No. 754,190. PATENTED MAR. 8, 1904.

A. & A. C. BECHTOLD.

CHANGEABLE EXHIBITOR.

APPLICATION FILED MAY 29, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

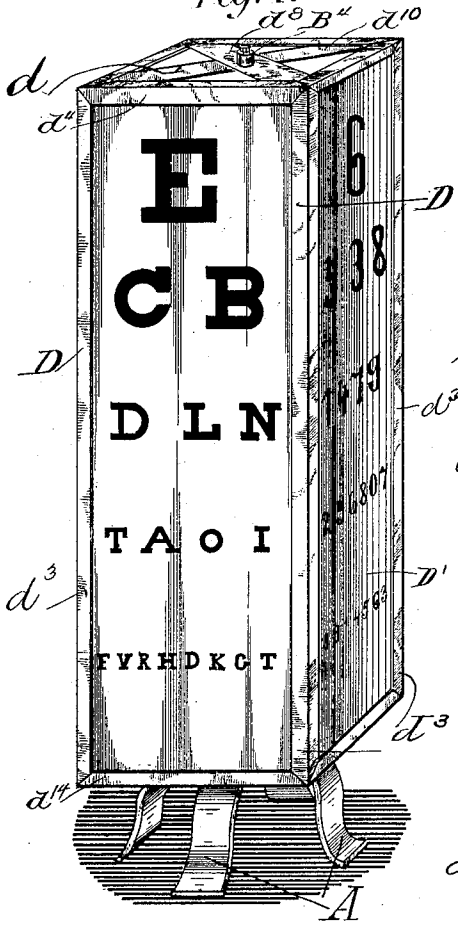


Fig. 2.

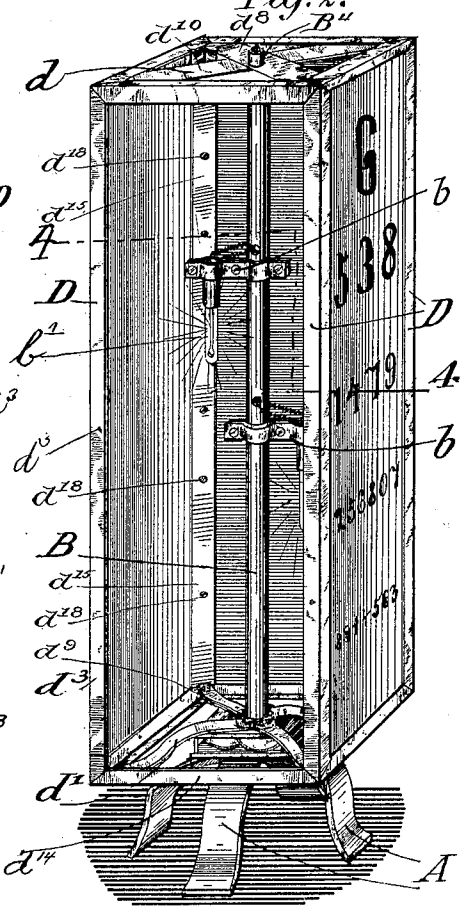


Fig. 3.

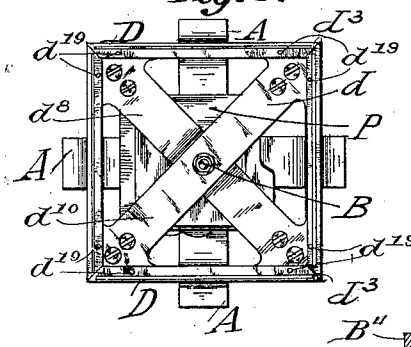
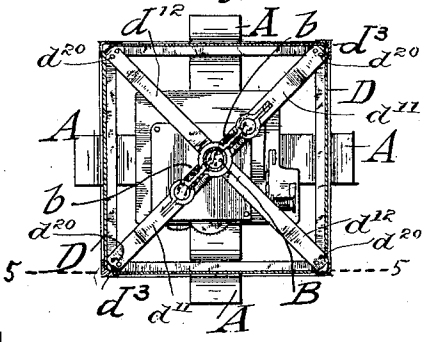


Fig. 4.



