No. 790,739. PATENTED MAY 23, 1905.

C. A. McNEAL.

WORKING SIGN.

APPLICATION FILED JAN. 19, 1905.

Fig. 1.

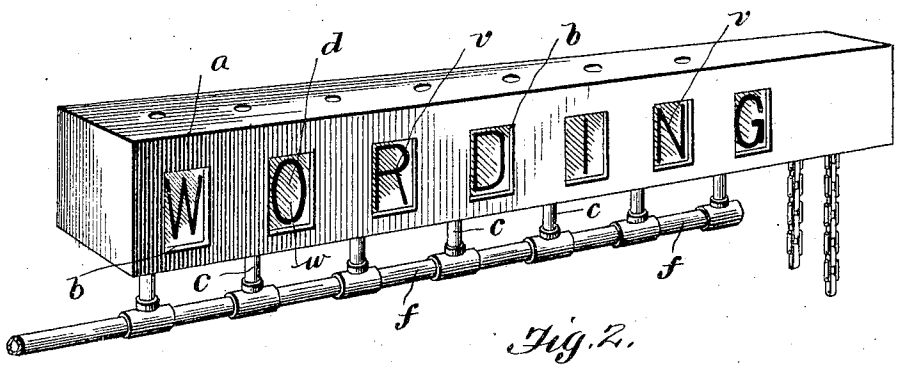


Fig. 2.

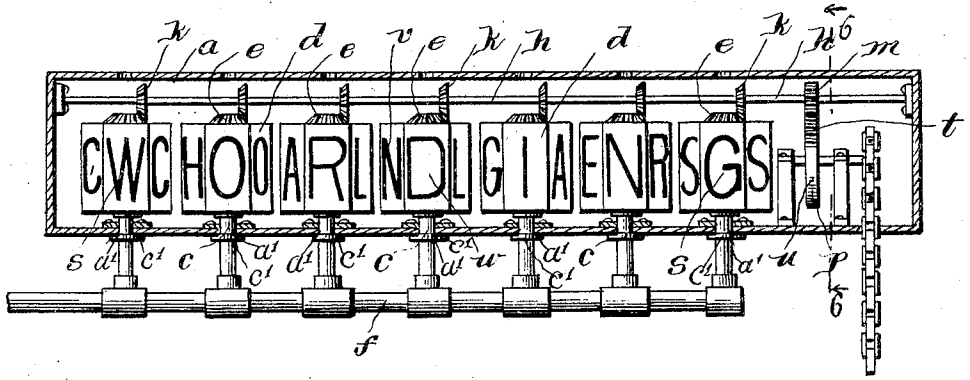


Fig. 3.

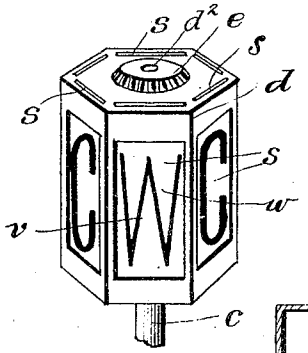


Fig. 4.

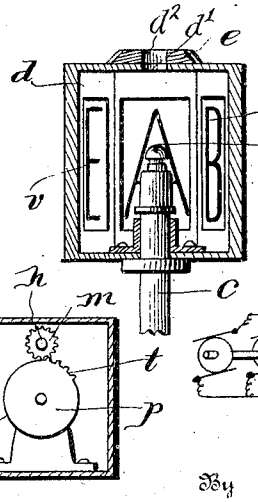


Fig. 5.

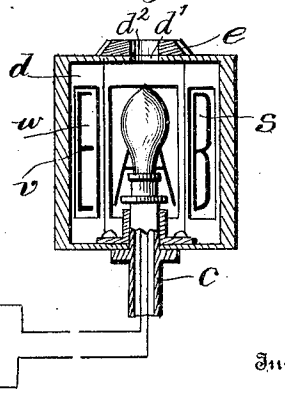


Fig. 6.

Witnesses

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No. 790,739. Patented May 23, 1905.

UNITED STATES PATENT OFFICE.

CHARLES A. McNEAL, OF NEWARK, OHIO.

WORKING SIGN.

SPECIFICATION forming part of Letters Patent No. 790,739, dated May 23, 1905.

Application filed January 19, 1905. Serial No. 241,845.

