C. F. DUTTON, Jr.

CONVERTIBLE PROJECTION LANTERN.

APPLICATION FILED MAR. 31, 1909.

951,418.

Patented Mar. 8, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

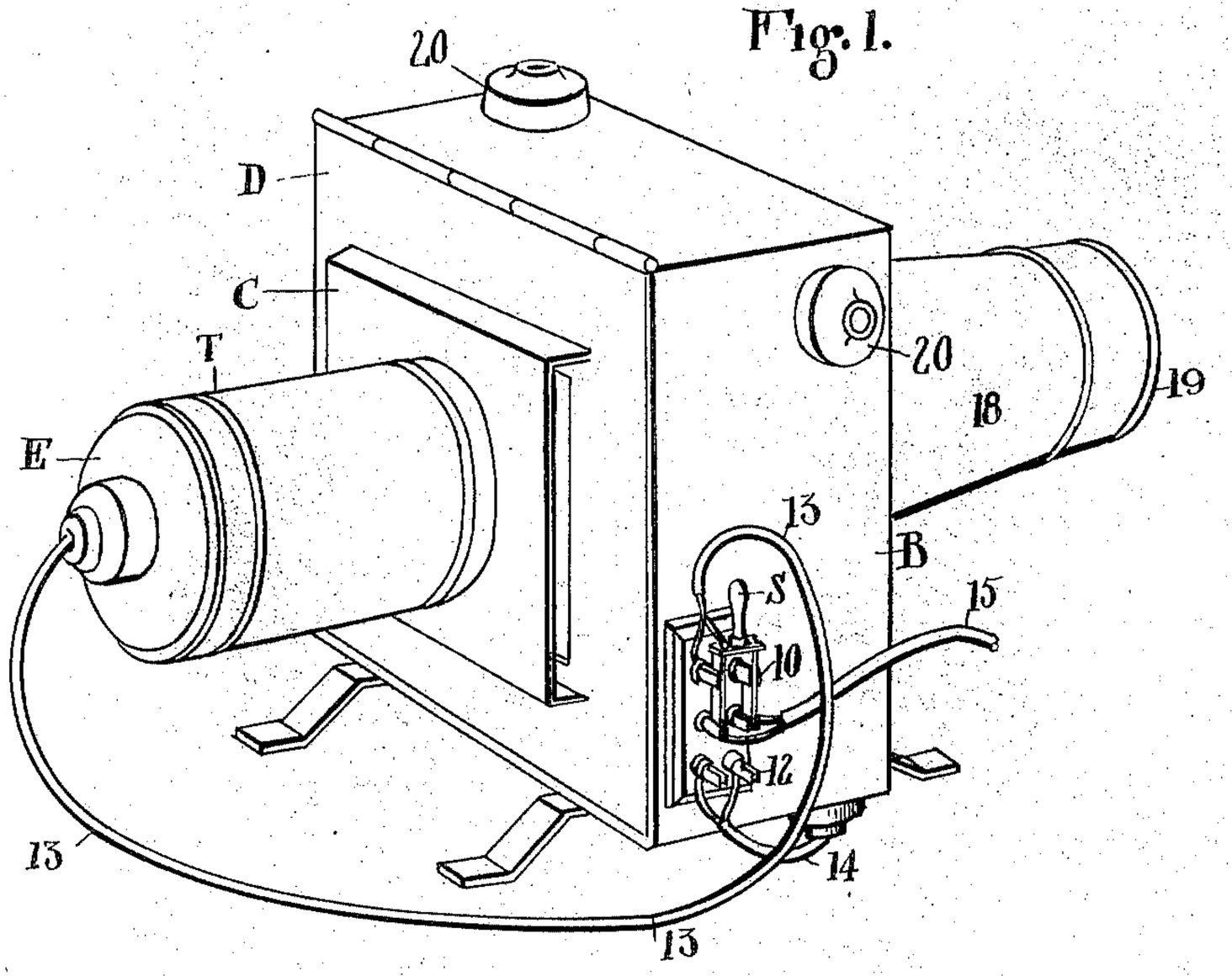
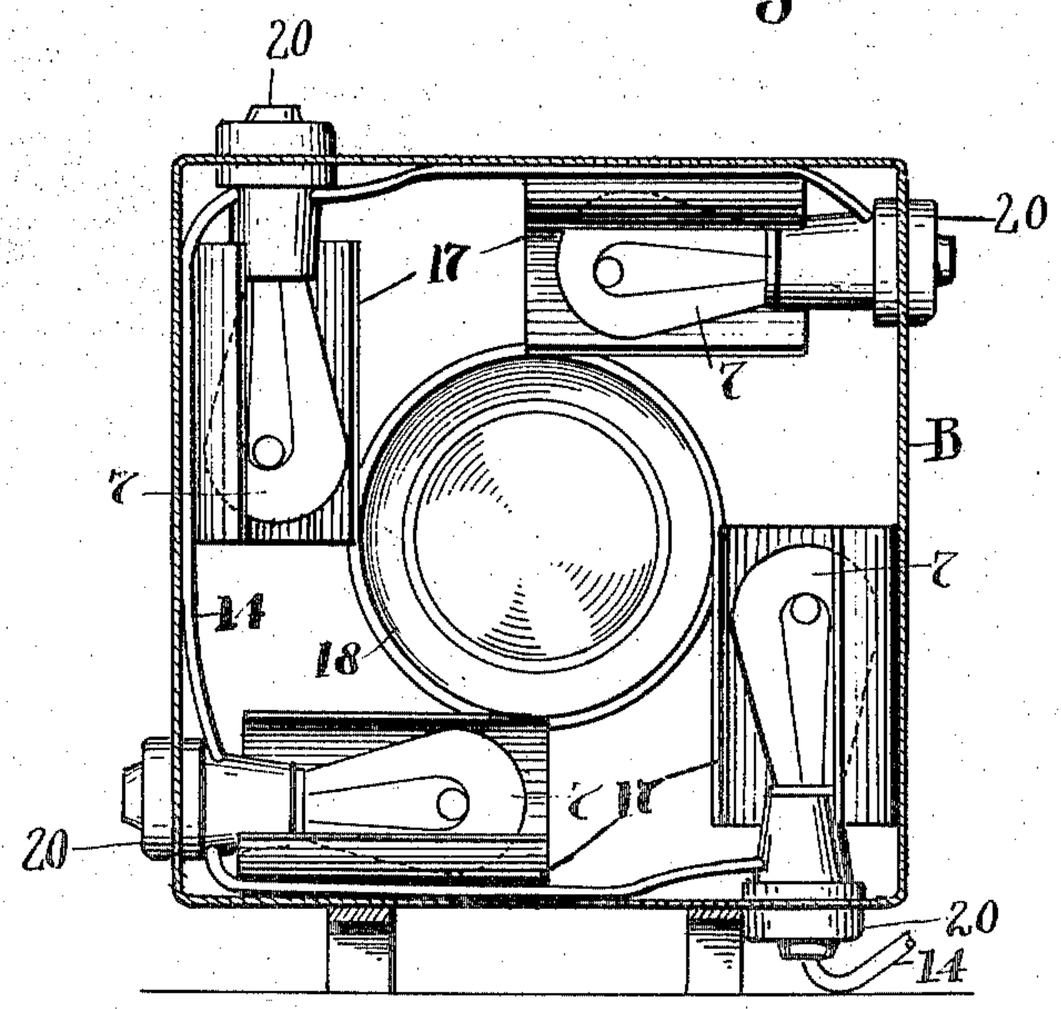


