

Green Ray Seen From Ship

Physics

Intending voyagers to Europe during the next few months should carefully watch the setting sun, and they may be able to see the "green ray." This is the brilliant green coloration that the sun assumes just before its last narrow sliver disappears behind the horizon. A really satisfactory sight of it is rather rare, said Prof. R. W. Wood, professor of experimental physics at Johns Hopkins University. On thirty crossings of the Atlantic he has looked for it every time there was a clear sky, and no haze or clouds near the horizon at sunset, but has only seen it three or four times. Only once, he said, was it really striking. At that time it appeared a brilliant emerald green, about the color of a railroad signal.

Fish Models Now Made

Ichthyology

Museum specimens of fish can be prepared in such a way as to be as bright and interesting and attractive as the mounted animals or birds, instead of the bleached and disappointing things they usually are in their jars of alcohol, according to the claims of M. Schelenz, a preparator at the Karlsruhe Museum, writing in the German scientific journal *Naturforscher*.

In Herr Schelenz's method, one side of a freshly killed fish is carefully cleaned of its coat of mucus, or slime. The specimen is then imbedded in modeling clay, leaving the cleaned side projecting. Then melted paraffin is poured over it forming a solid block and impregnating the fish with the wax.

The paraffined fish is next removed, leaving an exact mould of itself in the clay. Into this mould fine plaster-of-paris is poured and is allowed to harden. Then the clay is dissolved away, and the plaster cast of the fish remains, with every detail of skin and scale and fin exactly as it was in nature.

The last task is one for the artist. He takes the white plaster model, "ages" it for some weeks, and then coats it successively with shellac and with silver or gold leaf. Finally he paints in the life colors and markings of the fish by hand, and gives the model a protecting coat of varnish.

Science News-Letter, May 12, 1928

The cause of the green ray is generally supposed to be that the rays of light are bent as if by a prism when they pass through the atmosphere of the earth. This enables us to see the sun for a short time after it is below the line of the horizon. As the red and orange rays are bent least, they disappear first behind the horizon. This leaves the green, blue, and violet rays still visible. Blue and violet affect the eye much less strongly than green, and so the green color predominates.

Dr. Wood accepts this theory of the origin of the ray, but proposes a new theory to explain why it is not always seen at sunset. At the time that he saw the ray so well, the air and ocean were at approximately the

same temperature. Through the rest of the voyage, when it was not seen, the ocean was much warmer than the air. He thinks that when the water is warm and the air cool, the layer of warm air right in contact with the sea would cause the light rays of all colors to be bent less, and so the sun would set abnormally early. When the air is warmer than the water, the curvature of all the rays would be increased, and so the atmospheric dispersion that causes the ray would have a longer time to act.

Anyone seeing the ray from the ocean is requested to send an account of his observation, and the ocean and air temperature at the time, to Prof. Wood in Baltimore.

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