

owner, evidently, of those priceless possessions, a youthful retina, a powerful accommodation, a strong constitution and healthy eyes, and might not have thanked me. When he has looked naked lights "in the eye" for a few more years, he may find that even these advantages do not always insure against weak eyes. Figure 3 shows a not uncommon form of light well adapted to illuminate the case or desk below it, but particularly damaging to the worker's eyes. Not only the direct rays from the lamp but the indirect rays from the reflector are thrown upon the case, but they are

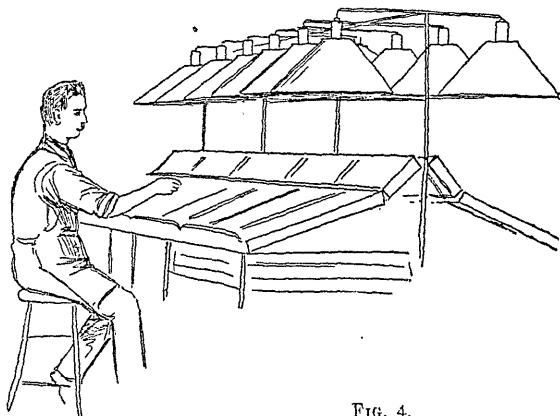


FIG. 4.

with equal certainty, always assuming he does not wear a shade, thrown into the compositor's eyes.

It sometimes happens that the same light may be injurious to one man and innocuous to another. This is often a question of stature, posture or height of stool or chair, and so on. Well marked examples of this may be seen in an office in this city. A medium sized clerk does not complain of his vision as long as he does his work on a high stool (Fig. 4), where, incidentally, he is out of reach of the bright electric lamps in front of him, but when he stands up and continues his work, the lights shine into his face and soon compel him to put on his cardboard shade.

In the next and concluding paper it is proposed to suggest some remedies for the foregoing state of things, and among other matters will be discussed that of eye-shades. Just here, however, it may be pointed out that these are only partially remediable agents in the presence of badly placed lights. It is a fundamental law of optics that *the angle of reflection is equal to the angle of incidence*. That is to say, for example, if a ray from the light A fall upon a plane surface, E B F, at B, it would make with a perpen-