SCIENCE NEWS

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THE NEW CALENDAR IN CONGRESS

CALENDAR simplification will come before the House this session, if Representative Stephen G. Porter, chairman of the House Foreign Affairs Committee, can bring it about. He has introduced (April 30) a new resolution, recommending that President Hoover propose such a conference or accept on behalf of the United States an invitation to participate in one.

"An international movement to change the calendar is already in progress and appears to be strongly supported by public opinion in the United States," according to Representative Porter. "The conference should be held some time this year, because the next convenient year to start a new calendar is 1933, which begins on Sunday. As much time as possible is needed to prepare for the change. This resolution does not commit our government to any particular plan of calendar change. The international conference would consider all plans of calendar simplification and all objections to them, religious and civil. Religious authorities would, of course, be consulted. From the discussion, the best plan of calendar change would undoubtedly emerge."

Representative Porter's committee had extensive hearings last session on a similar resolution, but did not report it back to the House. Mr. Porter, it is understood, by introducing the present resolution, is getting ready for action in case the present session should break over the bounds set for it for limited legislation.

Certain religious sects have voiced their opposition to the calendar change which they understood was in the offing, which would make a year consist of thirteen months of twenty-eight days each, and one or two odd days, with no week-day names. In most cases they have not objected to an international conference for a calendar change, but they have very decided ideas as to certain changes which they do not want.

Representative Porter, it is also understood, is quietly laying groundwork in foreign countries as well as in the United States for the international calendar simplification conference, which he is confident that he can bring about in a year or two.

MODERN BIRDS IN ANCIENT FLORIDA

MODERN species of birds flew over the backs of beasts long since extinct, far back in the Ice Age, in the marshes and lakes of what is now Florida. A great collection of bird bones, only recently unearthed and not all of them yet received in Washington, was reported before the meeting of the National Academy of Sciences by Dr. Alexander H. Wetmore, of the Smithsonian Institution.

The bones were found not far beneath the surface of the ground, near the town of Vero, where sensational fossil finds a few years ago hinted at the possible existence of man on this continent during the Ice Age or very soon after its close. Most of the bird bones, being delicate, were broken, but Dr. Wetmore has been able to identify 48 species by a careful examination of the fragments.

Most of the birds are of species that still fly over Florida, though a part of the collection consists of birds that have never been seen in the state in modern times. They were associated with the bones of extinct mammals such as mammoths, tapirs, ancient horses and glyptodons or giant armadillos.

Since the bone bed from which they were taken shows indications that it was an ancient marsh, it is natural to find many swimming and wading birds, such as ducks, geese, spoonbills, herons, grebes, a large stork now known mainly from South America, and the nearly extinct whooping crane.

One of the most interesting finds consisted of bones that belonged to a condor. At present only two species of condor are known, one in the California mountains and one in the Andes of South America; they are the largest birds that fly. The Florida specimen appears to be identical with the California condor, except that it was larger.

Another extraordinary bone was a broken piece of the shank of a long-departed turkey gobbler, with three spurs instead of the customary one. European birds with multiple spurs have been reported, Dr. Wetmore said, but this is the first instance on record of a three-spurred American turkey.

SEX IN MICE CANCERS

IN support of his hope that biological researches, particularly those involving hereditary studies, eventually will help to discover the nature of the causative agent of cancer, Dr. Clarence C. Little, president of the University of Michigan and director of the laboratory of mammalian genetics, has announced that the appearance of cancer has been influenced by surgical transplantations in otherwise immune mice.

"Cancer of the breast is known to be inherited in one of the laboratory strains of these animals," Dr. Little said. "It occurs in more than 90 per cent. of the breeding females which live to be 18 months old. It does not occur in the brothers of these cancerous females. Why is this so?"

To answer the question, Dr. William S. Murray, of the laboratory staff, made extensive investigations at Dr. Little's suggestion. Some 200 male mice of the particular strain were made "neutral" as regards sex by removing their male glands when they were only a few weeks old. The operated animals remained non-cancerous. Apparently the absence of male sex glands was not sufficient to induce cancer to develop.

Then taking another group of 200 male mice so "neutralized," he placed under the skin of each, the ovary from one of their sisters, which, he pointed out, were cancerous nine times out of ten. The transplanted ovarian tissue persisted and grew under the skin of a number of

the operated males. In 37 of these mice cancer of the breast occurred.

Thus, it seems that some ovarian secretion is one of the causative factors in the formation of cancer of the breast in this particular stock of mice. While of only limited significance as a single series of experiments, the research opens a new method of attack upon the problem of cancer.

