A. M. SMILEY.

STEREOPTICON.

APPLICATION FILED MAY 20, 1911.

1,037,346.

Patented Sept. 3, 1912.

3 SHEETS—SHEET 1.

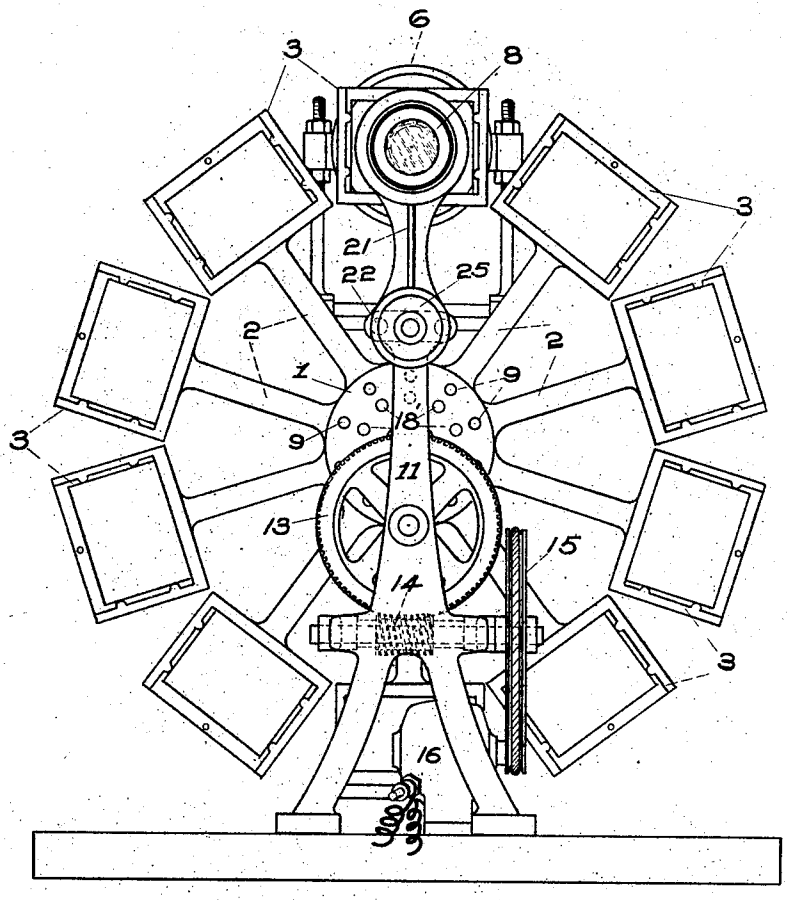

FIG. 1.

