

MEDICINE

High Voltage Tubes Declared Of Little Value Against Cancer

THE OLD ADAGE, "Shoemaker, stick to your last!" was told, in effect, to the world's physicists in an editorial in the *American Journal of Cancer*. Dr. Francis Carter Wood of Columbia University is editor of the *Journal*.

Very high voltages in X-rays are probably of little or no use in treating cancer, stated the editorial.

"The physicists who have suggested that a million volt X-ray will do wonders in the curing of cancer had better return to their own problem of fracturing the atom," the editorial declared.

"The real question in the treatment of cancer today is the adjustment of the dosage administered to the biological

rhythms in the cancer cell and the surrounding healthy tissues.

"Of all the variables entering into the problem, the wavelength of the radiation as determined by the voltage is probably the least important."

Radium and moderate voltage X-ray have been found equally effective for treating cancer, when used under the same conditions. Radium is not considered any better than X-ray except when it is possible to obtain intense local action by inserting radium into the tissues.

"It is therefore very doubtful that unusual curative possibilities lie in a million volt X-ray, for six million volt X-ray is available in radium," the editorial concluded.

The expense and difficulty of handling the apparatus furnishing greater voltages than the present commercial limit of 300 kilovolts must not be forgotten. It is preferable to place the money which the high-voltage apparatus would require in radium because of the greater convenience and ease with which that substance can be handled, the editorial suggested.

"Cost is of immense importance, for the vital fact is that radiation should be available for the many rather than limited to the few victims of cancer who have large means."

Science News Letter, March 11, 1933

ARCHAEOLOGY

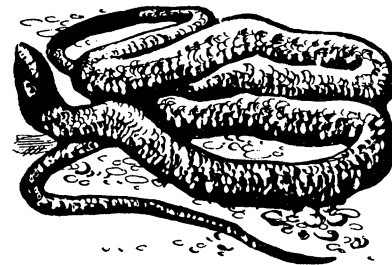
35-Century Old Egyptian Quarries Found

EGYPTIAN quarries, lost 35 centuries, have been discovered by a Cairo museum official in the desert west of the Nile, near Abu-Simbel.

The quarries contain diorite, a gray colored rock. Amethystine quartz is present in the rock, indicating that the ancient Egyptians may have used these quarries as a source of their amethyst.

Discovery of the quarries follows an earlier, accidental discovery made by Sir Charles Spinks, inspector general of the Egyptian army. While on western desert patrol he found cairns containing stone tablets and tables of offerings. Museum officials became interested and investigated the region.

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No Snakes for St. Patrick

OLD LEGENDS to the contrary notwithstanding, St. Patrick never drove any snakes out of Ireland.

Even if the great bishop of Erin had had any time to spare for herpetological pursuits, he would have been hard put to it for raw material, for there hasn't been a snake in Ireland for at least a hundred thousand years.

If there ever were any snakes in Ireland at all, they were driven out by a mightier than Patrick, wielding a greater weapon than a bishop's crozier.

They were driven out by Patrick's master, the Lord God himself. And He used the cold breath of the great glaciers, that lay over the earth in pre-human days, to rid the Green Island of its serpents.

It is not certain that the ice of the Pleistocene ever covered all of Ireland. It would not be necessary for it to do so, however, in order to do away with snakes and other reptiles. Snakes are creatures of the sun. No snake could live within hundreds of miles of the front of the continental glaciers.

But when the ice retreated, leaving Ireland warm again, what was there to prevent the snakes from coming back?

Salt water. Ireland has been separate from England, in a geographic sense at least, ever since the Ice Age closed. And no snake can cross the Irish Sea, or any other body of salt water. There is only one genus of snakes in the world that habitually lives in salt water, and they are tropical serpents that never lived anywhere near Ireland. Land snakes can swim in fresh water all right, but they dread salt water almost as much as they do fire. So Ireland has sat, securely seagirt against all serpents, through all human times.

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weight among waters. The light water is about 13 parts per million lighter than normal water.

Prof. Gilbert N. Lewis, University of California chemist, has obtained heavy water which now holds the world's record, by use of the Bureau of Standards method.

This extraordinary water has a specific gravity of 1.035, whereas normal water is the liquid upon which specific gravity measurements are based and therefore its specific gravity has a value of one. More than one-third of the hydrogen in the heavy water consists of the hydrogen isotope of atomic weight approximately two.

The heavy water obtained at the University of California is 35,000 parts per million heavier than ordinary water, whereas the U. S. Bureau of Standards water is 1,400 parts per million heavier than normal. Experiments showed that the University of California heavy water has a refractive index one tenth per cent. below that of ordinary water.

The unusual waters are no mere curiosities but steps to a more precise knowledge of the properties of matter. From such slight differences that might seem insignificant at first glance, some of the most important industrial developments in our modern world have arisen.

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