

ANTHROPOLOGY

"Uncle Sam's" Nose is Not Typically American

UNCLE SAM'S nose, as drawn by most cartoonists nowadays, is not typically American, declares Dr. Ales Hrdlicka, Smithsonian Institution anthropologist. That decidedly curved beak may be all right on the old gentleman's favorite bird, but it isn't right on his own countenance.

Dr. Hrdlicka has measured hundreds of "Old American" heads—people whose forebears have been in this country for several generations and whose ancestors were mostly Anglo-Saxon. He has found that most of their noses are either straight or only slightly convex. Almost never, the veteran anthropologist declares, has he encountered an "Uncle Sam nose" on an "Old American" face.

Science News Letter, March 22, 1941

CHEMISTRY

English Firm Making Textile from Seaweed

NEWEST raw material from which synthetic textiles can be manufactured is seaweed, according to a report to the American Chemical Society from a British correspondent.

Details have just been disclosed in England, it is revealed, by Prof. J. B. Speakman, who has been carrying on researches during the past two years for a British firm. The name of the company is not given, because, it is said, "it has not yet attained large-scale production of the new product and does not wish to be asked for samples at this stage."

In former years, seaweed was collected in the Hebrides to the extent of 400,000 tons annually, it was stated. Far larger amounts are available from the west coasts of Scotland and Ireland as a whole, so the raw material is abundant and should be very cheap.

From the seaweed is extracted alginic acid, which makes up about 20 to 30 per cent of the dried seaweed. This can be dissolved and then spun in a solution of acid, through spinnerettes like those used in making rayon.

Such fibers, spun in acid, dissolve in soap and soda solutions, and hence are useless as textiles. The alginic acid can, however, be combined with inorganic material in the form of compounds called alginates. These are resistant to alkalies, and constitute the new fibers.

They have good luster and strength, and are non-inflammable. In fact, it is said, the fabric can be soaked in gasoline, the latter ignited and burned away, leaving the fabric the same as before this treatment. It costs less to make than viscose rayon, says the report.

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MEDICINE

Blood for Transfusions Subject to Sales Tax

TAX collectors have often been called bloodsuckers, sometimes in jest and sometimes in earnest. Now they are taxing blood itself.

New regulations issued by the sales, service and use tax division of the Colorado state treasurer's office decree:

"Blood is in some instances obtained, classified, stored and sold in a manner similar to other items of tangible personal property, by what are usually termed 'blood banks.'

"Where this item is handled in this manner and dealt with at a definite commercial price, and purchased from a person or persons engaged in the business of selling such item, the sale shall be deemed to be the sale of tangible personal property, and subject to the sales tax."

The Colorado sales tax is 2%.

Blood passed directly from donor to receiver is not taxed. As the Colorado service tax originally stood, it might have been, but in 1938 the Legislature, due to protests against collection of the service tax on humanitarian services, repealed it so far as those services are concerned.

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PHOTOGRAPHY

Device for Copying Books Photographs on Paper

IN a recently patented device for copying from books, two opposite pages can be reproduced simultaneously. Sheets of photographic paper are placed with the emulsion in contact with the pages, these are put in the device which has spring fingers to hold the pages and paper against the glass top and side of the cabinet. Then lights operate inside to make the exposure. No lenses are used, but the result is a negative print, since the black ink of the printing reflects less light back to the emulsion than the white paper, and the exposure is less. (*Patent 2,227,850, Luma, Inc., Pittsburgh.*)

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IN SCIEN

PSYCHOLOGY

Defense Work Does Not Stop Englishman's Tea

EVEN the rush of war work is not enough to keep the Englishman from his tea, judging by an advertisement in *Flight*, (Feb. 6). Among the advertisements for metal work, aluminum castings and other material and equipment used in airplane construction is one for a boiler to be used in the shop from which can be obtained water for tea!

"You'll never get a better cup of tea than you will if it's made on the spot from freshly boiling water," the announcement promises. "Taking the men to tea, or the tea to the men, are equally wrong. Making it where they work is the only sensible way—and for this you need a So-and-so Boiler."

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GENERAL SCIENCE

Science Books Reach New Peak in U. S.

BREAKING all quantity production records for the United States in scientific and technological books, publishers turned out 3,432,642 volumes in 1939, the Bureau of the Census has just reported, from figures it has compiled on the latest Census of Manufactures.

This peak record represents an increase of more than a million books on science and technology over the previous manufactures census, of 1937. Added to these might be over 1,868,000 books on medicine, 1,018,000 books on agriculture, and many other books which overlap into the science and technology class, but are in another Census Bureau classification.

There has been a steady increase in books on science and technology in the United States for the past decade, Census officials find.

Still the best seller in America, however, is the Bible, which in 1939 reached a production figure of 7,927,848 volumes. This includes entire Bibles, separate Testaments, and portions of the Bible published in separate covers.