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Witnesses

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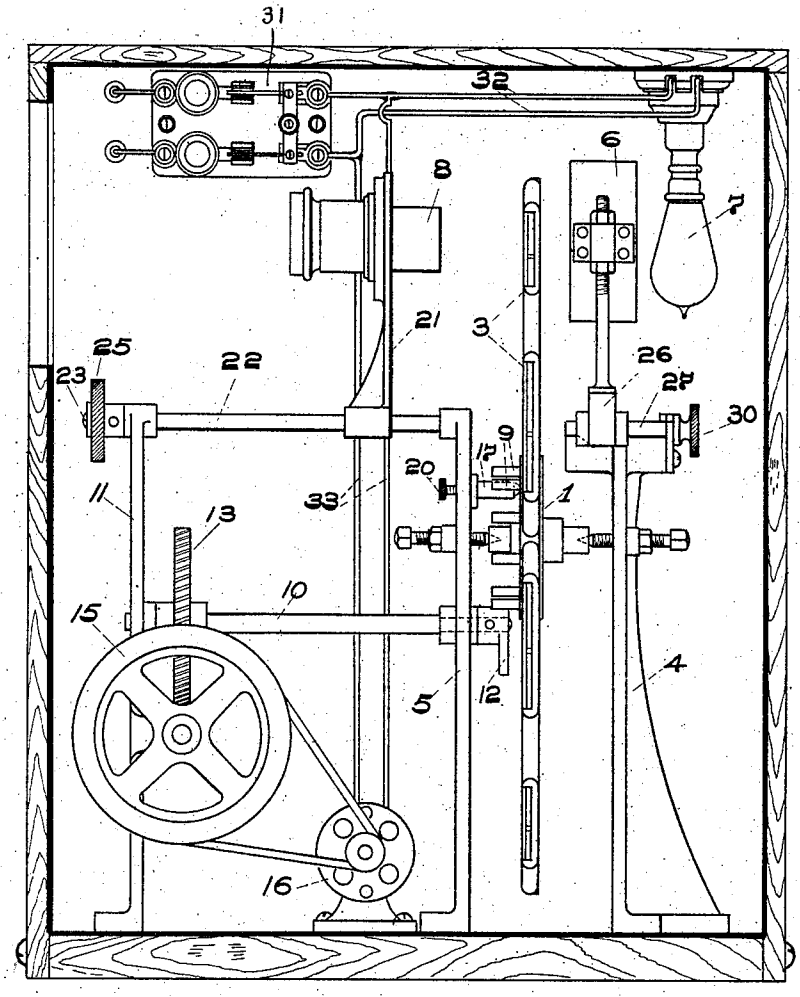

FIG. 2.

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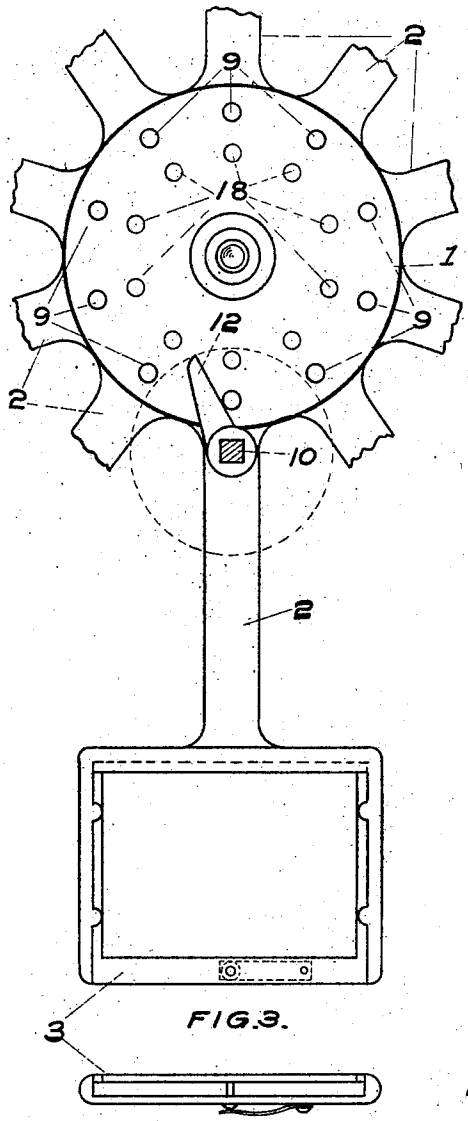

FIG. 3.

FIG 5

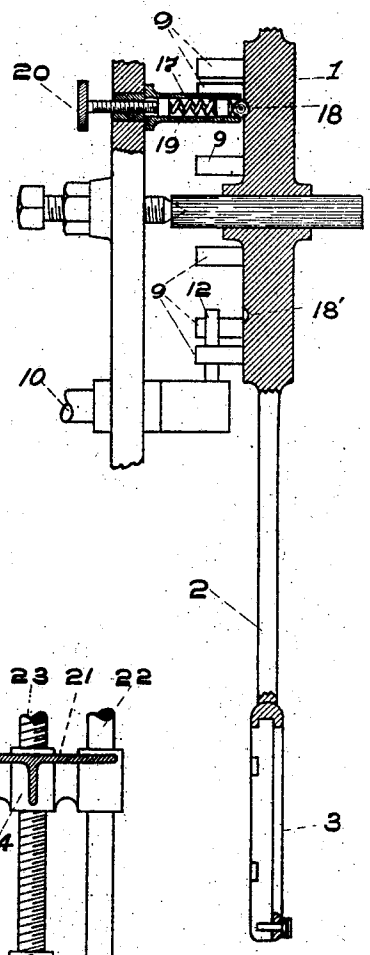

FIG. 4.