Fig. 2.



ATTEST

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2 SHEETS—SHEET 2.

Fig. 3.

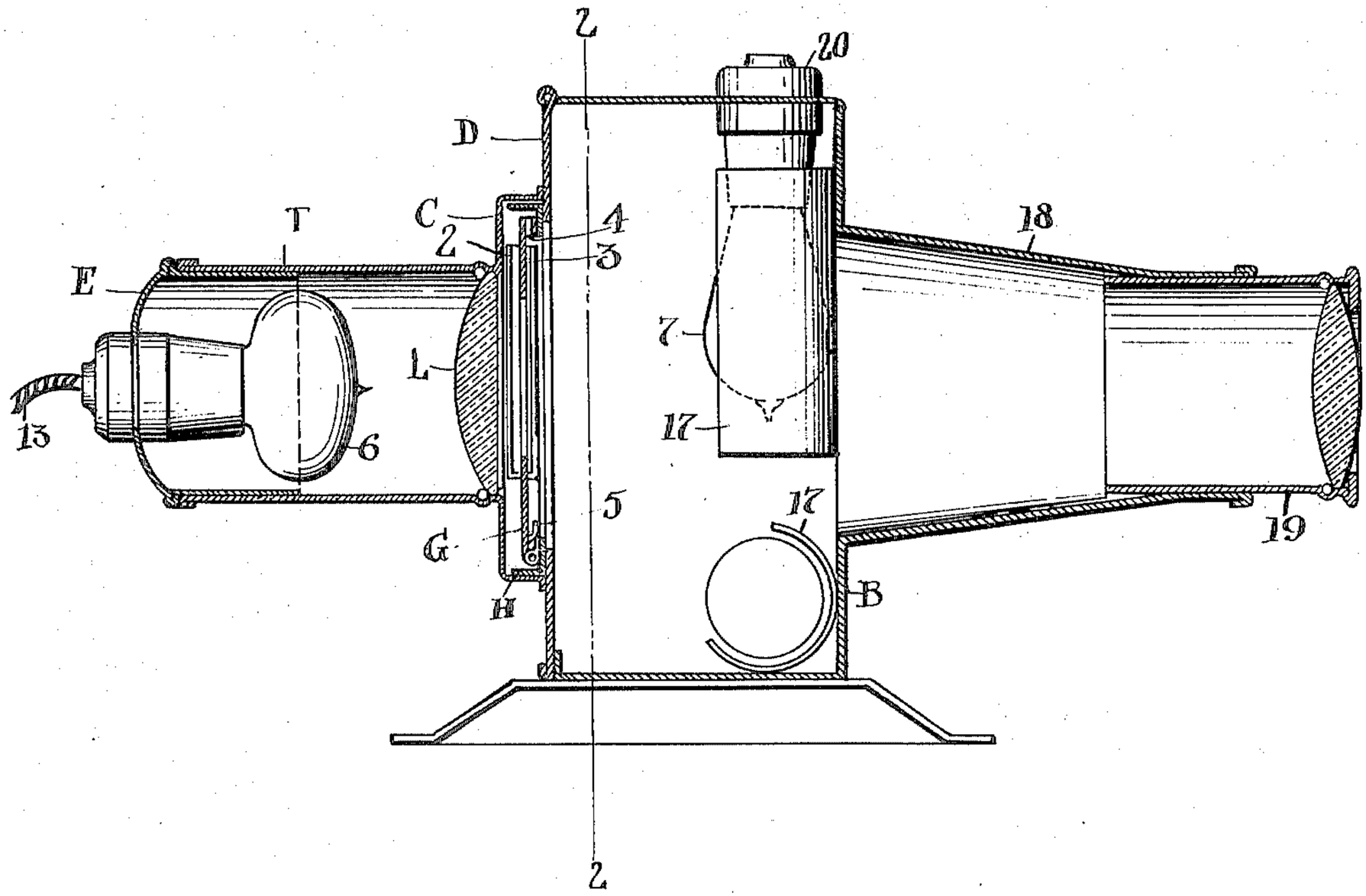
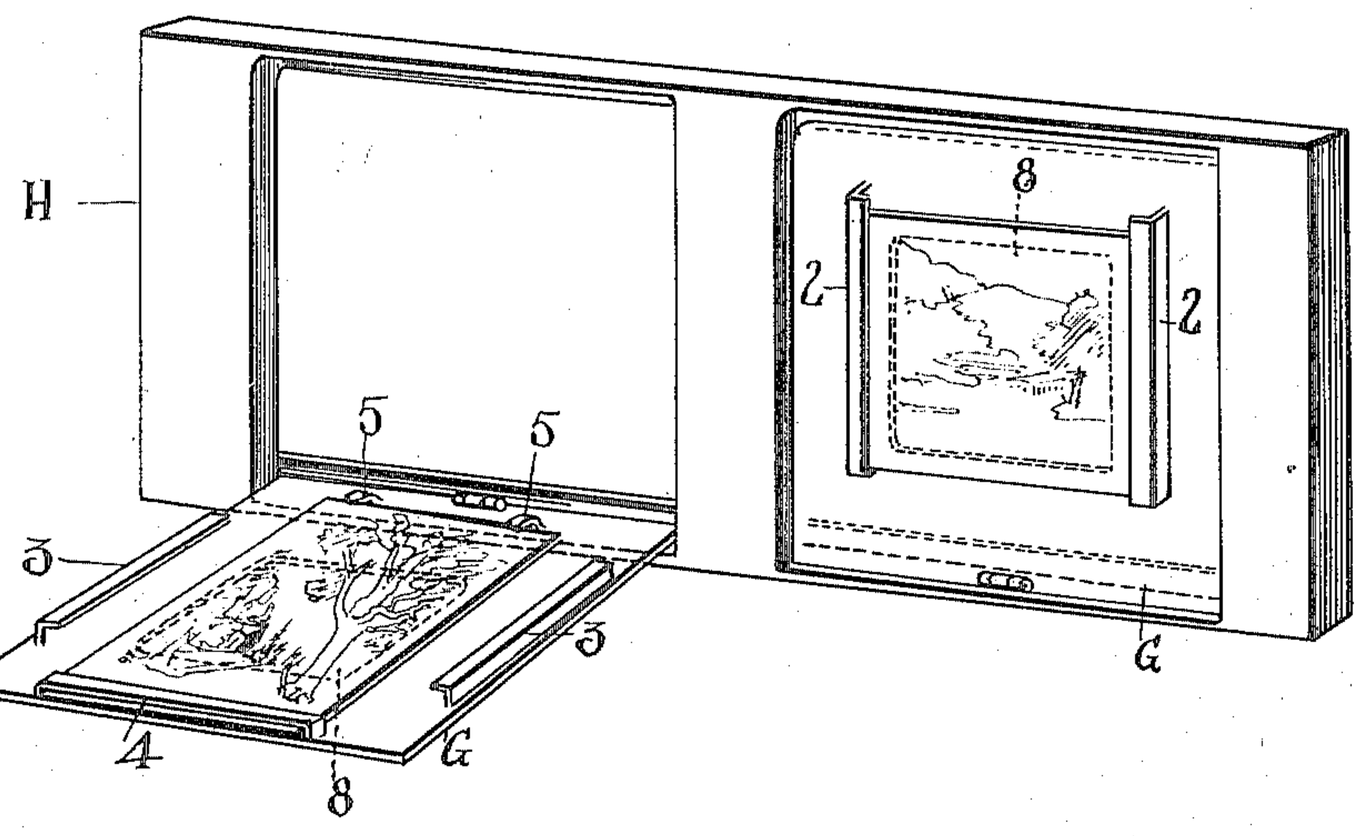


