

MEDICINE

Detached Retina Blindness Curable in Half of Cases

Loosened Sight-Tissue "Spot-Welded" Back Into Place With Electric Needles Probing Through the Eyeball

BLINDNESS caused by loosening of the retina, the actual seeing part of the eye, can be cured or at least benefited by operation in nearly 50 per cent. of all cases. So Drs. J. H. Dunnington and J. P. Macnie of New York City reported before the meeting of the American Academy of Ophthalmology and Otolaryngology. The New York surgeons described their results in operations on a series of 150 patients.

The retina, the light-sensitive lining of the eye, is an exceedingly thin, delicate film of living tissue. It may be compared to the photographic film or plate in a camera. It rests on a tissue called the choroid, which contains many blood vessels. From this the retina gets its blood supply.

Sometimes the retina becomes detached from the choroid, peeling off as wallpaper does from a wall. When this happens, the retina fails to get enough nourishment and cannot function properly. The patient feels as if a curtain were falling over part of his eyes and he has increased difficulty in seeing. The retina may not become wholly detached, but if not treated it will as a rule eventually all peel off.

Common Among Boxers

The exact cause of detached retina is not known. It may result from an injury; among boxers it is a common accident. Drs. Dunnington and Macnie reported that nearly a third of their patients were suffering from the condition following injuries.

The most common contributing cause was nearsightedness, which was present in two-thirds of the patients.

Modern treatment of detached retina is based on a method first proposed by a Swiss surgeon, Dr. Gonin. It is analogous to spot welding, the idea being to seal the retina back onto the choroid by cauterization, which produces an adhesive inflammation between them.

One modern method of doing this is by driving many tiny platinum-iridium needles into the choroid. These needles carry an electric current of from 30 to

50 milliamperes, which does the cauterizing. In early cases this method gives as high as 70 to 80 per cent. of cures.

If the retina has been detached from the choroid too long, however, it loses its power to function, and the patient cannot see even after the retina has been re-attached. Consequently the greatest percentage of cures are among early cases.

The operation for treating detached retina is now being performed in all the major clinics in this country.

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ARCHAEOLOGY

Mayan Heirlooms Sacrificed For Rain

ABOUT thirty years ago a dredge was lowered into the Mayan Well of Sacrifice at Chichen Itza, Yucatan, and a quantity of extraordinary objects of gold, jade, and other substances was brought up. The articles, many of them beautiful, showed the sort of things that Mayan Indians brought from their homes and temples to offer to the rain god, long ago. It was their way of warding off, or battling, drought. They were invoking the god to send rain to the growing corn. Bones of young girls, who had been hurled into the well to become brides of the god, also came up in the maw of the dredge.

Since then the mystery of the Sacred Well, suddenly lightened by these discoveries, has clouded again. That is to say, the objects salvaged from its depths became involved in a new atmosphere of mystery. Some, at least, found their way to the United States to a scientific collection. But scientists are still waiting to see the first official report describing the sacrificial contents of the well.

Now and again, flashes of information appear, suggesting the remarkable points of interest which this collection contains.

That the sacrifices poured into the Sacred Well were foreign objects, brought hundreds of miles to northern

Yucatan, is told by Prof. Alfred M. Tozzer of Harvard University in the new scientific publication, *Maya Research*.

There was foreign trade on both sea and land in the Mayan country, Prof. Tozzer states. On his fourth voyage, Columbus met a trading canoe eight feet wide. Citing the contents of the Well of Sacrifice as evidence of long distance trade in early America, Prof. Tozzer says the greatest number of the articles were "more Mexican in feeling" than Mayan.

Ideas of time as well as of space are suggested by the objects. Some of the carvings of jade are like relics from the old Mayan Empire of southern Yucatan.

"Not only did they have to travel hundreds of miles to reach Yucatan," it is explained, "but they were hundreds of years old at the time they were offered as sacrifices. From generation to generation these jades undoubtedly were handed down as heirlooms."

It is easier in a year of drought, like this, to understand the intense feeling of the Mayan Indians when they offered to the god of rain the loveliest of the maidens and the family heirlooms as well.

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CHEMISTRY

Next-to-Heaviest Element, Protactinium, Is Isolated

ISOLATION of the heavy element protactinium* has been achieved, Dr. Aristid Von Grosse, Assistant Professor of Chemistry, University of Chicago, told the American Chemical Society.

Protactinium is the first chemical element to be isolated in the United States, although several elements have been claimed to be discovered here, Dr. Von Grosse declared.

The newly isolated protactinium is next to the heaviest element known, which is uranium with atomic number 92. Protactinium is number 91 and its atoms weigh 231 times as much as those of ordinary hydrogen. It is radioactive and continually breaks down like uranium and radium.

Protactinium's half period, or the length of time in which it disintegrates to half the original amount, is 32,000 years. Radium is much shorter lived, having a half period of 1,600 years, declared Dr. Von Grosse.

*The name of element 91 is variously spelled protactinium or protoactinium (British), and occasionally proactinium.