

G. S. RADFORD.
 COLOR MATCHING ROOM.
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1,423,882.

Patented July 25, 1922.

Fig. 1.

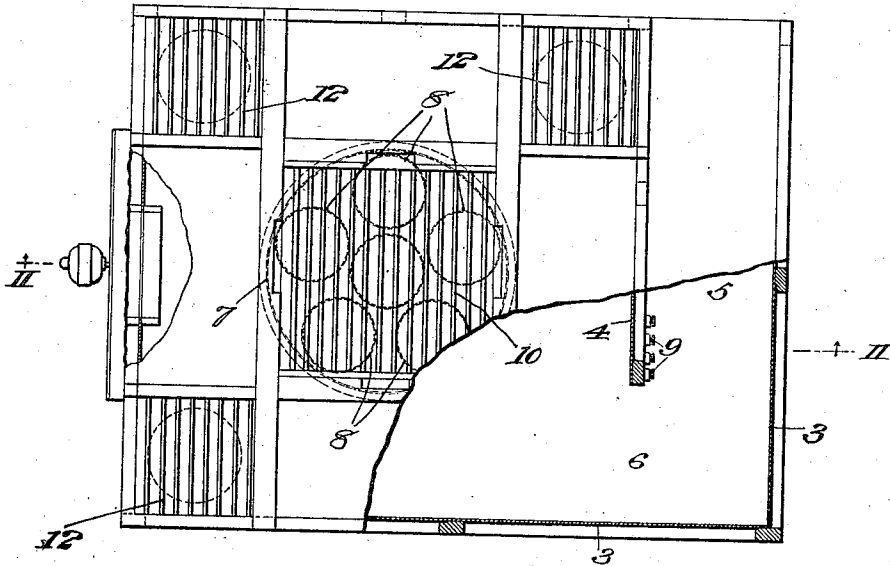
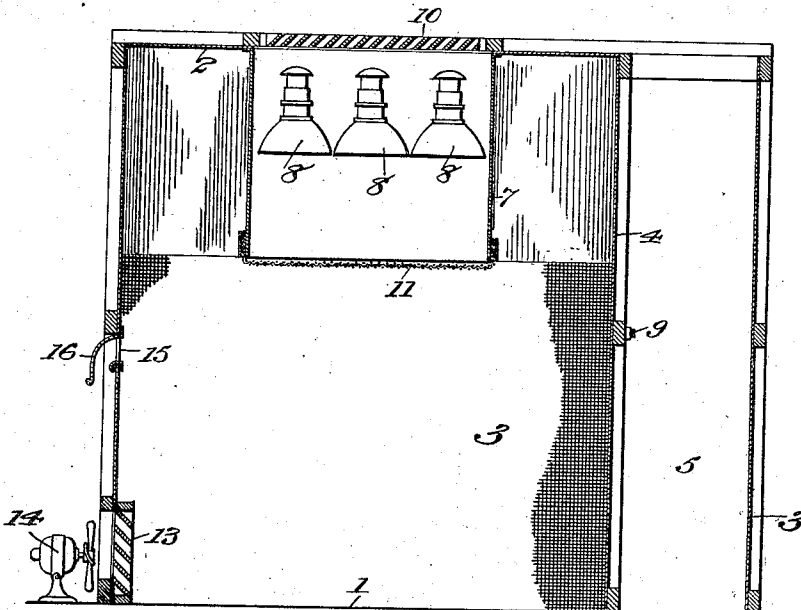


Fig. 2.



Inventor:-
 George S. Radford
 by attorneys
 Morris L. Leland

UNITED STATES PATENT OFFICE.

GEORGE S. RADFORD, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO
CENTRAL UNION TRUST COMPANY OF NEW YORK, OF NEW YORK, N. Y., A COR-
PORATION OF NEW YORK, TRUSTEE.

COLOR-MATCHING ROOM.

1,423,882.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE S. RADFORD, a citizen of the United States, and resident of the borough of Manhattan, city and State of New York, have invented a new and useful Improvement in Color-Matching Rooms, of which the following is a specification.

The object of my invention is to provide a color matching room in which a standard artificial daylight is provided, preferably of sufficient intensity to simulate or better a predetermined ideal north sky daylight, said artificial daylight being positioned to properly illuminate the material to be examined and being properly shielded from the eyes of the user, said room being kept sufficiently cool to be comfortable.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Fig. 1 represents partly in top plan and partly in horizontal section, my improved color matching room.

Fig. 2 represents a section taken in the plane of the line II—II of Fig. 1, looking in the direction of the arrows.

The floor of the room is denoted by 1, the ceiling by 2 and the side walls by 3. One of the side walls is broken away at one corner of the room and a vertical partition 4 leading from the floor to the ceiling extends inwardly from said broken-away side wall a sufficient distance short of the opposite side wall to provide a passage-way 5, terminating in an entrance opening 6 into the matching chamber. Depending from the ceiling about centrally thereof, I provide a tubular light shield 7 which is herein shown as cylindrical in form, having its top and bottom ends open. Within this tubular light shield 7 I provide a source of artificial daylight, preferably "artificial north skylight" as distinguished from "artificial noon sunlight." In the accompanying drawings I have shown a group of six powerful lamps 8, the lighting of which is controlled by the switches 9 through the usual lighting circuits, not shown herein.

The light shield 7 extends downwardly from the ceiling a sufficient distance to protect the eyes of the user. This preferably is to a point located somewhat below the eye level.

