H. MILLER.

ADVERTISING CLOCK.

APPLICATION FILED JUNE 24, 1914.

1,137,512.

Patented Apr. 27, 1915.

2 SHEETS—SHEET 1.

FIG. 1.

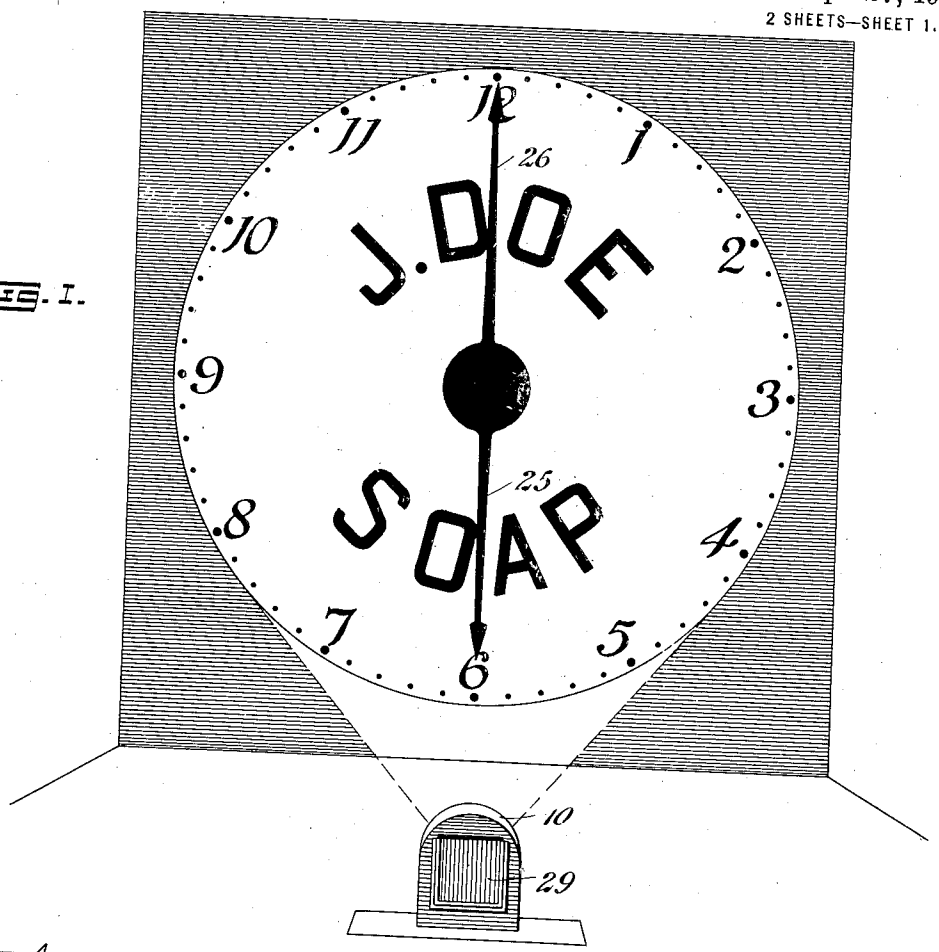


FIG. 4.

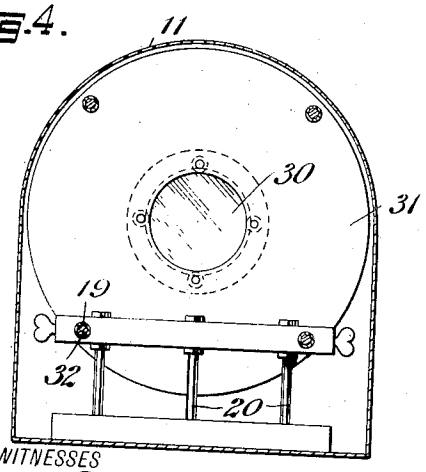
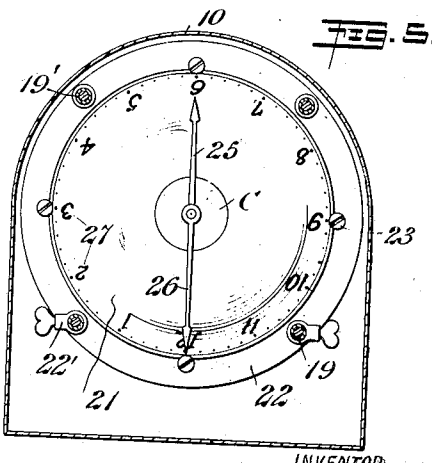


FIG. 5.