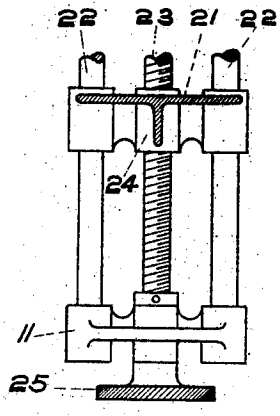

FIG. 7.

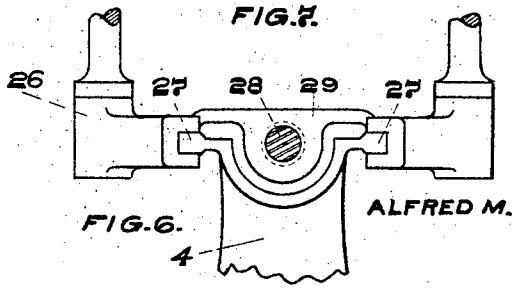

FIG. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

ALFRED M. SMILEY, OF FRANKLIN, PENNSYLVANIA.

STEREOPTICON.

1,037,346. Specification of Letters Patent. Patented Sept. 3, 1912.

Application filed May 20, 1911. Serial No. 628,359.

To all whom it may concern:

Be it known that I, ALFRED M. SMILEY, citizen of the United States, residing at Franklin, in the county of Venango and State of Pennsylvania, have invented certain new and useful Improvements in Stereopticons, of which the following is a specification.

The object, construction and operation of my improved stereopticon are herein set forth with sufficient clearness to enable those skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings which form a part of this application, the several views whereof are as follows:

Figure 1 is a front elevation of my improved stereopticon, Fig. 2 is a side elevation of my stereopticon showing the same inclosed for out-door use. Figs. 3, 4, 5, 6 and 7 are details.

The same reference numerals are applied to identical parts in all the views.

The object of my invention is, to provide a stereopticon for the particular purpose of displaying advertising matter, though other information or illustrative matter may be displayed thereby as desired.

The construction of my improved stereopticon is as follows: I construct a wheel composed of a hub 1, having a number of radial arms 2, each of which is provided upon its outer end with a plate or transparency-holder 3. Said wheel is mounted between brackets 4 and 5 so as to revolve vertically. Mounted upon one side of said wheel, and adjustably positioned with reference thereto, is a condenser 6, and positioned in proximity to said condenser is a suitable light 7. Upon the opposite side of the wheel, and in correct register or alinement with the plate-holder 3, condenser 6 and light 7, is a lens 8 arranged to receive the light transmitted through said condenser and the transparency contained in said frame 3, and to project the same upon a suitably positioned screen. In order to bring each of the various plate-holders 3 into the proper position consecutively between the lens and the light, so that its subject will be projected upon the screen, I provide the following mechanism. The hub 1 of the wheel is provided with a number of pins 9 which project outwardly from said hub in a line parallel with the axis of said wheel. Below the center of said wheel is revolubly mounted a shaft 10, suitable bearings for which are provided in brackets 5 and 11. The end of shaft 10 approximate to the wheel projects through its bearing and has an arm 12 rigidly affixed thereto, which, as the shaft 10 revolves, is adapted to engage a pin 9 and revolve wheel 1 sufficiently to bring a succeeding approximate frame 3 into its proper position of registry with the lens and light, so that its subject will be thereby projected upon the screen. I arrange to revolve shaft 10 continuously, and the mechanism provided for this purpose is as follows: To said shaft 10 is secured a worm-wheel 13 which meshes with and is driven by a worm 14 which is suitably mounted in bearings carried by the bracket 11. Upon the worm-shaft is affixed a pulley 15 which receives power from an electric motor 16. By this arrangement, it will be readily understood that while shaft 10 revolves constantly, wheel 1 is moved intermittently, each movement being an amount sufficient to bring one of the various holders into register with the projecting medium where the same is caused to rest for a certain interval of time, said interval being during one revolution of shaft 10.

