

PHYSIOLOGY

Hang-Over May Be Due To Too Much Potassium

A HANG-OVER may be due to too much of a chemical called potassium getting into the blood, it appears from the report of Drs. William M. Nicholson and Haywood M. Taylor of Duke University School of Medicine to the Southern Medical Association. The potassium does not come from the alcohol but its excretion from the body is checked by the alcohol's action on the kidneys.

Tests were made of blood and other body fluids of a group of student volunteers who were given a special diet for three days and then given enough alcohol to get drunk. Potassium, the doctors found, was not excreted in anything like normal amounts after the alcoholic intoxication, and there was a greater than normal amount of potassium in the blood.

It has been known for some time that potassium is toxic if an excess is present in the fluid part of the blood. Shock, auto-intoxication and fatigue are associated with a high content of potassium in the blood.

Retention of potassium, the physicians reported, is brought about by direct action of alcohol on the kidneys. They suggest that some of the after-effects of alcoholic intoxication are due to an excess of potassium.

Salt and water were also retained after intoxication, but there was no change in the amount of sugar in the blood. An increase in lactic acid and a slight decrease in carbon dioxide content of the blood were found.

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LANGUAGE

Auxiliary World Language Is Goal of Investigation

RADIO and telephone allow our speech to circle the globe. Airmails carry messages quickly to far corners of the earth and even where wars rage the postal system delivers with high reliability the written word.

The mechanical world has developed a high degree of internationalism.

The greatest barriers to the interchange of thought, ideas and information are the many languages of the world. In Europe alone there are no less than 120 languages, all mutually unintelligible, and 38 of these are used by more than a million people.

Intelligent men and women are silent-

ly helpless when they lack a common tongue. The world would be better off if there were just one language. Obviously that can not be achieved.

But it does seem possible that educated persons might learn enough of an international auxiliary language to be able to talk or communicate intelligently, regardless of what natural languages they might happen to use in everyday affairs. This is no new idea and some 323 constructed or synthetic languages have been devised, only six of which have gained much following: Esperanto, Latino sine flexione, Ido, Occidental, Nov-Esperanto and Novial.

The problem before the world is to achieve one synthetic language that somehow can be established in an authoritative and permanent way. This is a world undertaking of the first rank, but one that will require much research and education before it can be accomplished.

Happily an unpublicized approach is being made by the International Auxiliary Language Association that had its origins in action by the International Research Council. Linguists and other scientists are digging into the difficult task of finding the best possible constructed language. When it is found, the question of getting the world to use it will be faced.

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PALEONTOLOGY

Dinosaur Tracks Found Near Gettysburg Site

GETTYSBURG battlefield, where the Blue and Gray hosts surged to battle, was tramped over by primitive dinosaurs 180 million years ago. Their tracks, indicating that they were two-legged beasts about the size of human beings, were discovered near the famous Civil War site in the course of quarrying stone for a bridge.

Slabs of the shale rock containing the tracks have been taken to the Smithsonian Institution and are being studied by staff paleontologists.

The shale formation in which the ancient prints were found is of Triassic age, the earliest of the three great geologic periods when reptiles ruled the earth. Early dinosaurs were not nearly so large as those appearing later; the largest footprints found at the Gettysburg site are only about six inches long, with a stride of about thirty inches. Other, smaller tracks indicate that some of the dinosaurs were no bigger than chickens.

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IN SCIENCE

SEISMOLOGY

Earthquakes Shake China And Caribbean Sea

WHILE war racked the north of China, an earthquake shook the country in its tropical southern section, records collected telegraphically by Science Service indicate. As interpreted by seismologists of the U. S. Coast and Geodetic Survey, the quake occurred on Dec. 8 at 3:32.4 a. m., eastern standard time. The epicenter was located near the eastern coast, northwest of the Japanese-held island of Formosa, in the general region of latitude 26 degrees north, longitude 119 east.

Another earthquake also occurred on the preceding day, Dec. 7, at 9:25.2 p. m., eastern standard time, at the bottom of the Caribbean Sea near the coast of Nicaragua. The epicenter was in the general region of 13.5 degrees north latitude, 82.5 degrees west longitude. The shock was described as only moderate, in contrast to the sharpness of the Chinese earthquake.

Stations reporting were those of the Jesuit Seismological Association at Canisius College, Buffalo, N. Y., and St. Louis University, St. Louis, Mo., and of the U. S. Coast and Geodetic Survey at San Juan, P. R., Sitka, Alaska, Honolulu, T. H., and Washington, D. C.