The open top of the light shield is preferably provided with a louvre 10 and the bottom of the light shield may be provided with a screen 11 for diffusing the light to reduce glare and resulting eye strain.

Openings in the ceiling of the room are preferably provided with louvres 12 for excluding exterior light from the room and yet permitting the ventilation thereof. An opening in one of the side walls near the bottom of the room may be provided with a louvre 13 in front of which may be located any desired means for producing a forced ventilation of the room, such for instance as an electric fan 14 of well known or approved construction.

One of the side walls of the room is also provided with an opening 15, provided with a light shield 16 through which opening a strip of material may be passed into position beneath the bottom of the light shield 7 without the necessity of bringing the entire roll of material into the room.

The bottom of the room and the side walls for a predetermined distance upwardly therefrom are preferably a flat-black, this flat-black on the side walls preferably extending from the floor to a point about in the same place as the bottom of the tubular light shield 7. The ceiling, the exterior of the light shield and the remaining portions of the side walls are preferably a neutral gray.

A color matching room constructed and arranged substantially as hereinabove described provides for an ample artificial daylight without danger of eye strain to the user, the room at the same time being amply ventilated without disturbing its usefulness. At the same time the room is very convenient of access and egress.

It is evident that various changes may be resorted to in the construction, form and arrangement of the several parts without departing from the spirit and scope of my invention; hence, I do not wish to limit myself to the particular embodiment herein shown and described, but

What I claim is:—

1. A color matching room comprising a matching chamber having an entrance for the user, a source of artificial daylight in said chamber, and a tubular light shield

surrounding the artificial daylight source and of sufficient length to protect the eyes of the user.

2. A color matching room comprising a matching chamber having an entrance for the user, a source of artificial daylight in said chamber and a tubular light shield surrounding the artificial daylight source and of sufficient length to protect the eyes of the user, said room having means for providing for the ventilation thereof.

3. A color matching room comprising a matching chamber having an entrance for the user, a source of artificial daylight in said chamber, a tubular light shield surrounding the artificial daylight source and of sufficient length to protect the eyes of the user, and a light diffusing screen carried by the light shield.

4. A color matching room having a source of artificial daylight therein, and a tubular light shield surrounding the artificial daylight source and of sufficient length to protect the eyes of the user, the bottom of said room and the side walls for a predetermined distance upwardly therefrom being flat-black.

5. A color matching room having a source of artificial daylight therein, and a tubular light shield surrounding the artificial daylight source and of sufficient length to protect the eyes of the user, the bottom of said room and the side walls for a predetermined distance upwardly therefrom being flat-black, and the ceiling, exterior of the light shield and remaining portions of the side walls being neutral-gray.

6. A color matching room comprising a matching chamber having an entrance for the user, a source of artificial daylight in said chamber, a vertically disposed tubular light shield surrounding the artificial daylight source and of sufficient length to protect the eyes of the user, said room having a shielded opening through its side walls for the passage therethrough of the strip of material to be examined.

7. A color matching room comprising a matching chamber having an entrance for the user, a source of artificial daylight in said chamber, a vertically disposed tubular light shield surrounding the artificial daylight source and of sufficient length to protect the eyes of the user, said room having a shielded opening through its side walls for the passage therethrough of the strip of material to be examined, and a light diffusing screen carried by the light shield.

8. A color matching room having a source of artificial daylight therein, and a vertically disposed tubular light shield surrounding the artificial daylight source and projecting downwardly a sufficient distance below the normal eye level of the user to protect the said eyes, the bottom of the room

being flat-black, and also the side walls thereof extending upwardly to a point substantially in the same plane as the bottom of the light shield.

9. A color matching room having a source of artificial daylight therein, and a vertically disposed tubular light shield surrounding the artificial daylight source and projecting downwardly a sufficient distance below the normal eye level of the user to protect the said eyes, the bottom of the room being flat-black, and also the side walls thereof extending upwardly to a point substantially in the same plane as the bottom of the light shield, and the ceiling, exterior of the light shield and remaining wall surfaces being neutral-gray.

10. A color matching room having a source of artificial daylight therein, and a vertically disposed tubular light shield surrounding the artificial daylight source and projecting downwardly a sufficient distance below the normal eye level of the user to protect the said eyes, the bottom of the room being flat-black, and also the side walls thereof extending upwardly to a point substantially in the same plane as the bottom of the light shield, and the ceiling, exterior of the light shield and remaining wall surfaces being neutral-gray, the said room also having means for providing for the ventilation thereof.

11. A color matching room having a source of artificial daylight therein, and a vertically disposed tubular light shield surrounding the artificial daylight source and projecting downwardly a sufficient distance below the normal eye level of the user to protect the said eyes, the bottom of the room being flat-black, and also the side walls thereof extending upwardly to a point substantially in the same plane as the bottom of the light shield, the ceiling, exterior of the light shield and remaining wall surfaces being neutral-gray, said room also having means for providing for the forced ventilation thereof.

12. A color matching room having a source of artificial daylight therein, and a vertically disposed tubular light shield surrounding the artificial daylight source and projecting downwardly a sufficient distance below the normal eye level of the user to protect the said eyes, the bottom of the room being flat-black, and also the side walls thereof extending upwardly to a point substantially in the same plane as the bottom of the light shield, the ceiling, exterior of the light shield and remaining wall surfaces being neutral-gray, the tubular light shield being provided with a light diffusing screen.

In testimony that I claim the foregoing as my invention, I have signed my name this 19th day of November 1921.

GEORGE S. RADFORD,