

GLARE A THING OF THE PAST?

Polaroid may become post-war commonplace

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AT HARVARD University, U.S.A., in 1929, there was a shock-hair piercing - eyed twenty - year - old student named Edwin Land. He was always remaining late after class for discussions with his physics instructor. Their discussions centred around a light polarizer that Land had conceived as a boy in a rough home laboratory. The instructor influenced the University authorities to set Land up in a special laboratory.

Land didn't take the trouble to graduate from the University. With Land's polarizer as a basis, the two men set out to manufacture a cellophane-like substance which they called polaroid. There are clear signs that, after the war, polaroid is going to play a considerable part in our daily lives.

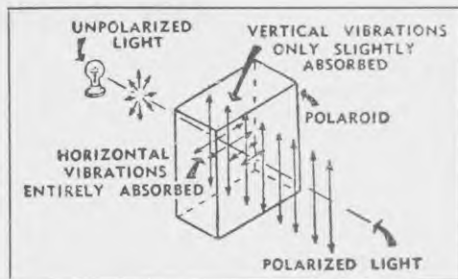
Polaroid eliminates glare and thus intensifies colour. This has brought about the greatest advance in the improvement of human sight since the invention of spectacles. To-day it is used not only in those sun-glasses which are so hard to obtain, but also in microscopes, telescopes, and other optical instruments, in reading-lamps, in X-rays, in cameras, as windows in motor headlights, and in three-dimensional movies.

This substance is manufactured in sheets three-thousandths of an inch in thickness. It is both flexible and transparent. Composed of needle-like crystals (several thousand billions to the square inch), its peculiar quality is due to the fact that all the crystals lie parallel. Polaroid polarizes light waves—that is, it gives them a definite direction as they sieve through it.

Normal light hits the eye from every direction. In passing through the polaroid crystals the light ray is broken up. The effect the parallel crystals of polaroid have on light which passes through them may be more clearly understood by picturing a ray of light as a round metal

bar and the polaroid sheet as a slot that flattens the bar into a ribbon when the bar is drawn through.

The effect of the process is amazing to the layman. Looking through a sheet of polaroid you see a new world. The every-day milk-bottle through polaroid will be ringed with rainbow-coloured stripes where the glass has been improperly annealed. A few caffeine crystals through a polaroided microscope will look like a hothouse flower garden. Polaroid reveals defects in silk stockings or sausage-skins. It enables jewellers to tell the good stone from the artificial—at a glance. Your skin takes on new colour and texture—it makes the softest skin resemble a rugged part of the Owen Stanleys.



After the war no deep-sea fisherman will be complete without a pair of polaroid spectacles. They eliminate blinding glare from the surface and allow the eye to see deeply into water. Cameras equipped with polaroid can photograph a submerged submarine. It enables airmen to see the enemy plane hiding in the sun.

One of the most widespread future uses for polaroid will be in diminishing the glare of motor-car headlights. In proportion to mileage, the death-rate in night driving is almost three times that of daylight driving. The majority of these accidents are due to bad head-