

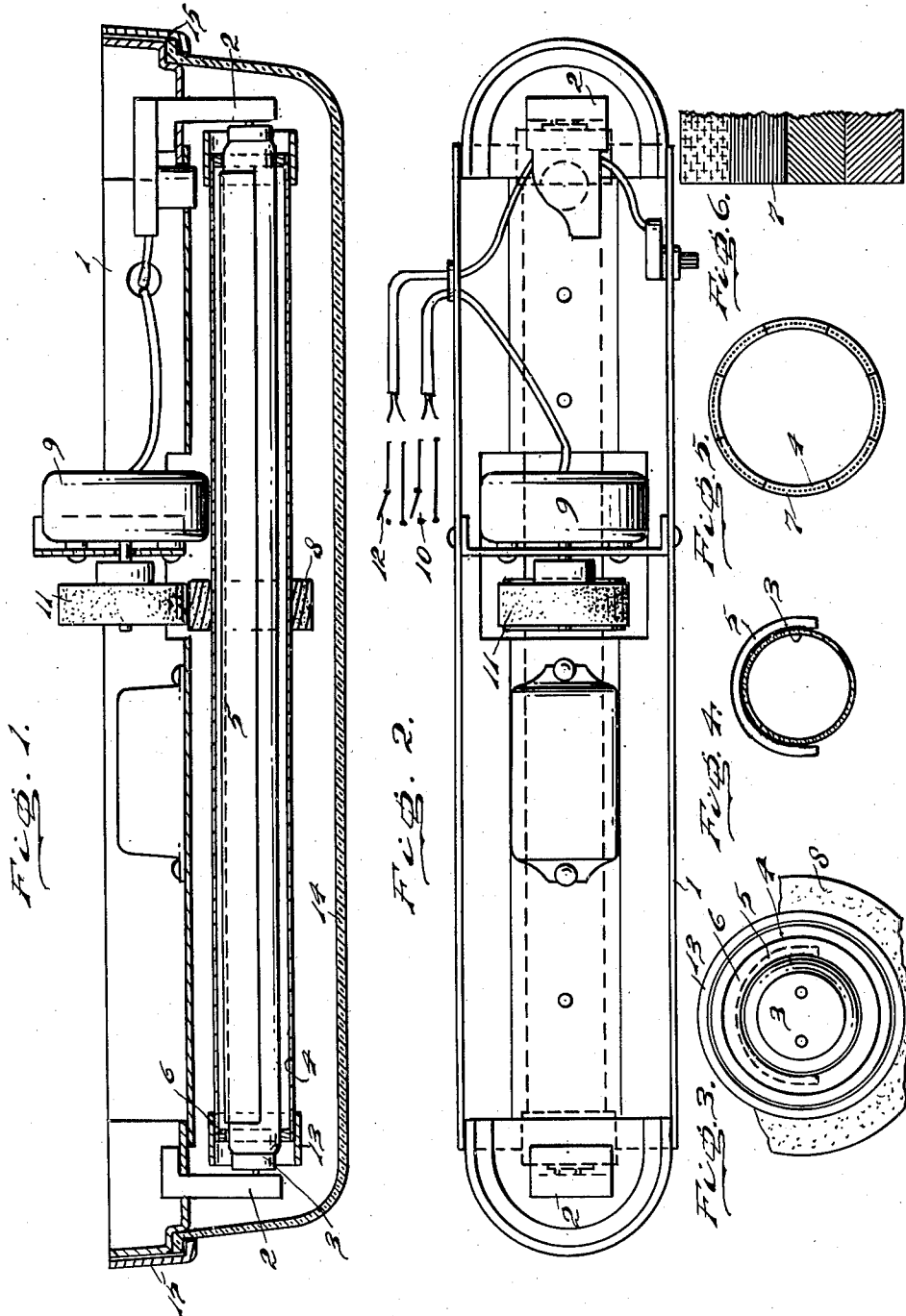
April 24, 1945.

L. R. PAUL

2,374,640

COLOR CONTROL

Filed Sept. 16, 1943



BY

INVENTOR.

Leslie R. Paul

Herbert S. Fairbanks
ATTORNEY.

UNITED STATES PATENT OFFICE

2,374,640

COLOR CONTROL

Leslie R. Paul, Philadelphia, Pa.

Application September 16, 1943, Serial No. 502,703

3 Claims. (Cl. 240—10.1)

The object of this invention is to devise a novel selective color control for use in lighting fixtures in order to provide a desired color for the area illuminated by the lighting fixture.

An electric motor, having its circuit controlled independently from that of the lighting circuit, is employed to position a color tube for a selected color or tint, and revolves the color tube around a stationary lighting tube. A metal, opaque shield and reflector extends around the rear portion and a portion of the sides of the lighting tube, so that only the unshielded part of the color tube acts as a lighting agent. This enables the user to select the exact color effect desired by actuating a remote, switch control for the motor. The shield prevents the light rays from emanating through the other colored sections of the color tube and neutralizing and counteracting the trueness of tint. The ends of the lighting tube extend beyond those of the color tube, and slides on the color tube block the light rays at the extreme ends of the lighting tube where it is not covered by the color tube. A fluorescent tube is pushed and snapped into its sockets, and to prevent the breaking of the color tube when the lighting tube is changed, the motor drives the color tube by means of a resilient wheel.

