

their aid tell what color he observes, by the degree in which the glass affects the brightness of that which he sees.

In the same way one who is color-blind to yellow and blue can be helped to distinguish these colors, by means of either yellow or blue glasses, although otherwise undistinguishable. Through the yellow glass, yellow objects will appear brighter than with the naked eye alone; and conversely, the use of a blue glass will brighten to him all really blue objects and dull the brightness of all that are yellow.

As regards those who are color-blind to all colors, they are to be helped by a set of three different glasses—red, green and violet. If one who is color-blind to red and green wishes to be able to distinguish between the various shades either of red or of green, the proper course is for him to supply himself with a set of three or more glasses, mounted in the manner of the lenses in a pocket microscope. If in looking through these at a red or a green object he notices no difference in brightness, no matter through which of the glasses he observes it, then he must look again through two of the glasses at once—side by side—until he does observe a difference.

In case a totally color-blind man wishes to distinguish slightly differing shades of color, he must make combinations of red and green, yellow and orange glasses, and with these combinations he can distinguish twelve different shades. In this case it will be best to have the glasses set in pairs, each of the above-named combinations in a frame by itself. Of course these helps are of no use for railway men, or those whose duty it is to observe the colors of signals at sea; as in their case the use of such appliances is not admissible. In conclusion it may be remarked that there is a special kind of color-blindness caused by a disease of the retina, and which results in the inability to distinguish blue at all, and one of the optic nerve, which results in total inability to see red.—*Scientific American*.