is adapted to various uses,
15 either in small form for shop windows, or in large form for outdoor advertising, the possibility of instant letter plate removal and substitution making the device universal in
20 its application.

While I have shown letters cut from the plates 27 in Figs. 5 and 6, I may superimpose the letters on the plate as shown in Fig. 7, and I may make other changes which
25 come within the scope of the following

claims without departing from the spirit of my invention or sacrificing its advantages.

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

1. A sign of the class described, comprising a casing, an endless perforated belt therein, means for moving said belt, a lamp within said belt, and a plurality of plates bearing desired characters carried by said belt, said plates having, each, a perforation at each end thereof, and said belt having hooks for engagement with the respective perforations of said plates. 30 35

2. In a device of the class described, a belt provided with a plurality of perforations in the body thereof, and a plurality of integral hooks at each side of said belt. 40

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 45

HARRY CROSS.

Witnesses:

WILLIAM CHURCHILL,
S. C. BADE.