Fig. 4.



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CHARLES F. DUTTON, JR., OF CLEVELAND, OHIO.

CONVERTIBLE PROJECTION-LANTERN.

951,418. Specification of Letters Patent. Patented Mar. 8, 1910.

Application filed March 31, 1909. Serial No. 487,062.

To all whom it may concern:

Be it known that I, CHARLES F. DUTTON, Jr., citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Convertible Projection-Lanterns, of which the following is a specification.

My invention relates to a convertible projection lantern, and the invention consists in a lantern constructed and adapted to operate substantially as shown and described and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of the lantern complete. Fig. 2 is a cross sectional elevation thereof looking inward from a line corresponding to 2—2, Fig. 3. Fig. 3 is a sectional elevation of the lantern front to rear, and Fig. 4 is a perspective view of the slide holder with one of the slide doors or supports down and open.

The invention as thus shown provides a convertible projection lantern of a dual type, the same being adapted to display transparent and opaque pictures interchangeably or either at will and with the same means except as to the lamps. That is I can use either the usual so-called transparent or translucent slide or an opaque slide, like a post card, and any preferred order as to the exhibition of these different slides may be followed. For example, I can run both successively in a single holder, or I can run one style and then the other in series, or all one or the other as may be preferred, the essential idea being that the apparatus is capable of these variations without any change whatever in the apparatus itself, except in the application of the light, as will presently be seen.

To these ends the lantern is constructed with a suitable body or casing B, preferably of sheet metal and rectangular in shape, and has a door D at its rear which preferably is hinged at its top and adapted to close by gravity, so that access may be had to the interior of the body or casing for any purpose and especially to lamps 7. The said door has a covered space C on its outside open at the sides and adapted to receive slide holder H from either side, and said door has an opening in its center as usual and a lens L therein, and a fixed tube T incloses the lens and has a cap E slidably mounted therein or thereon and carrying a lamp 6. Said cap is slidable back and forth in said tube as well as removable therefrom, and it is to be observed that all this mechanism is mounted on door D.

The present form of slide holder, H, has a pair of openings and a bottom hinged slide support G for each opening. Said supports also have openings to expose the slides, and are provided on opposite sides with means to hold a card on one side and a glass slide on the other. Thus, the inner side of each support has card retaining flanges and keepers 3, 4 and 5, respectively, while the outer side of each support has flanged slide holders 2. As to this particular construction of holder the same is the subject matter of a concurrent application, Ser. No. 487061.

The lamp 6 is designed to be used with glass slides, while the four lamps 7, disposed in the four corners of the body of the lantern, are designed to be used when opaque cards are displayed. This latter use necessitates placing the lights in front of the cards to get the effects therefrom by reflection, and both the light or lamp 6 and lamps 7 are controlled by or from a single switch S, at the side of the box or body. Said switch has two sets of contacts 10 and 12 respectively, and contacts 10 have wire connection 13 to lamp 6, while contacts 12 have wire connections 14 to the several lamps 7. Current connections 15 go to said switch directly. It follows that the operator can change the lantern to use either transparent or opaque slides instantly by simply swinging the switch to one or the other set of contacts, and this is especially convenient when he is making mixed displays.

The lamps 7 are disposed in the corners of the body or casing at right angles to each other successively, which brings the bulbs into the most advantageous relations to the surface of the card upon which the light is to be thrown for display purposes. The sockets 20 of said lamps show externally in the casing.

A curved reflector and light shield 17 is placed about each lamp 7 to more effectively project the light upon the card carried by holder H, and at the same time screen the light from each side of tube 18 which carries slidable end cap 19 having the objective lens L^1 at its forward end.

What I claim is:—

1. A convertible lantern and a slide holder

therein constructed to support both translucent and opaque slides on opposite sides respectively and lamps both behind and in front of said holder adapted to be thrown into circuit at different times according to the slide used.

2. A convertible projection lantern having a removable slide holder adapted on opposite sides to receive translucent and opaque slides, in combination with lamps upon both sides of said holder and a switch and connections therefrom to said lamps adapted to light either the front or the rear lamps at a time and to darken the others.

3. In a convertible projection lantern, a door at the rear of the lantern casing hinged at its top, a slide holder therein having a door hinged at the bottom, in combination with lamps supported on opposite sides of said holder, said holder provided with means on opposite sides to carry both translucent and opaque slides and to use the same successively.

4. A convertible projection lantern having a hinged back door, a slide holder slidably mounted in said door provided on one side with means to support a translucent slide and on the opposite side with means to support an opaque slide and a lamp mounted on said door behind said holder.

5. A convertible lantern adapted to project both translucent and opaque objects and a holder constructed to support said objects in different positions thereon, in combination with lamps on opposite sides of said holder, a common source of energy therefor and means mounted upon said lantern adapted to light each set of lamps independently of the other.

6. A convertible projection lantern having a main body and a hinged door thereon, a tubular extension mounted on said door and a lens and a lamp therein, in combination with a slide holder in said body and a hinged door thereon constructed to support various kinds of slides.

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

CHARLES F. DUTTON, Jr.

Witnesses:

F. C. Mussun,

E. M. Fisher.