

PSYCHOLOGY

Color Blind Found To Have One Advantage

DO NOT FEEL too sorry for the color blind, for their defect has been found to give them one advantage over persons with normal color vision. The color blind have more than average ability to distinguish between different shades of light and dark. On this account, a color-defective engraver is said to be especially prized by a Philadelphia publishing house.

Color blindness, which afflicts between three and four per cent. of males, was found quite handicapping to a group of young medical students who were examined by Drs. Leandro M. Tocantins and Harold W. Jones at Jefferson Medical College, Philadelphia.

Some of the young doctors could not recognize the rash on scarlet fever patients. They all had trouble in distinguishing between differently-colored bacteria under the microscope. However, their better-than-average ability to distinguish between different shades of light and dark should make them particularly well suited to X-ray work.

Science News Letter, April 1, 1933

PALEONTOLOGY

Prehistoric Man Saw Himalayas Grow Higher

CAVE MEN lived in the Himalayas during the Ice Age, and saw the mountains grow loftier around them. They held their own heroically against "one of the worst climatic catastrophes of the earth's history."

Thus states Dr. Hellmut de Terra, of Yale University, who has just returned from a twenty-month's expedition to the "roof of the world," bringing back evidences of human life in the Pleistocene Himalayas, hitherto unsuspected, and also of the existence in those mountains of the mammoth.

Proof that the mountains had continued rising during human and mammoth occupation during ice age times consists in stone implements and fossils of the mammoth in earth layers that had been thrown into folds subsequent to the deposition of these relics.

"I found in the Kashmir Valley the first traces of prehistoric man: some knives, scrapers and other implements," Dr. de Terra reported. "Close to this prehistoric site I discovered the remains of a mammoth, the ancestral elephant

of the Ice Age period, whose former existence in this most elevated highland of India was hitherto completely unknown. Both finds were made in the Pleistocene clay formation of the Kashmir Valley and date back into prehistory approximately forty to sixty thousand years.

"As in Europe, the prehistoric race took refuge from the advancing ice by settling in areas which climatically permitted human existence. Such natural shelter for man during the great Ice Age was in the case of the Himalayas provided by a few broad valleys which temporarily escaped glaciation. Owing to the fact that these valleys were mainly occupied by fresh water lakes, they not only provided shelter, but also food for prehistoric man, who struggled against one of the worst climatic catastrophes in the earth's history."

Science News Letter, April 1, 1933

CHEMISTRY

Antiquity Had Chemists As Well as Alchemists

NOT ALL the ancients who labored mysteriously with beakers and alembics were mere alchemists, either muddle-headed themselves or deliberately out to fool their neighbors. There were real chemists among them, who knew that the "gold" they were making out of base metals was not real.

So Prof. Tenney L. Davis of the Massachusetts Institute of Technology told members of the American Chemical Society. The chemists of ancient Alexandria knew the difference, he said, and so did the medieval genius Albertus Magnus, the earliest scientist to be canonized as a saint.

Albertus, said Prof. Davis, wrote in his *De Alchimia* that the gold of alchemy is identical with real gold "in every test and hammering"; but he also wrote in another part of the same book that "the gold of alchemy does not gladden the heart of man, nor cure leprosy, and wounds fester which are made by it." This, Prof. Davis believes, indicates that Albertus knew that "the gold of alchemy" was brass.

Apparently independently of the West, the Chinese invented a system of alchemy about the third century B.C. The Chinese alchemists hoped to produce actual immortality by chemical means, and to become "hsien" or supernaturally endowed, benevolent immortals.

Science News Letter, April 1, 1933

IN SCIEN

ASTRONOMY

New Star Flashes In Heavens

A NEW STAR is in the heavens. Astronomers at the Royal Belgian Observatory, Brussels, have announced to the astronomical world the discovery of a nova, or new star, located in the constellation of Gemini, the twins. This is a little west of directly overhead in the evening sky. The new star, which is probably a sudden brightening of a star that has heretofore been too faint to be seen with telescopes, is still feeble in light compared with the stars seen with the unaided eye these spring evenings. It is eleventh magnitude, visible only through large telescopes. The nova may signal to the earth the collision of two stars. If our sun had a similar experience, it would of course annihilate the earth.

Science News Letter, April 1, 1933

PHYSIOLOGY

Size of Thyroid Gland Varies With Age and Season

THE THYROID gland in your throat, important in the regulation of bodily functions, varies in size according to your age, and also fluctuates in size according to the season of the year.

These observations by Harry von Kolnitz and Dr. Roe E. Remington, of the South Carolina Food Research Commission, were reported before the American Chemical Society.

Messrs. von Kolnitz and Remington examined the thyroids of 150 human bodies in Charleston. They found that up to the age of forty, human thyroids increased in size; after that they declined steadily. Women's thyroids averaged larger than men's, but contained a lower percentage of iodine.

Thyroids varied seasonally, increasing in weight from April to a peak in July and then decreasing to a constant level from October on through the winter. This latter result disagrees with findings of earlier investigators.