WITNESSES

G. Robert Thomas

Geo. L. Beeler

INVENTOR

Harry Miller

BY Munn & Co

ATTORNEYS

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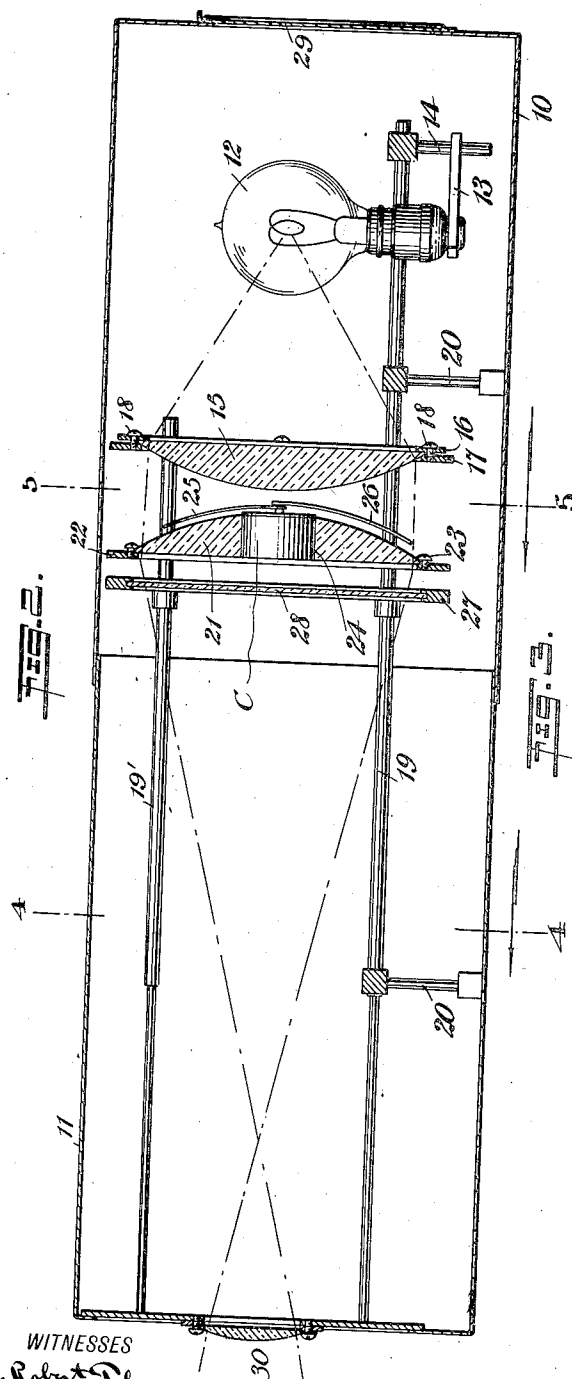

FIG. 2.

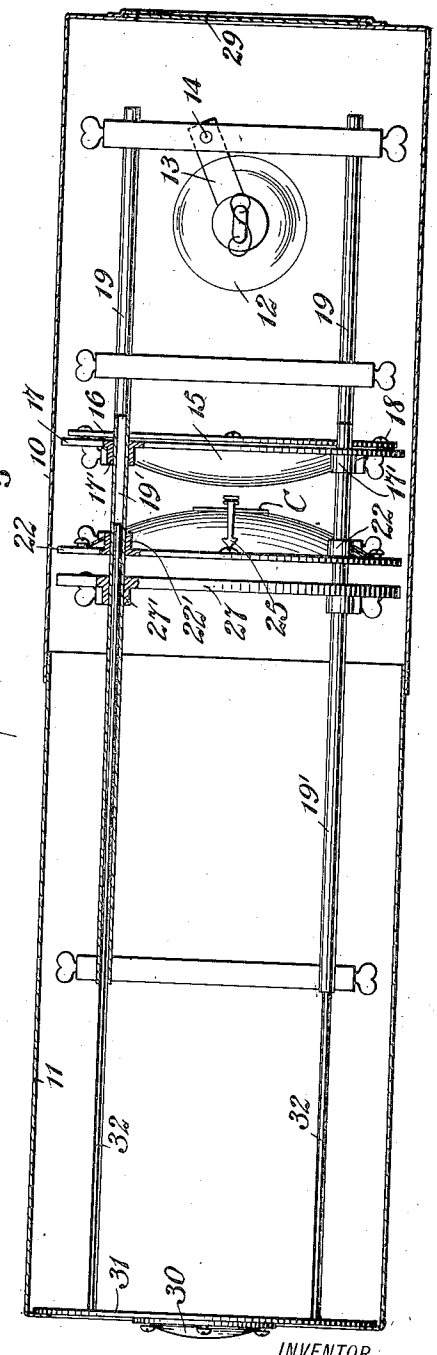

FIG. 3.

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UNITED STATES PATENT OFFICE.

HARRY MILLER, OF NEW YORK, N. Y.

ADVERTISING-CLOCK.

1,137,512. Specification of Letters Patent. Patented Apr. 27, 1915.

Application filed June 24, 1914. Serial No. 846,994.

To all whom it may concern:

Be it known that I, HARRY MILLER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Advertising-Clock, of which the following is a full, clear, and exact description.