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CE FIELDS

FORESTRY

New Electric Method Estimates Health of Trees

TREE surgeons now have available an instrument that will do for them what the stethoscope does for the doctors who safeguard the health of humans—make a quick estimate of what's going on inside.

The new method is a result of the discovery, by Thaddeus Parr of the U. S. Department of Agriculture, that there is a slight difference in electrical potential between top and root of a tree. During the time of fastest growth in spring, this gradient is from top to root; later, it reverses its direction. But in a tree seriously injured by insects or otherwise in bad health, the reaction is abnormal, being either weaker than in a sound tree or reversed in direction.

A comparatively simple but very sensitive voltmeter has been developed, that can be carried into the woods, so that field diagnoses will be readily possible by foresters, entomologists and others who have been trained in its use.

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WILDLIFE

Device Removes Swallowed Shot from Ducks' Gizzards

WILD ducks are saved from death by lead poisoning with a device invented by Warren H. Nord of the Minnesota Agricultural Experiment Station here. Mr. Nord's device, which works somewhat on the principle of the stomach pump used in human medicine, will be described in the *Journal of Wildlife Management*, (April).

Wild ducks frequently shovel up shot pellets that have fallen into the water, in the course of their grubbing for food on the bottom. The pellets are retained in their gizzards like small stones, and in time may cause lead poisoning. Serious wildfowl losses have been traced to this cause in recent years.

Mr. Nord's lifesaver for sick ducks consists of two tubes of Pyrex glass, one within the other. The tip of the

inner tube projects slightly beyond the end of the outer one, and is bent over just enough so that its opening is parallel with one side instead of straight across the end.

For operation, the sick duck is laid on its back, with its wings and feet held to prevent it from struggling. The tube is carefully pushed down its esophagus and into the gizzard. A trickle of water is flowed through, in the annular space between the two tubes. This loosens the contents of the gizzard, which are then drawn out through the inner tube, by means of a slight vacuum produced by an aspirator attached to a laboratory faucet.

There is no difficulty in catching lead-poisoned ducks. They are just too sick to fly. The operation, of course, is not particularly relished by the ducks which naturally do not understand what is going on. But it does bring out the poisonous leaden pellets. And Mr. Nord figures it is better for the ducks to be uncomfortable for a few minutes than to be permanently dead.

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ASTRONOMY

Sun's Hydrogen To Last 10,000,000,000 Years

ABOUT 10,000,000,000 years from now, the sun's supply of hydrogen, the fuel that keeps it going, will be used up.

So declared Prof. Augustus H. Fox, of Union College, in an address before the local chapter of Sigma Xi, national honorary scientific fraternity.

In the past history of the sun, estimated at two billion years, he said, only about one per cent of the fuel supply has been consumed. As its hydrogen content diminishes, however, the rate of consumption increases, along with the temperature. On the sun's surface the temperature is about 11,000 degrees Fahrenheit, but at the interior, where the hydrogen is consumed, it reaches many millions of degrees.

The current theory of the origin of the energy of the sun and other stars, on which these calculations are based, said Prof. Fox, is that there is a chain reaction between the nuclei of the atoms, with gaseous carbon and nitrogen acting as catalyzers. These are substances that, at the end of a reaction which they stimulate, revert to their original form. In the process, hydrogen is changed to helium, with the liberation of energy.

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MEDICINE

Male Sex Hormone "Banks" Relieve Uterine Tumors

"BANKS" of male sex hormone pellets implanted in the thigh muscles of women with tumors of the uterus relieved bleeding, discomfort and other symptoms, Dr. Robert E. Greenblatt and Dr. Everard A. Wilcox, of the University of Georgia School of Medicine, reported at the Southeastern Surgical Congress in Richmond.

The treatment does not constitute a cure but is recommended by the Georgia doctors for patients in whom operation to remove the tumor is either not feasible or desirable.

No signs of masculinization appeared in any of the women given the hormone banks or receiving the pure male sex hormone by mouth or by injections under the skin.

The control of the bleeding by the male sex hormone treatment proves, the doctors believe, that this symptom could not have been due to mechanical factors or to the tumor itself but was a result of the associated glandular imbalance.

When treatment was stopped, bleeding and other symptoms recurred. The growth of the tumors, however, was apparently held in abeyance by the treatment. Some women volunteered the information that the tumors seemed to them to have grown smaller.

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CHEMISTRY

Transparent Plastic Knife Not Harmed by Fruit Acids

A KNIFE for such uses as cutting vegetables, fruit and cake is made of transparent plastic. When it is dull, it can be resharpened with an ordinary paring knife. It is not affected by fruit acids, and the same resistance prevents tarnishing. (*Plastics Creations, Atlantic City.*)

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PHYSICS

Rubber for Gasoline Hose Is Electrically Conductive

RUBBER that is electrically conductive is now available. It is used in gasoline hose, airplane de-icers and other parts to carry away charges of static electricity that might spark and cause fire and explosion. (*Goodrich Tire and Rubber Co.*)

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