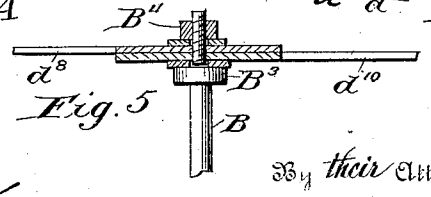


Fig. 5

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 6.

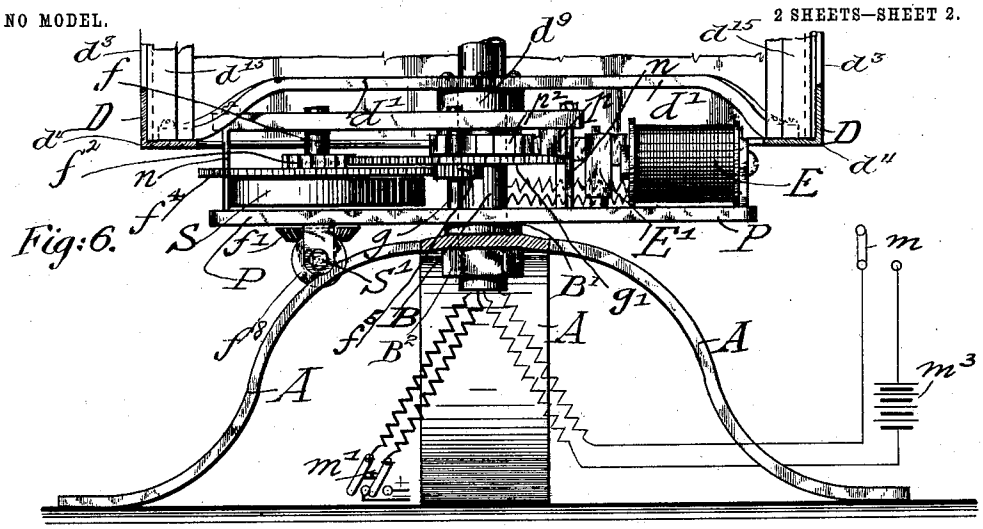
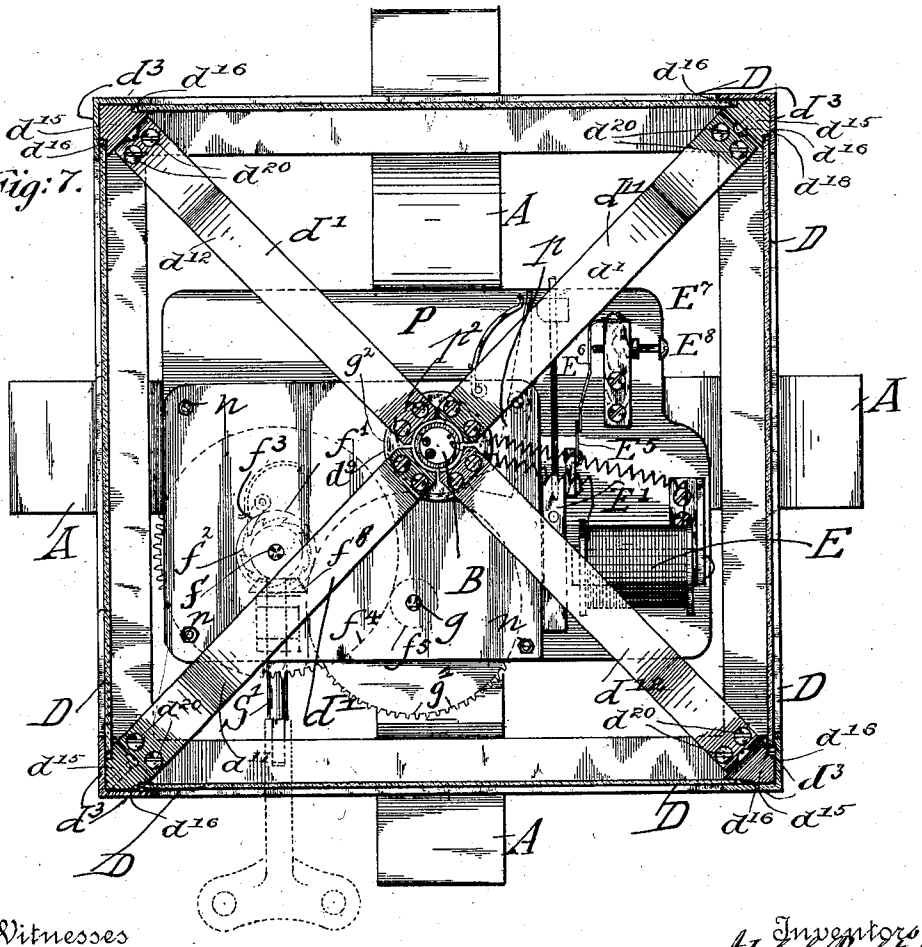


