

injury or will be localized in the tissue wherein they have gained entrance.

The skin, Prof. Kahn found, possesses a combining power for the immunizing substance more than ten times greater than muscle tissue, brain tissue or blood. Since this combining power is a defensive response, it must be assumed that the degree of immunity of the skin is far greater than that of the other tissues studied.

This is perhaps to be expected, Prof. Kahn observed, since the skin, throughout the ages, has been the most exposed to attack by bacteria, making a particularly strong defensive mechanism necessary.

Science News Letter, December 30, 1933

CHEMISTRY

"Diplogen" Suggested As Heavy Hydrogen Name

AMERICAN and British scientists do not agree as to what to name science's new baby, the double-weight hydrogen atom, discovered in America.

Lord Rutherford, in a Royal Society discussion upon heavy hydrogen, urged the adoption of "diplogen" as the name of the double weight hydrogen atom and "diplon" as the name of the nucleus or kernel of heavy hydrogen.

Prof. H. C. Urey of Columbia University, one of the group of American scientists who discovered heavy hydrogen, had already christened the atom "deuterium," and at the University of California the nucleus had been labeled "deuton."

The principal objection to the American terms lies in the phonetic similarity between deuton and neutron. Neutron is the uncharged or neutral particle of nearly the same weight as a proton or ordinary hydrogen nucleus.

If the scientists discussing these atomic particles have colds or do not speak distinctly, deuton and neutron are easily confused in speech, Lord Rutherford said.

Dr. Frederick Soddy, the Oxford chemistry Nobelist, who pioneered in investigations on varieties of elements and coined the word "isotope" protested against the idea that ordinary mass one hydrogen and the heavy weight hydrogen of mass two are really isotopes. He considers hydrogen and deuterium (diplogen) homologues like oxygen and ozone rather than true isotopes.

Science News Letter, December 30, 1933

ARCHAEOLOGY

Hidden Temple Found Within Mayan "Castle"

A BEAUTIFUL temple hidden within a temple has just been discovered by Mexican government archaeologists at the old Mayan city of Chichen Itza. The hidden temple is in the lofty Castillo or so-called "Castle", a temple to the Feathered Serpent god, perched on the highest pyramid base in the city.

Aware of the ancient Indian trick of building new structures over old, to honor the gods or to mark the passing of periods of time, no one knows exactly why, the excavators began a year ago to probe into the interior of the gigantic substructure of the Castle.

At first they encountered only walls of a smaller inner pyramid. Later they found a human sepulcher. The burial was accompanied by funeral offerings of turquoise mosaics, thousands of turquoise beads, and exquisitely carved fine jades.

This year they followed the sloping walls of the hidden pyramid upwards, and came upon a stone shrine on the flat summit. The building thus discovered is almost perfectly preserved. The early pyramid and temple had not been destroyed, but merely heaped over with earth and rock to form a larger base for the present shrine of the Feathered Serpent. The roof of the buried temple is flush with the flat summit of the present temple, and forms the floor of the adulatory.

While the theme of designs of the exterior temple consists of plumed serpents and warriors, the most import-

ant decorations of the older shrine are tigers. The tigers are sculptured in stone on the frieze above the door. The facade also has bands of geometrical designs, ornamental shields, and flower-like rosettes sculptured into the stone. These decorations are entirely different in style from those of the present outer temple.

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PHYSICS

Raman Effect Found Different in Heavy Water

HEAVY water takes light of one color and changes it to light of slightly different color in a way not the same as this Raman effect in ordinary water, Dr. R. W. Wood of Johns Hopkins University has demonstrated.

In communications to *Nature* and *Science*, Dr. Wood reports that water containing the recently discovered hydrogen isotope of mass two, when lighted with ultraviolet light of 2536 Angstrom units from a mercury vacuum tube, changes part of it to longer wavelengths that average 2711 Angstrom units.

This is a new proof of the optical effect discovered in 1928 by Sir Chandrasekhara Venkata Raman, Hindu scientist who was awarded the Nobel prize in physics for 1930. Dr. Wood was the first to verify the Raman effect outside of Raman's own laboratory.

The new Raman band discovered by Dr. Wood agrees within 4 per cent. with the expected value derived from theoretical calculations. The band observed is due to water molecules that have one atom of heavy hydrogen and

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