

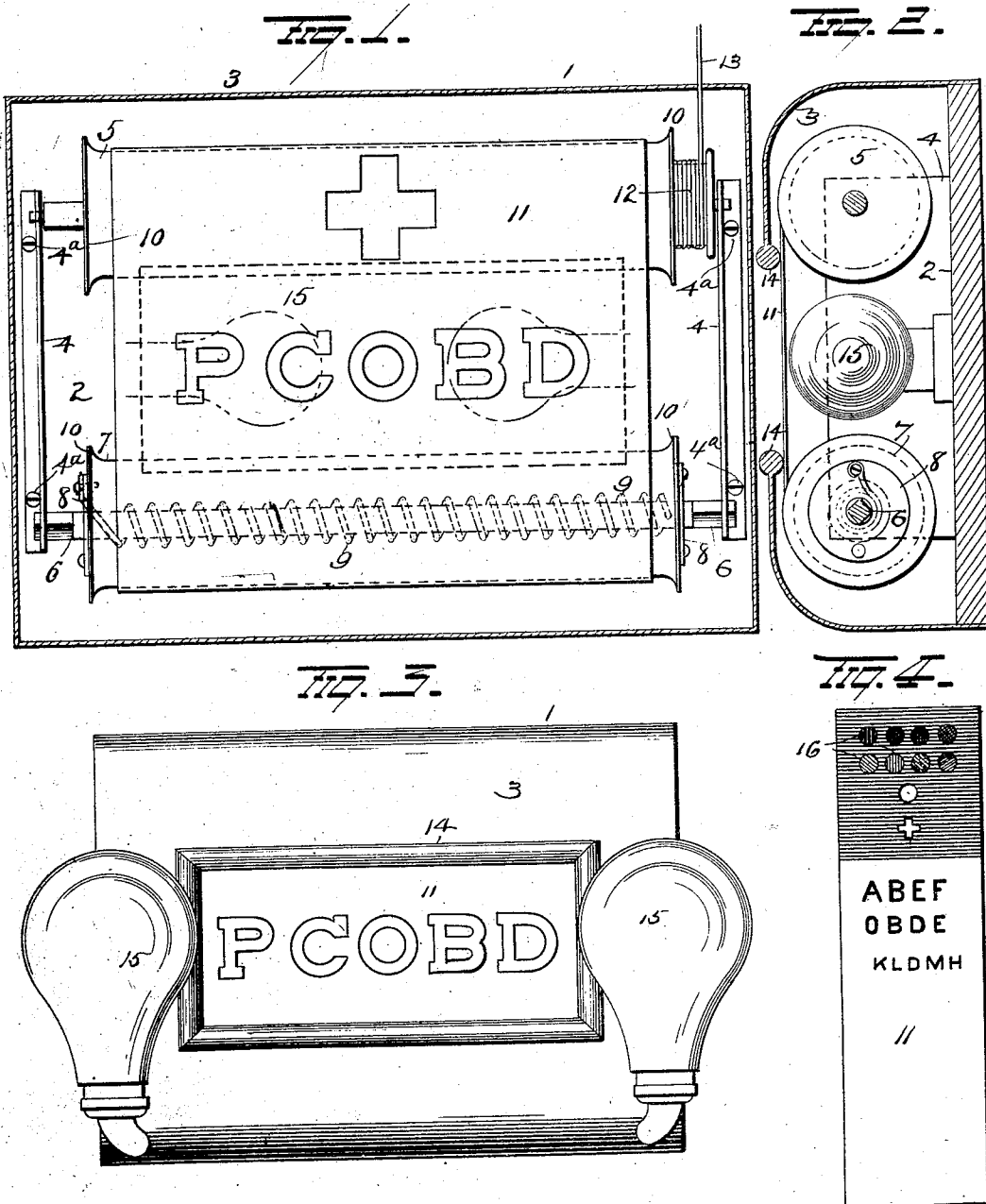
No. 726,101.

PATENTED APR. 21, 1903.

F. W. REICH & M. B. CLASON.
SIGHT TESTING APPARATUS.

APPLICATION FILED APR. 11, 1901.

