

FOREST PROTECTION

**Ash-trays Recommended
As Part of Hunting Outfit**

WEARING ash-trays as part of one's hunting costume is recommended by the American Game Commission as one way of reducing forest fires.

The ash-tray adornment can be elaborate or simple, according to the dictates of the wearer's taste.

Warden Frank Sanda, of Pennsylvania, who started the fashion, suggests that any kind of small tin can or box with lid, with two safety pins soldered on its back, will serve the purpose. It may be worn at the spot considered most convenient by the hunter or other outdoors devotee.

The use of such containers for depositing cigar and cigarette stubs, pipe ashes, and burnt matches, is urged, particularly at this time of the year when fires are a serious menace to forests.

Science News Letter, August 8, 1931

ASTRONOMY

**Neptune's Satellite
Weighed for First Time**

NO LONGER will the world wonder about the weight of Neptune's satellite, because three Mount Wilson Observatory scientists have collaborated in determining the body's mass.

Dr. Seth B. Nicholson, eminent astronomer, calculated the mass, assisted by Dr. Adrian van Maanen and Howard C. Willis of the observatory's staff.

The satellite is probably not greater than one-tenth or less than four one-hundredths the mass of the earth, Dr. Nicholson declared, giving for the first time a report on the body's mass.

The significance of this observation, Dr. Nicholson stated, is the relation of the satellite to the probable mass of Pluto, the ninth planet, discovered last year. From this calculation, the astronomer indicated Pluto's size probably is similar to the mass of Neptune's mate.

"The mass of Neptune's satellite may be determined from its perturbations on Neptune if sufficiently accurate observations of Neptune's position are obtained," Dr. Nicholson stated. "Neptune revolves about the center of mass of it and its satellite at a distance which depends on their relative masses.

"Photographs of Neptune were taken on 13 nights from May 8 to 22 of this year with the 60-inch reflector on Mount

Wilson. Since Neptune was stationary in right ascension on May 15, the plates could be measured in pairs on the stereocomparator using the same comparison stars for the whole series.

"All plates taken on three nights and one plate on another night were at first rejected as too poor to measure, but later two of these plates were measured on account of their favorable position for the determination of the mass. Additional plates were taken on March 17, June 17 and 18 which were used to correct the ephemeris of Neptune. With the corrected ephemeris the relative motion of the center of mass of the system was obtained from each pair of plates.

"The difference between the computed motion of the center of mass and the observed motion of Neptune was used to determine the mass of the satellite."

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ARCHAEOLOGY

**"Ancient" Remains Prove
To Be Recent Indians**

REPORTS which had begun to gain circulation, to the effect that remains of human beings thousands of years old had been scooped up by steamshovels at gravel pits near Stratford, Iowa, have been set straight by prompt investigation of the gravel sites by Dr. Truman Michelson, of the Smithsonian Institution.

Dr. Michelson, who visited the scene of the steamshovel operations at the request of Science Service, in order to make a scientific investigation, found remains of Indians who lived perhaps two or three centuries ago, but no remains of men who lived in the days of the mammoths as rumors had declared.

Age of the Indians is estimated by Dr. Michelson from the fact that the fragments of skull which he examined are not mineralized, as ancient bones are apt to be; and also from the fact that bones of horses were found, showing that these Indians date from a time after the Spanish conquerors brought horses to America. A single stone axe, polished and grooved, and broken pottery of a rough Algonkian type, were unearthed with the bones.

Two sites near Stratford, six miles apart, have been examined by Dr. Michelson, who found both wrecked by the gravel shoveling. One undisturbed area, which may contain additional burials, will be excavated this fall, if present plans are carried out.

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IN SCIENCE

MEDICINE

**Vaccinating Babies With
Tuberculosis Germs Favored**

THE COMMITTEE appointed by the Academy of Medicine at Paris to investigate the vaccination of newborn babies with living, attenuated tuberculosis germs, has just given a favorable report on the method, which was devised by Professor A. Calmette of the Pasteur Institute.

The committee concluded that there were no proved cases in which the vaccine, known as B. C. G., when given by mouth had changed from its attenuated, weakened form to a virulent disease-causing one.

In the great majority of cases, B. C. G. was stood well by the infants.

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ASTRONOMY

**First Large All-American
Telescope Nears Completion**

THE NEW 69-inch telescope of the Perkins Observatory of the Ohio Wesleyan University at Delaware, Ohio, is expected to be in operation by June.

The larger mirror, to be the third largest in the world, is now being ground and polished at the factory of J. W. Fecker Company, Pittsburgh, Pa.

Dr. Harlan T. Stetson has been advised that the extremely accurate figuring of the giant piece of glass is progressing more rapidly than in the case of large telescope mirrors because of the high quality of the boro-silicate glass cast by the U. S. Bureau of Standards.

This mirror is the first large telescope disc to be made in America. The government glass makers succeeded in demonstrating the possibility of making large pieces of optical glass in this country.

As the telescope mounting has already been installed by the Warner and Swasey Company, Cleveland, the new 69-inch telescope will be the first large telescope to be made completely in America.