To all whom it may concern:

Be it known that I, CHARLES A. McNEAL, a citizen of the United States, and a resident of Newark, in the county of Licking and State of Ohio, have made a certain new and useful Invention in Working Signs; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of the invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a detail perspective view of one of the lanterns. Fig. 4 is a detail sectional view of the same. Fig. 5 is a similar view showing incandescent-bulb connection. Fig. 6 is a section on the line 6 6, Fig. 2.

The invention has relation to illuminated signs; and it consists in the novel construction and combination of parts, as hereinafter set forth.

The object of the invention is to provide a simple and economical working sign for advertising purposes.

In the accompanying drawings the letter *a* designates the oblong box or incasement, having the series of openings *b* in the front wall and, if desired, in the rear wall also, as when the sign is to have two faces. To the floor of the box are secured the pivot-stems or spindles *c*, on which are placed the revoluble prismatic lanterns *d*, which are arranged in series in rear of the series of openings *b* at the proper distance to cause the side of each lantern to approximately close its respective opening in the face-wall when turned square or parallel therewith. The top of each lantern is provided with an opening d', a bevel-wheel *e* being secured to the top of each lantern and having a similar registering opening d^2 for the escape of the heated air from the lantern. Each shaft *c* is designed to be hollow and to be connected to a gas-supply pipe *f*, forming a supporting-rod for the incasement. To each shaft is attached a suitable burner, as indicated at *g*, or an insulated wire from an electric supply may be introduced through the hollow shaft for connection with an incandescent burner within the lantern. The hollow shafts *c*, which extend through openings a' in the bottom of the incasement, also have collars c' for supporting the incasement.

Above the series of lanterns along the middle line of the incasement extends the rotary shaft *h*, which is provided with the vertical bevel-pinions *k*, arranged in series thereon and engaging the bevel-wheels of the lanterns. To the end of this shaft is secured the cog-wheel *m*, which is operated by the mutilated cog-wheel *p*. The lanterns are usually six-sided or eight-sided, and the number of teeth on the mutilated cog-wheel *p* is designed to be in accordance therewith, being one-sixth or one-eighth of the number of teeth on the shaft-wheel *m*, which is usually twenty-four—that is to say, the sign being designed for six words the lanterns are six-sided, and the mutilated drive-wheel has four teeth arranged together, as shown at *t*, the remainder of the periphery at *u* being depressed and without teeth, so that it will not act upon the shaft-wheel, and the shaft and lanterns will remain stationary during the time this low part is passing the teeth of the shaft-wheel.

Each lantern is provided with slides for its faces, as indicated at *s*, such slides being movable in slideways of the lantern-frame. The slide is of glass, having the letter *v* or ornamental design translucent and of any desired color, while the background *w* is opaque. By using glass of different colors these letter-slides may be made in a very economical manner. Opaque slides are provided for use in case one or more of the words designed to be used has less than the number of letters required to occupy all the apertures or openings of the sign.

In operating this sign a spring-motor or electric motor may be employed to turn the mutilated drive-wheel. This drive-wheel is brought to engagement with the shaft-wheel after the shaft is turned to adjust the series of lanterns square to the front and so that the letters of the first word of the proposed sign will be exposed at the apertures *b*. This adjustment is readily and exactly accomplished, because the shaft and lanterns can be adjusted

at will when the teeth of the drive-wheel are out of engagement with the shaft-wheel. The mechanism being set in operation, the illuminated words will appear in succession at the apertures, and intervals of time of more or less length, according to the size of the mutilated drive-wheel, will be provided, during which the words will remain in sight.

Having described the invention, what I claim, and desire to secure by Letters Patent, is—

A mechanical sign having in combination an incasement provided with a series of perforations, a corresponding series of prismatic lanterns having openings in their bottom walls, a series of hollow lantern-supporting shafts extending through said openings, burners connected to the upper ends of said shafts, bevel gear-wheels centrally secured to the tops of said lanterns and having openings registering with openings in the tops of said lanterns, a longitudinal shaft having bevel gear-wheels meshing with the bevel-wheels of said lanterns, the end cog-wheel, and the mutilated drive-wheel engaging said end cog-wheel, substantially as specified.

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

CHAS. A. McNEAL.

Witnesses:
B. F. McDONALD,
WM. H. SEDGWICK.