In order to insure a positive stopping of the wheel in the desired position, and its retention there during the allotted interval, I provide a resilient detent, which is shown in section in Fig. 4, the construction of which is as follows: In the face of the wheel-hub are formed a number of depressions 18′. In the bracket 5 is inserted a tubular post 17, which is arranged with its outer open end in close proximity to the face of the wheel-hub. Within the bore of said post is placed a ball 18, arranged to occupy a depression 18′, when said depression passes or is positioned in front of post 17. Ball 18 is pressed outwardly by means of a spiral spring 19, the pressure of which is regulated by means of the screw 20. It will be readily understood that before motion can be imparted to the wheel, it will be necessary to overcome the resistance offered by said detent, which resistance is sufficient to insure against the accidental or irregular movement of said wheel.

It being desirable to arrange lens 8 so that its proper focal distance from the frames 3 may be readily secured, I make the same adjustable in this respect by means of the following construction: The bracket 21 which carries the lens is mounted upon two

rods 22, 22, (Fig. 7,) so that it may slide longitudinally thereon, a screw-threaded rod 23 passes through the bracket 21, and the sleeve 24 is formed into a nut to engage said rod 23, and by turning said rod by means of the wheel 25, the desired adjustment may be obtained. I also provide for adjusting the condenser 6 with reference to the light 7, which is accomplished in the following manner: The bracket 26, that carries the said condenser, is mounted to slide upon the ways 27 (Fig. 6) and by turning the screw 28, which passes through the screw-threaded yoke 29, said bracket and the thereto attached condenser may be adjusted as desired. A thumb-wheel 30 is attached to screw 29 for the purpose of revolving said screw.

In Fig. 2 I have shown my improved stereopticon inclosed in a box or case,—as it is constructed for outdoor service—for advertising purposes, and this view shows an electric switch 31, with conductors 32, passing to the light and other conductors 33 passing to the motor 16. Any suitable light may be used, also any suitable transmission between the motor and pulley 15 may be substituted for a belt, as for instance a chain or gears.

I am aware of the construction shown in certain Letters Patent of the United States issued to William G. Spiegel on the 12th day of April, 1892 for magic lantern advertising apparatus, but I hereby expressly disclaim such combination as is therein set forth.

What I claim and desire to secure by Letters Patent is—

In a stereopticon of the class specified, the combination of a continuously illuminated projecting device consisting of a continuously illuminated lamp, a horizontally and vertically adjustable condenser, and a lens adjustable in the direction of said condenser, with movable transparency-holders arranged to contain transparencies and to position the same in projective register in said projecting device, said transparency-holder consisting of a wheel composed of a hub and a plurality of radial arms attached to said hub, each carrying a transparency-holder at its outer end, a shaft in said hub for revolubly mounting said wheel, pins, corresponding in number to the number of said arms and holders, projecting horizontally from said hub, a revoluble shaft arranged with its axis in alinement with the axis of said first-mentioned shaft, means for continuously revolving said shaft, an arm upon said shaft arranged to engage one of said pins at each revolution, for the purpose of moving said wheel a portion of a revolution, bringing the succeeding one of said transparencies into focal register in said projecting device, and spring-actuated means tending to hold said wheel in said registry position.

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

ALFRED M. SMILEY.

Witnesses:
R. A. BIGLEY,
C. T. FELT.