Fig. 7.



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No. 754,190. Patented March 8, 1904.

UNITED STATES PATENT OFFICE.

ADOLPH BECHTOLD AND AUGUST C. BECHTOLD, OF NEW YORK, N. Y.

CHANGEABLE EXHIBITOR.

SPECIFICATION forming part of Letters Patent No. 754,190, dated March 8, 1904.

Application filed May 29, 1903. Serial No. 159,262. (No model.)

To all whom it may concern:

Be it known that we, ADOLPH BECHTOLD and AUGUST C. BECHTOLD, citizens of the United States, residing in New York, borough of Brooklyn, and State of New York, have invented certain new and useful Improvements in Changeable Exhibitors, of which the following is a specification.

This invention relates to certain improvements in changeable exhibitors—that is to say, exhibiting devices of that class which are rotated on their axes in vertical or horizontal position for the use of opticians for testing the eyesight or for outdoor advertising purposes and the like; and our invention consists of a changeable exhibitor comprising a suitable frame provided with transparent panels having suitable letters and characters, advertisements, &c., on the same, light sources at the interior of said panel-frame, a shaft passing through the center of said frame, and a motor applied to said shaft, so as to rotate the frame and exhibit successively one panel after the other.

The invention consists, further, of certain details of construction and combinations of parts, which will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a perspective view of our improved changeable exhibitor. Fig. 2 is also a perspective view of the same with one of the panels removed, so as to show the interior arrangement of the same. Fig. 3 is a plan view of Fig. 1. Fig. 4 is a horizontal section on line 4 4, Fig. 2. Fig. 5 is a detail view showing the top part of the shaft and the top brace of the rotatable frame resting thereon. Fig. 6 is a vertical section through the lower part of the exhibitor, taken on line 5 5, Fig. 4, showing the motor devices for the same, drawn on a larger scale; and Fig. 7 is a plan view of the parts shown in Fig. 5.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the supporting-stand of our improved changeable exhibitors. To the center of the stand A is attached by a washer B′ and nut B^2 a vertical tubular shaft B, the upper end of which is provided with a shoulder B^3, on which rests a diagonal top brace d of a frame D, which is made of square, hexagonal, or polygonal shape. For a square-shaped exhibitor the top braces d consist of two intercrossing members d^8 d^{10}, which are retained on the shoulder B^3 by a nut B^4. The frame D consists, further, of a bottom brace d', which also consists of two intercrossing members d^{11} d^{12}, provided at their point of intersection with a sleeve d^9, rotatable around the shaft B. Connected with the ends of the top and bottom braces d d' are stays d^{15}, parallel to the shaft B. The stays d^{15} are provided with grooves d^{16}, in which the transparent panels D′, provided with signs, characters, or painted letters are seated. For securely holding these panels in position angular corner-pieces d^3 are arranged, which hold the panels D′ in the grooves d^{16} of the stays d^{15}, and so prevent the same from falling out. The top and bottom of the panels are also held in position by suitable corner-pieces d^4 d^{14}, attached to the top and bottom braces d d'. The upright corner-pieces d^3 are held to the says d^{15} by screws d^{18} passing through the stays. The top corner-pieces are fastened to the intercrossing members d^8 d^{10} of the top brace d by means of screws or rivets d^{19}, while the bottom corner-pieces d^{14} are fastened to the intercrossing members d^{11} d^{12} by screws or rivets d^{20}. With the stationary center shaft B are connected radial arms b, from which are suspended suitable incandescent electric lamps b', which illumine the interior of the frame, and so cause the letters, characters, or other signs on the transparent panels D′ to be easily recognized. In place of using electric lamps receiving their current by means of conductors that are arranged in the tubular shaft gas-jets may be used, which are then connected with gas-pipes that pass through the tubular shaft to the supply-pipe. Intermittent rotary motion is imparted to the frame D by a motor which is arranged on a platform P below the diagonal cross-bars d^{11} d^{12} at the bottom of the frame D, which platform is connected by suitable connecting-bolts n with the lower part of the frame D.