This invention relates to illuminated signs or advertising devices, and has particular reference to means for projecting to any suitable distance and forming in any desired size the simulation of an illuminated clock face.

Among the objects of the invention, therefore, is to provide in a device of this character improved means for projecting time, in the manner just stated, in a satisfactory way to different distances and providing also means for displaying upon the clock face a suitable advertisement.

The foregoing and other objects of the invention will hereinafter be more fully described and claimed and illustrated in the drawings forming a part of this specification in which like characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a diagrammatic perspective view of an apparatus involving the principles of this invention, the main portion of the figure being a representation of a distant clock face; Fig. 2 is a vertical longitudinal section of the apparatus; Fig. 3 is a horizontal section; and Figs. 4 and 5 are vertical transverse sections on the corresponding lines of Fig. 2.

The several parts of the device may be made of any suitable materials, and the relative sizes and proportions, as well as the general design of the mechanism, may be varied to a considerable extent without departing from the spirit of the invention hereinafter more fully set forth and specifically claimed.

Referring more particularly to the drawings I show at 10 a tubular casing within which are located the principal parts of the apparatus; and at the rear end of the casing and telescoping therealong is an auxiliary casing 11.

At 12 I show a lamp or source of light, preferably in the nature of a high power electric lamp to which current may be provided by any suitable means. Said lamp is shown as supported upon a bracket 13 adjustably mounted upon a pivot 14. At 15 I provide a vertically arranged condensing lens preferably of plano-convex construction, the convex surface of which is remote from the lamp. This lens is of large size and considerable strength and is preferably supported between the two parts 16 and 17 of a split ring. These two parts are shown provided with binding screws 18 for securing the lens between them, and the ring 17 is provided preferably with hubs 17′ whereby the rings and the lens carried thereby are adjustably connected at any desired distance from the lamp along horizontal tubular supports 19 shown as two in number and mounted upon pedestals 20 extending upwardly from the bottom of the casings.

Another condensing lens shown at 21 is preferably of the same size and general character as the lens 15 and arranged with its convex surface closely adjacent the convex surface of the first lens. The lens 21 is carried by a supporting ring 22 and secured thereto by binding screws 23 or the like. This ring 22 has hubs 22′ through which it is adjustably supported along the tubular members 19. The lens 21 is provided in its center with an axial opening 24 in which is fitted a clock or other time piece C of any suitable construction and of comparatively small diameter but of a length sufficient to provide for the necessary works and to carry in the usual manner the hour and minute hands 25 and 26. The clock characters 27 are arranged preferably upon the convex face of the condensing lens 21 and hence the hands of the time piece are preferably arranged between the two lenses. It is obvious, however, that the characters and hands may be otherwise related to the lens without affecting the result desired.

The upper portions of the supporting rings for the condensing lenses are connected to tubular supports 19′ whereby the rings are maintained in proper position parallel to each other. Adjacent the rear face of the lens 21 is provided a frame 27 of any suitable character adapted to support a slide 28 carrying an advertisement, picture or other device to be exhibited. The frame 27 is provided with hubs 27′ and means for connecting it to the supporting members 19 and 19′.

The rear end of the casing 10 is provided with a door 29 whereby access may be had to the lamp and other parts within the cas-

ing, the door opening, however, being normally kept closed in practice. The front end of the casing 11 is fitted with an object lens 30 through which the rays of light are projected by means, above described, within the casing. The lens 30 is carried preferably by a disk or plate 31 from which project rearwardly a plurality of parallel rods 32 arranged coaxially with the tubes 19 and 19′ and with which they telescope. These rods 32 coöperate with said tubular supports to provide a stable support for the clock and projecting mechanism within the casing irrespective of all of the adjustments that may be necessary for focusing the apparatus according to different distances.

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

1. In a device of the character set forth, the combination of front and rear telescopically arranged casings, the front end of the front casing comprising a disk, an object lens secured to the disk, a plurality of parallel rods extending rearwardly from the disk, a source of light within the rear casing, condensing means including a lens between the source of light and the object lens, said condensing lens having a central hole therein, a time piece fitted in said hole, tubular members supported from the bottom of the casing members, and means securing the condensing lens and time piece upon said tubular members, the rods aforesaid coöperating with said tubular members during all adjustments of the casing members with respect to each other.

2. In apparatus of the class set forth, the combination of a source of light, a pair of condensing lenses of plano-convex form arranged in alinement with each other and with their convexities adjacent each other in front of the source of light, one of said lenses having an axial opening, a time piece fitted in said opening, supporting members arranged parallel to the axis of the lenses, means adjustably connecting the lenses to the supporting means maintaining them in proper parallel relation to each other, and a slide support adjustably connected to said supporting means adjacent the time piece, substantially as set forth.

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

HARRY MILLER.

Witnesses:
GEO. L. BEELER,
PHILIP D. ROLLHAUS.