

will give me some information as to the size of the walls, the height of the room, and the colour of the walls, I will endeavour to answer his question fully.

Generally speaking, for the home, or in fact in almost any place of that description, indirect lighting is suitable, although it requires about 60 per cent. more wattage than the direct system.

Mr. McRae,—

The building I had reference to was an office building, with nearly white walls, 12, 14 or 16 feet high and large offices.

Mr. Helps,—

Under these conditions, I think indirect lighting would possibly be better than direct lighting. It gives illumination without glare; that is one of its great features. I did not give it more than a passing reference in the course of the paper, because it is not very suitable for factory or general industrial lighting, in which most of the gentlemen present are interested.

Mr. W. S. Butler,—

I am sure Mr. Helps has gone into the subject of scientific illumination quite thoroughly. There is one thing in connection with indirect lighting which is sometimes overlooked. Very often in a room with a low ceiling there is too much light thrown on the ceiling and when you look at the ceiling the iris closes up and makes the pupil of the eye small, and when you look down at the parts of the room which are not so brightly illuminated the iris of course expands; it makes the pupil of the eye larger which throws a constant strain on the eye. This is one of the things you have certainly got to guard against. When you are using indirect lighting, it is very necessary to consider the conditions which you are working under. One of the best systems is the semi-indirect system of passing lighting through a glass bowl and splitting it up in all directions, and at the same time throwing a portion of the light on the ceiling. This gives a very desirable light and effect.

I think that the great trouble with most lighting systems are that they are designed by people who know little or nothing about the Science of Illumination.

I have in mind an incident which I should like to relate, as it bears on this subject.

Some time ago one of the churches in this city had a new lighting system installed which was supposed to be perfect; it was very good with the exception of the lights under the gallery. They used the Holophane shade throughout the entire