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E FIELDS

MEDICINE

Cod Liver Oil Better Than Viosterol for Rickets

WARNING that viosterol, which is irradiated ergosterol and potent as preventive of rickets, should not be generally substituted for cod liver oil in the diet of children was issued by Prof. A. R. Bliss, Jr., of the University of Tennessee at the meeting of the American Pharmaceutical Association, at Miami.

Prof. Bliss and his associates, E. O. Prather and Martha Nelson, found that while viosterol has an effect on calcification and growth of bone, and therefore is able to prevent or cure rickets, it has not the power to stimulate growth and development of the body and vital organs or to prevent infections of the upper air passages.

"Since colds, malnutrition and intestinal inadequacies are more frequent in children than rickets, this study emphatically suggests that the apparently widespread substitution of irradiated ergosterol (viosterol) for cod liver oil in the diet of the child is not logical and may result in an appreciable decrease of the child's strength and resistance to infections," these investigators concluded.

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ETHNOLOGY

Indians Would Revive Authentic Tribal Costumes

NO LONGER is the long, feathered war bonnet to be worn by every well-dressed Indian as "the Indian tuxedo." Indians of various tribes who have gravitated to Hollywood to become moving picture actors, singers, artists, or to work at other occupations have started a movement to revive authentic tribal costumes. When they appear in public in Indian regalia they will attempt to have the regalia just what their own tribesmen would have worn in the ancient times.

The costume movement has been started by a faction headed by Joe Noonan, a Cherokee artist of considerable ability. It is pointed out that

Hollywood and Los Angeles have a floating Indian population of several hundred. These Indians often appear in public at functions in what they considered Indian costume. Now, they realize that many of their costumes are hodge-podge collections of garments gathered from tribes all over the Plains area and the Southwest. The war bonnet, the most conspicuous example of this borrowed finery, was originally worn only by tribes of the Plains area, yet it has spread from coast to coast with variations until ethnologists dubbed it "the Indian tuxedo."

If the more studious Indians take pains with their tribal outfits worn on public occasions, it may yet be possible for the observer to distinguish the tribes by noting the cut of garments, the bead or quill work decorations, and the type of headgear worn.

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MEDICINE

Cases of Lead Poisoning Not Hard to Detect

IF A MAN dies of lead or mercury poisoning, it should not be hard to determine this fact after his death, it appears from a report to the American Pharmaceutical Association by Dr. E. V. Lynn of the University of Washington. Dr. Lynn, with his associate, L. W. Rising, found that the full amount of mercury or lead present in the body at the time of death can be isolated from the body for a protracted period of time thereafter.

A great many of the published methods for the determination of these poisons are faulty, they found. They also reported toxicological studies on cocaine, morphine, phenol and iodine.

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ENTOMOLOGY

Two Aristocratic Ladies Emerge From Retirement

See front cover

There is something about newly-emerged silkworm moths that makes one think of the ladies of Cathay or Cipangu, long ago and far away, clothed in silk spun by ancestors of today's silk worms.

In the cover picture of this week's SCIENCE NEWS LETTER, Cornelia Clarke has made an admirable camera capture of that atmosphere, most palpable to the fingers of the eye, but not to be snared in words.

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ARCHAEOLOGY-ETHNOLOGY

Digging Devil Worshippers Help Reduce Unemployment

AN ANCIENT people older than the Assyrians are solving a present-day unemployment problem in the town of Mosul, in Mesopotamia.

In 1927 the village was the poorest in the district. Its inhabitants were out of work and had no money. They lived on flaps of barley bread and water, supplemented several times a year with a piece of meat or a few vegetables.

Today they are out of debt, they own sheep, they have good food, and they have even begun to save money.

This bringing of prosperity to a poor town in Asia Minor is a secondary accomplishment of the archaeological expedition of the University of Pennsylvania Museum and the American Schools of Oriental Research and Dropsie College, explained Professor Ephraim A. Speiser, director of the expedition. About 300 workmen have been employed, he said. Some are Devil Worshippers; others are Mohammedans and Christians of the Chaldean and Jacobite sects.

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CHEMISTRY

Wood Alcohol Dangerous If Absorbed Through Skin

THE DANGER to health and life from methanol, cheap synthetic wood alcohol which is being widely used as an automobile radiator anti-freeze and in certain industries, is not limited to its use as a beverage, Dr. Carey P. McCord of the Industrial Health Conservancy Laboratories has reported to the American Chemical Society.

The deaths last winter of 208 persons who drank methanol have overshadowed its other dangers, Dr. McCord pointed out, and urged that unusual protective measures for the safety of the public and of industrial workers are needed.

Methanol is now finding wide use in such industries as dry-cleaning, hat-making, metal-working, painting and cabinetmaking.

Methanol is just as dangerous when absorbed through the skin or when its vapor is inhaled as when the liquid is drunk, Dr. McCord found in investigations with animals. Authorities are not agreed, however, on the question of whether methanol is dangerous through skin absorption and inhalation.

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