THE PRESERVATION OF INDIAN MOUNDS RECORDS

THE preservation of irreplaceable earth monuments built by Indians in middle western America long before the white man came will be urged at an archeological conference called for May 18 at St. Louis under the sponsorship of the National Research Council.

Dr. Knight Dunlap, chairman of the division of anthropology and psychology, states that plows, steam-shovels and souvenir dealers are destroying forever the tombs and buried records of an ancient civilization that built pyramids that rival those of ancient Egypt.

"Once the states and local communities of the Mississippi Valley realize the value of these heritages from the past they are sure to take steps to properly protect them," Dr. Dunlap said.

Governor Henry S. Caulfield, of Missouri, will open the conference on May 18 and among the many speakers will be Dr. Wm. John Cooper, U. S. Commissioner of Education, and Dr. M. W. Stirling, chief of the U. S. Bureau of American Ethnology.

Many wild theories have been advanced to account for the Mound Builders. They have been described as a lost race; as one of the ten tribes of Israel; as descendants of early Scandinavian or Welsh invaders; as a colony from the Maya civilization in Central America, or even as Egyptians, Chinese or peoples from the "Lost Atlantis." To-day it is agreed that they were American Indians, but this makes them none the less interesting, for in their monuments they have left us a record of the development of an American civilization, built by the American Indians, on American soil, through a long period of time.

Scientific men are making rapid progress in the study of the lives of the prehistoric inhabitants of America, but they need all the materials they can get. Still the work of destroying the mounds and other remains of our predecessors goes merrily on. Farmers plow the mounds down to make simple the tilling of their fields. Tourists dig into them in the hope of getting arrowheads. Some have even been blown up with dynamite. Dealers in souvenirs exploit them indiscriminately. In one county of Illinois there are 655 mounds and all but 50 have been looted. The contents have been scattered and valuable historical "documents" have been forever lost.

Most of this destruction has been done in ignorance of the fact that the trinkets are of no value scientifically (and of very small value in any other way), unless accompanied by a careful record of the details of excavation by which they are obtained. It is the total picture of the position and arrangements of objects in the mounds that reveals important facts to the investigator. This is all lost when amateurs and pot-hunters rifle the sites, moving and breaking the tell-tale remainders of an ancient housekeeping.

The National Research Council is interested not only in the preservation and scientific study of these remains, but in the making of the sites useful as well as instructive to the states in which they lie. When these sites are properly parked and guarded, they offer locations for outings and picnics which attract not only citizens of the state, but also thousands of tourists from outside.

EXPERIMENTS ON SPACE PERCEPTION

ALICE IN WONDERLAND fell into a topsy-turvy world, but the world that Miss Jane Goldschmidt, of New York, a senior specializing in psychology at Smith College, has recently discovered with the aid of a pair of prism glasses, is almost as bewildering.

How would you like to reach for a glass of water and meet only empty space—to think straight doors were curved—or to see rainbows around the heads of all your friends? This is what happened to Miss Goldschmidt when she set out to investigate the habit of space perception.

Psychologists say that the ability to tell what objects are far away and what objects are nearby is a habit which must be acquired. In infancy the world seems only a confusing blur of color and line. Gradually, however, by reaching for things and in other ways, we learn to see the world in three dimensions, and thus form the habit of space perception.

Miss Goldschmidt decided to investigate the habit further. For three days she wore a pair of prism glasses which moved everything she saw to the left. Straight lines became curved, and everywhere light was bent or refracted as it passed through the prisms into rainbow bands of color. To this new situation, Miss Goldschmidt's old habits of space perception were poorly adapted. She reached for a pencil and felt only her desk. She walked towards a door and struck the wall. Soon, however, she began to form new habits, and could reach for things with hope of success. To learn to walk down-stairs took longest of all, but in three days she was completely adjusted to her new world.

When she took off the glasses she had the same difficulties as when she had put them on. All the curves, errors and bands of color were still present, but reversed. It took her a day and a half to feel at home again.

One of the most interesting results came when she touched a straight surface which, through the glasses, appeared curved. It felt curved as well. This seems to indicate the primacy of sight over touch—a point which has long been debated among psychologists.

This is the first time the prism glasses experiment has been tried continuously, and Miss Goldschmidt's findings will soon be published. She intends to continue the study of psychology next year at Columbia University.

ITEMS

CALF'S liver may be a more epicurean dish, but the liver of any other domestic animal may prove as efficient

in curing anemia. Young lamb's liver, judged by the amount of minerals it contains, may have a vitamin content and anemia-curing power equal, if not superior, to that of calf's liver. Investigations show considerable variation in the mineral and nitrogen content of the livers of calves, oxen, lambs, hogs, colts, chickens and rats, according to Professor J. S. McHargue, W. R. Roy and F. E. Hull, of the Kentucky Experiment Station, who gave an account of their work to the American Chemical Society at its meeting at Columbus. Whether livers from these various animals can make as great an appeal to the palate as that from calves is still an open question.