With the foregoing and other objects in view as will hereinafter clearly appear, my invention comprehends a novel, selective color control.

It further comprehends a novel color control having novel shielding means, novel driving means for the color tube, and novel means for mounting the color tube to turn around the lighting tube.

Other novel features of construction and advantage will hereinafter appear in the detailed description and the appended claims.

For the purpose of illustrating the invention, I have shown in the accompanying drawing a preferred embodiment of the invention which I have found, in practice, to give satisfactory and reliable results. It is, however, to be understood that this embodiment is typical only and that the various instrumentalities of which the invention consists can be variously arranged and organized and the invention is not limited to the exact arrangement and organization of these instrumentalities as herein set forth.

Figure 1 is a vertical section through a selective, color control, embodying my invention.

Figure 2 is a bottom plan view.

Figure 3 is an end elevation of a portion of the device.

Figure 4 is a section through the lighting tube, with the shield or reflector in end elevation.

Figure 5 is a transverse section of the color tube.

Figure 6 is an expanded view of a portion of the color tube to show the arrangement of different colors.

Similar numerals indicate corresponding parts. Referring to the drawing:

1 designates the frame or housing of a selective, color control, embodying my invention. The frame has conventional sockets 2 to receive a conventional fluorescent tube 3. 4 is the color tube, the rear portion and a portion of the sides of which are shielded by a metal, opaque, shield or reflector 5, which snaps on to the tube 3.

The color tube has bearings 6 which are pressed into its ends and bear on the tube 3 to freely revolve thereon. The color tube 4 has different colors or tints painted, lacquered or otherwise secured thereon, preferably in bands lengthwise of the color tube. The arrangement and the different colors used may vary widely in practice, but I have found if they are arranged in the following order good results are obtained, clear or uncolored, yellow, amber, rose, red, magenta if desired, blue, green, yellow. Different colors are shown at 7.

The color tube has resilient band 8 fixed to its outer periphery in any desired manner at a desired location lengthwise of the tube. An electric motor 9 is mounted on the frame, and has remote control switch 10, located at any desired place in the room where the fixture is installed. The motor is a low speed motor, preferably about one R. P. M. so that the color tube will turn very slowly and can be stopped at the desired color without over-running. The shaft of the motor has a resilient wheel 11 in driving engagement with the resilient band 8.

The fluorescent tube has a remote control switch 12, located at any desired place in the room.

In order to provide for the removal of the fluorescent tube without danger of injury to such tube or the color tube, the color tube does not extend the full length of the lighting tube. Light blocking shields 13 are slidably mounted on the color tube so that they can be moved outwardly to block the light from the extreme ends of the lighting tube, and, when the lighting tube is to be changed, these shields can be moved inwardly to provide space for the user to grasp the lighting tube with his fingers to remove it or to insert it in place in its sockets.

A transparent or translucent cover 14 is secured in place by members 15 secured in any desired manner to the frame and overhanging flanges on the cover.

The fluorescent tube has its conventional cooperating parts which are well known in the art, and a detailed description of such parts is not believed to be necessary.

In the operation, the user actuates the switch 10, and as soon as the desired color shows, the switch is opened to stop the color tube and produce the selected color effect.

A section of the tube 4 may be left uncolored.

It will be apparent that a plurality of devices may have their motors controlled by a single switch, if desired.

For manual positioning and turning of the resilient wheel 11, the wheel may be mounted on the frame and its shaft extended to a point accessible to the operator.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a selective, color control, a fluorescent tube and its circuit, a color tube shorter than and surrounding said fluorescent tube to leave opposite end portions exposed, a stationary reflector within the color tube, shields slidable on the color tube to normally cover the exposed end portions of the fluorescent tube and slidable towards the center of the color tube to expose the ends of the fluorescent tube, and a slow speed drive having resilient engagement with the color tube and to revolve it and stop it for a selected

color effect and said circuit and drive having separate remote controls in proximity to each other.

2. In a selective, color control, a lighting tube having a portion of its sides and its rear shielded, a color tube of less length than the lighting tube, surrounding and mounted to revolve on the lighting tube, a slow speed motor operatively connected with the color tube to revolve it, annular shields on the color tube to normally overhang the unshielded portions of the lighting tube, and slidable inwardly to provide space for grasping the lighting tube when it is to be inserted or removed, and a light transmitting cover for said tubes, said lighting tube having a remote control switch, and said motor having a remote control switch to cause the motor to position the color tube for a selected color effect.

3. In a selective, color control, a housing having sockets, a fluorescent tube removably mounted in said sockets, a color tube of less length than the fluorescent tube and having end bearings on it, a reflector partially surrounding the fluorescent tube, annular shields slidable on the color tube, normally covering the exposed ends of the fluorescent tube and slidable towards the central portion of the color tube to expose the ends of the fluorescent tube to permit it to be grasped for removal from its sockets as a unit of structure with the reflector and color tube, and means to turn the color tube to position it for a selected color effect.

LESLIE R. PAUL.