NO MODEL.



WITNESSES
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UNITED STATES PATENT OFFICE.

FREDERICK W. REICH AND MILO B. CLASON, OF COLUMBUS, GEORGIA.

SIGHT-TESTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 728,101, dated April 21, 1903.

Application filed April 11, 1901. Serial No. 55,408. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK W. REICH and MILO B. CLASON, residents of Columbus, in the county of Muscogee and State of Georgia, have invented certain new and useful Improvements in Sight-Testing Apparatus; and we 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.

Our invention relates to an improvement in sight-testing apparatus, the object of the invention being to provide an improved apparatus of this character which can be operated from a distance to expose to view any of a series of characters to the exclusion of the others to test the sight of the patient.

With this object in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a front view showing the casing in dotted lines, illustrating our improvements. Fig. 2 is an end view of the same. Fig. 3 is a front view of a modified form of our invention, and Fig. 4 is a view of the curtain removed.

1 represents a cabinet comprising a board or block 2, to be secured to the wall or other support, and a curved plate 3 is secured to the board 2 and bulged outward therefrom, as shown. To the board 2 flanged parallel plates 4 are secured by screws 4^a and project at right angles thereto and are provided near their upper ends with aligned bearings for trunnions on the ends of a roller 5 and near their lower ends with angular openings to securely hold against rotation the angular ends of a shaft 6, on which latter a hollow roller 7 is mounted and provided at its ends with plates 8 to center the roller 7 on its shaft. A coiled spring 9 is mounted on shaft 6 inside roller 7 and is secured at one end to the shaft and at its other end to the roller, so that the revolution of the roller in one direction will contract the spring and the latter when the roller is released return it to its former position. Both of said rollers 5 and 7 are preferably provided at their ends with

flanges 10 to guide a curtain 11, which latter is secured at one end to roller 5 and at its other end to roller 7, the slack in said curtain being wound on the rollers and the curtain held taut and smooth between the rollers by the tension of spring 9. A pulley or drum 12 is secured on one end of roller 5 and has secured thereto and wound thereon a cord or chain 13, which latter projects through the cabinet and is adapted to be grasped by the operator to move the curtain to expose any of a series of characters thereon, as will be more fully hereinafter described. The front of the cabinet is made with an opening to expose a portion of the curtain and with a cylindrical flange 14 all around the opening to bear against the curtain and prevent any rays of light from the interior of the cabinet escaping between the flange and curtain. Electric incandescent lights 15 are mounted in the cabinet behind the curtain, or they may, if desired, be located outside of the casing, as shown in Fig. 3. Part of the curtain is made opaque and has openings cut therein to permit the bright light to shine through, forming a bright area, and test the muscles of the eye. Other openings having colored translucent material therein, as shown at 16, are provided for color tests, and part of the curtain is made translucent, and opaque letters, characters, &c., are depicted thereon, so as to be made visible by the interior illumination.

The operation of our improvements is as follows: The operator grasps the free end of cord or chain 13 and revolves roller 5, thus winding the curtain thereon and unwinding it from roller 7 to expose that portion of the curtain desired to the patient. The unwinding of the curtain from roller 7 contracts spring 9, so that when the tension on cord 13 is released the spring will return the curtain to its former position or to expose other characters on the curtain.

Various slight changes might be resorted to in the general form and arrangement of the several parts described without departing from the spirit and scope of our invention, and hence we would have it understood that we do not wish to limit ourselves to the precise details set forth, but consider ourselves

at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of our invention.

Having fully described our invention, what
5 we claim as new, and desire to secure by Letters Patent, is—

In a sight-testing apparatus, the combination with a casing having an opening therein, and rollers in said casing, of a curtain
10 wound on said rollers and extending from one to the other, a portion of said curtain being translucent and having several rows of opaque letters of different sizes thereon, another portion of said curtain being opaque,
15 the opaque portion having holes therein, col-

ored translucent material over some of said holes, means for illuminating the portion of the curtain which appears through the opening in the casing, and means for moving the curtain to expose the various portions thereof for the purposes herein set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

FREDERICK W. REICH.
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Witnesses:

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