

up the rays and scattering them equally in all directions. This is particularly useful where ceilings are low and the lamp otherwise would come within the line of vision.

The main point to consider with diffusing glassware is the efficiency. Some forms absorb as much as 60% of the light, leaving only 40% for use, whilst others absorb only about 14%.

To go into the various uses of the many principal types of reflectors would be to go far beyond the intended scope of this article. Before closing, however, we would emphasize these points as of the first importance:

- (a) The entire abolition of naked gas flames where gas must be used;
- (b) The careful shading of *all* bright lights;
- (c) The avoidance of *too much* brilliancy or "glare";
- (d) The general use of Tungsten lamps;
- (e) Care in selecting the right size of lamp to get proper distribution with economy;
- (f) The proper spacing and height of lamps;
- (g) The use of *carefully selected* reflectors.

Volumes have been written, and many more could be written, on this interesting subject—a subject which becomes increasingly interesting to those who take the pains to study it. The most that the writer hopes to achieve in the present instance is to direct attention to its importance and value, particularly in connection with industrial concerns. It is hoped, however, that some of the suggestions herein briefly suggested will prove of some use to those who have exercised such patience as to follow it through, and that to some extent it will help to promote "good lighting."

Chairman,—

Gentlemen,—We have heard Mr. Helps' very exhaustive and carefully prepared paper, and I only regret that we did not get the proper current so that the views could have been better shown on the screen.

I feel sure Mr. Helps has gone into this matter thoroughly to find the easiest colour to the eye for illumination purposes, etc., and will only be too pleased to answer any questions which you may have to ask him.

Mr. McRae,—

Mr. Chairman, one thing I would like to ask the speaker is this: what form of light does he consider the best, direct, indirect or semi-indirect.

Mr. Helps,—

Mr. Chairman, if the gentleman who asked that question