The motor shown in the drawings is composed of a mainspring S, that is wound up by

means of a winding-shaft S′ on the under side of the platform P and movable by a key. (Shown in dotted lines in Fig. 6.) The arbor f of the motor-spring S is provided with a bevel gear or miter f', which engages with a bevel gear or miter f^8, secured to the driving-shaft S′. The arbor f is also provided with a ratchet-wheel f^2, engaged by a pawl f^3, and, further, with a gear wheel or pinion f^4, which meshes with a pinion f^5 on an intermediate shaft g, provided with another pinion, g', which in turn meshes with a pinion g^2, secured to a ratchet-wheel p^2, which is secured to the tubular sleeve d^9 B. By the unwinding of the spring S motion is imparted to the train described, and thereby the frame D rotated. This rotary motion is made intermittent by means of an electromagnet E, the armature E′ of which actuates a fulcrumed and spring-actuated pawl p, that engages the teeth of the ratchet-wheel p^2, which pawl p, momentarily withdrawn from engagement with the ratchet-wheel p^2, permits the turning of the sleeve d^9 for a certain distance until arrested again by the return of the pawl into mesh with the teeth of the ratchet, due to the release of the pawl by the armature. The electromagnet E is placed in circuit with an electric battery m^3 and switch or button m, so that on the closing of the circuit by pushing the switch or button m rotary motion is imparted to the panel-frame D, while a second switch m' controls the electric lamps arranged at the interior of the panel-frame.

The armature E′, which actuates the pawl p, is provided with a spring extension E^5, engaging with a spring E^6, fastened to a block E^7. This block E^7 is provided with a screw E^8, by means of which the spring E^6 may be adjusted so as to vary the throw of the armature E′ and make the same more or less sensitive.

Our improved changeable exhibitor is shown as arranged in such a manner that the panel-frame D rotates on a vertical shaft to be used for interior purposes—as, for instance, a device for testing the eyesight; but it is obvious that it can also be arranged so as to rotate around a horizontal shaft, in which latter position it would be better adapted for outdoor advertising-signs, railway-signs, and the like.

Our improved changeable exhibitor can be easily put up wherever there is electric power or gas-piping, either of which is then suitably connected, while the motor-controlling battery can be readily stored near or in the exhibitor.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A changeable exhibitor, consisting of a shaft, a frame supported by and rotatable around said shaft, having braces arranged transversely, and stays arranged parallel to the shaft and connecting the corners of the braces, transparent panels having letters, characters or other signs on the same, corner-pieces connected with said braces for holding the panels against the stays for supporting the same, illuminating means supported by the shaft at the interior of the frame, and means for intermittently rotating the panel-frame, substantially as set forth.

2. A changeable exhibitor, consisting of a shaft, a frame supported by and rotatable around said shaft, having braces arranged transversely, and stays arranged parallel to the shaft and connected with the corners of the braces, transparent panels having letters, characters or other signs on the same, corner-pieces connected with said braces for holding the panels against the stays for supporting the same, illuminating means supported by the shaft at the interior of the frame, a pinion connected with one of said braces, a clock-train engaging the pinion for rotating the same, a ratchet-wheel connected with the pinion, a pawl engaging the ratchet-wheel, and means for disengaging said pawl from the ratchet-wheel for permitting the same to rotate, substantially as set forth.

In testimony that we claim the foregoing as our invention we have signed our names in presence of two subscribing witnesses.

ADOLPH BECHTOLD.
AUGUST C. BECHTOLD.

Witnesses:
PAUL GOEPEL,
C. P. GOEPEL.