E. BUHLMANN, JR.

ILLUMINATED ADVERTISING APPARATUS.

APPLICATION FILED SEPT. 9, 1913.

1,238,882. Patented Sept. 4, 1917.

Fig. 4.

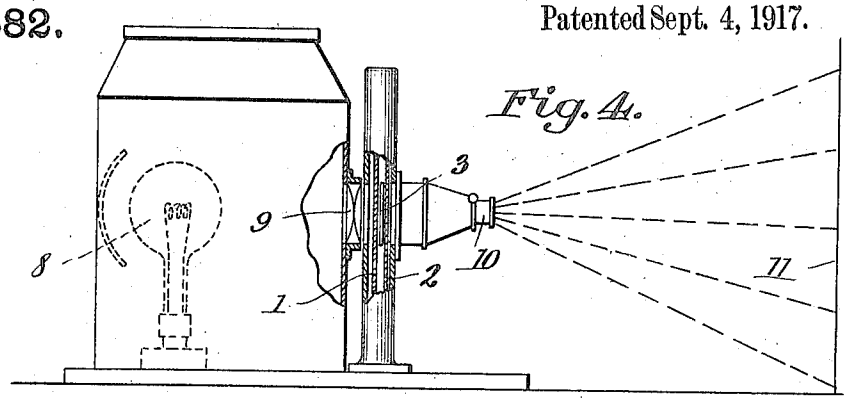


Fig. 1.

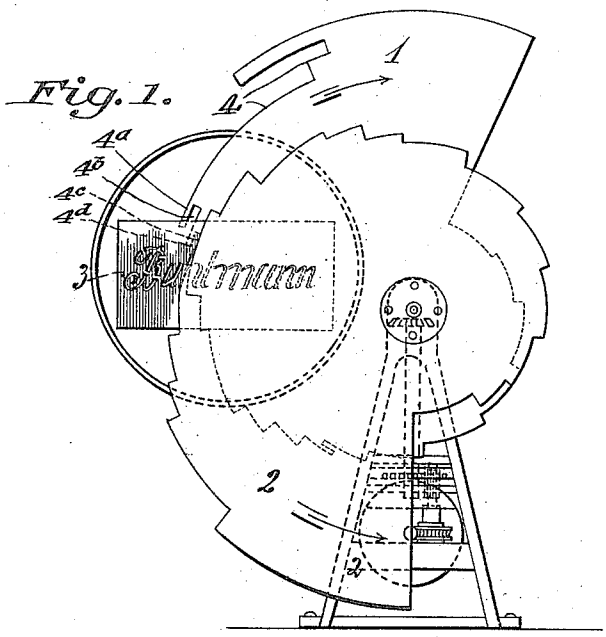


Fig. 2.

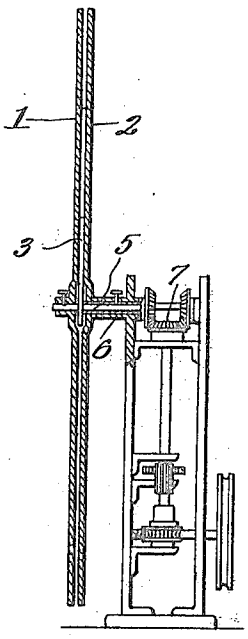
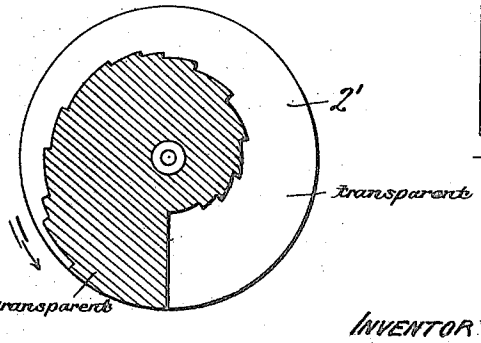


Fig. 3.



WITNESSES

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ILLUMINATED ADVERTISING APPARATUS.

1,238,882. Specification of Letters Patent. Patented Sept. 4, 1917.

Application filed September 9, 1913. Serial No. 788,833.

To all whom it may concern:

Be it known that I, EMIL BUHLMANN, Jr., a citizen of the German Empire, residing at Dusseldorf in the Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Illuminated Advertising Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has for its object an apparatus for advertising purposes, and is intended to enable letters and words to be displayed as if they were in course of being written. This has hitherto been done by a slotted shutter or plate located between the source of light and the stencil, and causing the word contained on the stencil to appear on a glass or other wall surface. The outlines of the letters in this case always come into view either in vertical or horizontal direction.

Now this invention permits letters and words either in German or Latin script to be shown in such a way that the down-strokes are reproduced from above downward, and the up-strokes from the bottom upward.

The invention is described hereunder with reference to the accompanying drawings in which:

Figure 1 is a front view of the apparatus,
Fig. 2 is a lateral section through the same,
Fig. 3 is a view of a modified plate, and
Fig. 4 shows the improved apparatus connected with the projection device.

