rays is so systematized by this plan that the whole volume of light received through the sky-light is economised to the utmost by the reflectors, which may be of looking-glass, or any polished material suited to the purpose. These should be so arranged with lines as to be easily drawn within reach and kept constantly bright.

Sir David Brewster gave but a suggestion to architects, and threw out the idea of using *prisms* for the purposes of reflection. No doubt prisms would be much more effective than planes, but it is not always that the former can be available, while the latter, in the character of looking-glass, or burnished surface of any description, is always within easy reach.

Although we give looking-glass as a medium of reflection we do not consider it to be a perfect agent for this purpose. There are many reasons in fact for objecting to its use, besides that of its being so easily broken, not the least of which is the following:

Looking-glass is made by coating the back with metallic foil, which by smooth adhesion gives an opaque surface, impenetrable by rays of light. It is this back surface that returns what is termed the reflection, and not the upper or outer surface of the glass; so that it is evident the thinner the glass, or medium through which the rays of light prove to pass, the better. The thicker the glass the more reduced in power the reflection on the metallic backing becomes.

The rough surface produced on glass, which is so common in London for reflection of light in stores and offices, that would be dark without some such application, is worthy the attention of our architects on this side of the Atlantic, and we have wondered that it has not been introduced long before this time.

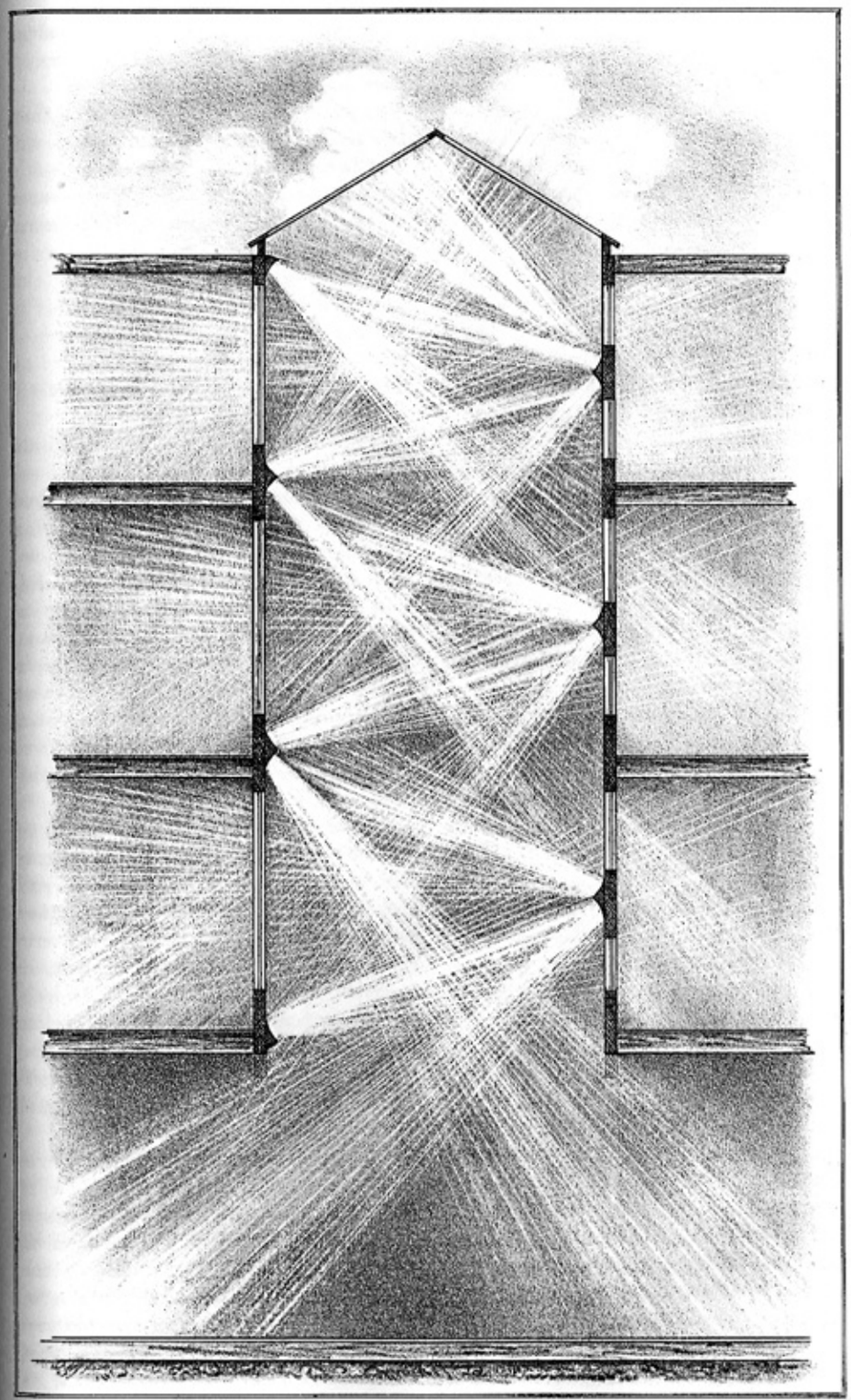
The article we allude to is similar in surface to punched stone, the indents or concaves serving the invaluable purpose of collecting a quantity of light which a flat surface could not accommodate, and sending forth a magnified supply of rays, gaining in brightness by their accumulated volumes.

It will be seen by the illustration that, besides the reflected light, there will also be a perpendicular volume, as would be the case in the event of the absence of the reflective mediums here shown. And to aid and assist still further the transmission and distribution of light, we would have (as we have suggested in another place,) the wood-work coated with porcelain paint, which affording a bright reflection in itself would greatly increase the desired effect.

While treating this subject we would take occasion to say that in all such occasions where sky-lights are rendered necessary for stories of offices, having no other windows than those which take light from the well-hole of the sky-light, that it would be highly judicious to introduce a construction such as is common in London of movable *glass louvre* panes. When the glass slats of these are properly bevelled we know, from personal inspection, what their power of transmission and consequent usefulness is.

In conclusion, it is only necessary to remind our constructors of sky-lights that the laws which govern *light* and *sound*, are almost identical, and that what we call "echo," in the one, we term "reflection" in the other; although, in point of fact the one applies correctly to the other; echo being in reality reflection. The same form, therefore, which produces or prolongs echo, will in like manner propagate and extend light.

The bright opaque surface which resists the penetration of light will of necessity reflect the rays thrown upon it; and the smooth body impervious to sound, will cause its rejection in the form of echo, and the next obstacle of similar property which the rejected ray is thrown against will, in its turn, cast it off again; and so on while any of its power lasts.



SKYLIGHT AND REFLECTION.