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CE FIELDS

CHEMISTRY

New Leather Makes Shoes Self-Polishing

THE DEVELOPMENT of a new leather that needs no applications of dressing and only a little rubbing to keep it polished was announced by the Mellon Institute of Industrial Research.

It is expected to find application in the shoe and other leather industries and it is said to be the outstanding development in the field since Robert H. Foerderer developed vici leather in the 1880's. The research was conducted by C. H. Geister on behalf of Robert H. Foerderer, Inc., of Philadelphia, Pa.

The conventional vici method of treating leather is followed to a certain point, when the skin is impregnated with filling agents in a new manner. This supports and lubricates the fibers, tending to prevent their breaking down under wear and causing the leather to lose shape.

When shoes of the new leather are worn, the heat of the feet gradually and continuously works the impregnating materials to the surface. A slight brushing will then give a good polish.

The new leather can be made in all colors and it is claimed to be practically scuff-proof, soft and pliable yet shape-holding, durable and water-resistant.

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ZOOLOGY

America's Antelope Believed to Be Increasing

THE PRONGHORN, slender and beautiful antelope-like animal of the American West, is believed to be on the increase. Thought to be even nearer extinction than the American buffalo or bison was a generation ago, they are shown by a census conducted by the New York Zoological Society to be approximately 68,000 in number in the United States, with 2,400 additional in Canada. A similar census by the U. S. Biological Survey ten years ago indicated less than 27,000 in this country and 1,327 in Canada. Figures for the present Zoological Society census were

supplied by Federal, State and Dominion authorities.

Wyoming leads the list, with 25,000 animals, as estimated by that state's fish and game commission. An unofficial estimate disagrees with this; setting the number considerably lower. Other states show pronghorn populations ranging from as high as 9,000 in Oregon down to a mere baker's dozen in Nebraska.

The average citizen perhaps has the easiest chance to see pronghorn in Yellowstone National Park, on the buffalo range in the Lamar Valley. Confident in their remarkable running speed, they will race automobiles, being able to keep up a speed of 35 miles an hour for really considerable distances.

When white men first came to the Plains, pronghorn were even more numerous than the bison.

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CHEMISTRY

Fabrics in Fires Often Produce Poison Gases

WHEN A MAN falls victim to a fire, if he is not burned outright he is frequently said to be "suffocated by the smoke." But in many cases he is killed by something much more deadly than smoke. Many common household things give off some of the most toxic of poisonous gases, Prof. John C. Olsen of Brooklyn Polytechnic Institute told his fellow-chemists at the meeting of the American Chemical Society. Prof. Olsen has as collaborators in his investigations George E. Ferguson and Leopold Scheffan.

"The gases from all types of fires investigated contain toxic constituents in sufficient amount to make breathing the gases dangerous or even fatal in a relatively short period," said Prof. Olsen. "They vary greatly in toxicity. Those most toxic come from substances containing nitrogen or sulphur or both of these elements.

"Textiles such as clothing, draperies, etc., cotton and rayon produce the least toxic gases, while silk and especially woolens give off hydrogen sulphide, hydrocyanic acid, sulphur dioxide and ammonia, as well as carbon monoxide.

"Acid or ill-smelling constituents mixed with the gases from most combustible materials force those breathing the fumes to seek fresh air. This has been the means of saving the lives of a great many people."

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AVIATION

Wool Tufts Help Airplane Designers

TUFTS OF WOOL attached to the wings and other exterior surfaces of airplanes are being used to help designers in obtaining the best shapes for the various parts.

The method is described by Prof. B. Melvill Jones, the Francis Mond Professor of Aeronautical Engineering at Cambridge University, and Flight-lieutenant J. A. G. Haslam, in a report of the British Aeronautical Research Committee.

For ascertaining the direction and force of the air currents created during various maneuvers, a large number of tufts are dotted over the wings. The different ways in which they either stream out or blow about irregularly indicates the nature of the air flow.

The wool tufts also facilitate the detection of eddies, which are formed on the body, wings and tail, particularly at the junctions between them, when streamlining is imperfect. In endeavoring to obtain nearly perfect streamlining designers have previously had to rely partly on theory and partly on experimental tests made with models in wind-tunnels.

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PHYSIOLOGY

Motion Pictures Show How Ultraviolet Light Kills

MOTION pictures showing how ultraviolet light of certain wavelengths kills cells were shown before the meeting of the American Chemical Society, by Dr. Ellice McDonald, Alexander J. Allen and Rachel Franklin of the University of Pennsylvania.

They used cells from the spleen for their experimental material, and the wavelengths turned on them ranged between 4350 and 2253 Angstrom units. The wavelengths that were fatal to the cells killed in from fifteen to twenty seconds. The living protoplasm of the cells became greatly agitated, bubbles appeared on the membrane and as a rule the cells finally burst.

The killing effect of the shorter ultraviolet light cannot be equalled by fifteen hours of exposure to strong radiation from radium, nor is the lethal effect of ultraviolet light equalled by twelve to twenty-four hours of exposure to high-voltage X-rays.

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