The new apparatus comprises two plates 1 and 2 mounted closely one behind the other and revolving in opposite directions. These plates 1 and 2 are provided with cut out portions 4, arc shaped projections 4^a, 4^d and arc shaped slots 4^b, 4^c, the slot 4^b being between projections 4^a and 4^d and the projection 4^d being between the slots 4^b and 4^c, all corresponding to the outlines of the letters on the stencil 3 mounted between the plates 1 and 2. The plates 1 and 2 are mounted on two co-axial shafts 5 and 6, like, for example, the hands of a clock, which plates however, are continuously rotated uniformly in opposite directions to one another, (for instance by means of a bevel pinion 7) so that after a single rotation they resume again the original position. While, for example, the plate 2 which as shown in Figs. 1 and 2, turns to the left in opposite direction to that of the hands of a clock, exposes and covers by means of the cut out portions 4 and the solid part respectively the down-strokes of a letter of the stencil, the other plate 1, rotating to the right or clockwise, similarly uncovers the upstrokes.

The word produced may be also made visible through transparent disks, such as the disk ′ (Fig. 3) in which the part corresponding to the plates 1 and 2 is made opaque in any desired manner, for instance by blackening.

Fig. 4 shows an arrangement by which the produced word may be made visible by means of a projection device and in this construction 8 is the source of light, 9 the condenser, 10 the objective and 11 the light screen upon which the word is produced.

I claim as my invention:—

1. In a device of the character described, the combination of a screen having script characters thereon comprising lines; a pair of plates adapted to cover said characters, and each plate being adapted for complete, repeated, unreversed continuous rotation, at a constant speed and direction of rotation, the direction of rotation of one plate being opposite to that of the other plate; said plates being progressively cut away at their edges in opposite directions, the cuts having such shape that when said plates are simultaneously rotated with a complete, repeated, unreversed continuous rotation at a constant speed and direction, the direction of rotation of one plate being opposite to that of the other plate, the plates progressively uncover the lines of said characters substantially in the order that the lines are usually made by hand.

2. In a device of the character described, the combination of a screen having script characters thereon comprising lines; a pair of plates adapted to cover said characters, and each plate being adapted for complete, repeated, unreversed continuous rotation, at a constant speed and direction of rotation, the direction of rotation of one plate being opposite to that of the other plate; said plates being progressively cut away at their edges in opposite directions, the cuts having such shape that when said plates are simultaneously rotated with a complete, repeated, unreversed continuous rotation at a constant speed and direction, the direction of

rotation of one plate being opposite to that of the other plate, the plates progressively uncover the lines of said characters substantially in the order that the lines are usually made by hand; said plates being adapted to repeatedly progressively uncover said lines and script as above stated an indefinite number of times without changing the constant speed or constant direction of the movement of either of the plates.

3. In a device of the character described, the combination of a screen having script characters thereon comprising lines; a pair of plates adapted to cover said lines, each plate being for complete, unreversed, continuous movement at a constant speed and direction, the direction of movement of one plate being opposite to that of the other plate; said plates being progressively cut away at their edges in opposite directions, the cuts having such a shape that when said plates are simultaneously moved with an unreversed continuous rotation at a constant speed and direction, the direction of movement on one plate being opposite to that of the other plate, the plates progressively uncover the lines of said script substantially in the order that they are usually made by hand.

4. In a device of the character described, the combination of a screen having script characters thereon comprising lines; a pair of plates adapted to cover said lines, each plate being for complete, unreversed, continuous movement at a constant speed and direction, the direction of movement of one plate being opposite to that of the other plate; said plates being progressively cut away at their edges in opposite directions, the cuts having such a shape that when said plates are simultaneously moved with an unreversed continuous movement at a constant speed and direction, the direction of movement on one plate being opposite to that of the other plate, the plates progressively uncover the lines of said script substantially in the order that they are usually made by hand; said plates being adapted to repeatedly progressively uncover said lines and script as above stated an indefinite number of times without changing the constant speed or constant direction of the movement of either of the plates.

5. In a device of the character described, the combination of, a screen having characters thereon; a pair of plates adapted to cover the characters; and means for rotating the plates in opposite directions; said plates being progressively cut away at their edges in opposite directions; one of said plates being provided with an arc-shaped slot between a pair of arc-shaped projections.

6. In a device of the character described, the combination of, a screen having characters thereon; a pair of plates adapted to cover the characters; and means for rotating the plates in opposite directions; said plates being progressively cut away at their edges in opposite directions; one of said plates being provided with an arc-shaped projection between a pair of arc-shaped slots.

In testimony whereof I affix my signature, in presence of two witnesses.

EMIL BUHLMANN, JR.

Witnesses:
EMIL BUHLMANN,
GUSTAV BRÖSE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."