TOO much vitamin D may be injurious, according to studies reported to the American Chemical Society by R. F. Light, Glennard Miller and Dr. C. N. Frey. Loss of weight and halted growth result from too much of this vitamin, smaller amounts of which are essential to the formation of bones and teeth. Using white rats as subjects, these investigators found that moderate overdosage of ergosterol, potent source of vitamin D, when given for short periods of time had no effect on the growth of the rats. Massive overdosage, as much as 100,000 times the curative dosage per day, caused the animals to stop growing and to lose weight. They ate less and the amount of calcium and phosphorus in their blood increased.

HONEY is a popular and suitable food for the nursery, but can not be regarded as a satisfactory supply of vitamins. Tests carried out on a fresh sample of English honey from the comb and on West Indian honey showed that both samples were deficient in vitamins A, B, C and D. This work was carried out by Dr. Edward Hoyle at the Lister Institute, London. Dr. Hoyle also found that the deficiency of vitamins in honey is not due to deterioration caused by storage.

TWO layers of ozone in the earth's atmosphere, one due to ultra-violet light from the sun, the other due, perhaps, to particles or corpuscles shot at the earth from sun-spots, were described at the meeting of the American Geophysical Union on April 25. In telling of his studies, Dr. F. E. Fowle, of the Smithsonian Institution, said that one of these layers of ozone, which is a form of oxygen, shows an annual period of change, depending on the position of the earth in its orbit. Probably, he thinks, it is due to ultra-violet light, which varies in intensity at different times of the year. Unlike this layer, the second layer of ozone shows a close relationship to sun-spots. When the sun-spots are at their minimum number, it will probably be absent entirely, though the observations have not continued long enough to ascertain this. Dr. Fowle suggested that some emission of minute corpuscles from the sun-spots might account for this layer.

DR. FRIEDRICH SCHLAEPPI, bacteriologist at Berne, has experimented with milk from nursing mothers and found that the milk has bactericidal power to a very high degree. If the milk is kept at a mean temperature this power may be demonstrated for sixty hours or more. Such bacteria as get into it are at least very much retarded in their development if not actually killed. The milk is even able to destroy bacteria which do not normally occur. Boiled milk has not this power. The boiling destroys the milk's germicidal properties. Dr. Schlaeppi has succeeded in filtering milk, obtaining a clear greenish liquid which contained albumin but no fat. The germs naturally contained in the milk stayed back with the fat, but the power to kill bacteria remained in the clear filtrate. This was proved by adding germs to the filtrate, which destroyed them.

THE attempts recently made to stock the upper Mississippi River Wild Life and Fish Refuge with beaver colonies are beginning to show good results. Superintendent W. T. Cox in a recent report states that the beavers captured in northern Wisconsin last spring and liberated on the flats near Wabasha, Minnesota, are apparently doing well. Reservation rangers of the biological survey recently discovered two fine new lodges constructed by the animals on a small slough near the place they were liberated. After seeing these, Mr. Cox stated that from the quantity of winter food collected by the beavers and submerged in front of the new lodges and from the extent the animals have cut the aspen and willow growth along the slough, there has been some increase from the pairs liberated.

TEN pearl-like fossils found by geologists of the University of California in rocks laid down about 25,000,000 years ago have proved under test to be real pearls, conforming in structure with the modern variety, and having as their source molluscs related to the present pearl oyster. The pearls were uncovered while the university men were searching for fossils of the Cretaceous period near Redding, Calif. In spite of their 25,000,000-year burial from the time when dinosaurs were making their last stand on earth, the pearls still maintain a little of their luster. Such finds are extremely rare. Some years ago one was reported in England, from the same mollusc and the same period in the earth's history, and one other from the same period has been reported from Texas. In size the California pearls vary from three sixteenths to five sixteenths of an inch in diameter.

A METEORITE, which descended from the sky to a group of Indian ruins about five miles from Winona, Arizona, and discovered by a Flagstaff filling station operator, has been found to contain over five per cent. of sulphur. This has been determined after analysis by two geologists, Robert E. S. Heineman, assistant geologist of the Arizona Bureau of Mines, and L. F. Brady, headmaster of the Mesa Ranch School at Mesa, Arizona. The meteorite was egg-shaped, but badly decomposed as a result of the years that have elapsed since it fell. It was buried ten inches below the ground. It was of the stony type, but contained small amounts of iron, which, when properly treated, showed the curious network of "Widmanstatten figures." The sulphur was present in the form of iron sulphide.