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CHEMISTRY

New Hungarian Product Ends Teary-Eyed Task

TEARY-eyed housewives peeling onions will welcome reports of a new Hungarian onion flour which gives a non-crying substitute for the lacrimose vegetable.

The technical journal of the American Chemical Society (*Industrial and Engineering Chemistry*, Nov. 20) reports a new method in which onion flour is mixed with gelatin to form a thick pulp. Salt, fat, palm grease or tallow is then added to facilitate the use of the new product in water. The non-crying onion substitute is sold in the form of lumps, balls or cubes.

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E FIELDS

ZOOLOGY

Afraid of Turkey Hash? Here's an Elk That Isn't!

HERE'S a post-Thanksgiving story, from a remote ranger station. The teller is Mrs. Marguerite L. Arnold, ranger's wife:

"Mom," an old cow elk, has been accustomed to hang around the ranger station in late fall and through the winter, feeding on hand-outs of vegetable peelings, cold pancakes, and similar tidbits.

The evening after a big Thanksgiving dinner the stripped remains of the turkey were placed outdoors, as a treat for one of the half-tame coyotes in the neighborhood. Next morning the skeleton was gone, but nearby was "Mom" chewing on something.

On closer observation the something was found to be the turkey's breastbone. What had become of the rest of the bones could easily be guessed.

Whether "Mom" was the culprit in the Mystery of the Missing Ice Cream is not known. But considering her record in the matter of the turkey subjects her to suspicion.

A half-full tub of ice cream had been set in a snowdrift near the door, buried entirely in the snow. Next morning the snow had been pawed away, the lid removed, and every bit of the ice cream licked out without even upsetting the tub!

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ARCHAEOLOGY

Jacob of Bible May Have Been Adopted

BABYLONIAN writings offer new light on a curious Bible story.

The story is that of Jacob, who went visiting his Uncle Laban; stayed 20 years; married Uncle Laban's daughters, Leah and Rachel; and finally left secretly with wives, 12 sons, and cattle to start life for himself. Hot arguments and shifty dealings between Jacob and Laban in those 20 years have puzzled many a Bible scholar.

Now, on a clay tablet unearthed at Nuzi, Mesopotamia, are discovered sim-

ilar situations, in connection with an adopted son. Hence, the new theory, that Jacob was adopted by his Uncle Laban. Dr. Cyrus H. Gordon reports this theory to the American Schools of Oriental Research. It clears up many points in the Bible story.

If Laban indeed held Jacob as a son, that accounts for Laban's angry claim:

"The daughters are my daughters, and the sons are my sons, and the flocks are my flocks, and whatever thou seest is mine."

In just this way, a patriarch would expect to control a son, adopted or otherwise; but not a mere son-in-law.

Why Rachel daringly stole the family gods on leaving Laban's home is also clearer. The Babylonian text is a contract for a man to adopt a son. It provides that if a real son is later born, both boys share inheritance, but the real son gets the father's gods. Otherwise, the adopted son may have them.

Dr. Gordon points out Bible similarities: Whoever possessed the treasured idols apparently held title to the chief inheritance portion and leadership of the family. Laban seemingly had no sons when Jacob came, but later his sons are mentioned and to one of these sons would belong the father's gods. Rachel, however, wanted her Jacob to have the gods, and her plot succeeded.

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RADIO

Radio Dial Shows Stations On Map

AN INGENIOUS radio tuning dial on which radio stations are shown in their proper location on a map has been patented in the United States by an Italian inventor.

Stations are shown on a map by dots. To each dot is connected a horizontal line which projects across the map to bring it into line with a regular tuning scale which runs across the bottom of the map. The projections are made necessary by the fact that stations are not assigned frequencies in order of geographical location.

The radio user, Inventor Umberto Quintavalle of Milan, Italy, explains, picks the town to which he wishes to listen by looking at the map and turns the radio tuning knob until an indicator is at the end of the line representing the desired station.

Fabbrica Italiana Magneti Marelli Soc. An. of Milan is the assignee of the patent, No. 2,100,453.

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BOTANY-PHYSICS

Luminous Living Leaves Will Light World's Fair

LUMINOUS living leaves will shed soft light along the broad central avenue of the New York World's Fair in 1939. Reflected in the mirror pools, they will yield illumination unique in the history of great fairs.

It all depends on the fact that parts of the under surfaces of green leaves fluoresce, or shine with a gentle greenish-white light, when they are irradiated with certain wavelengths in the high-violet and ultraviolet. Special mercury vapor lamps have been devised to throw their rays upward into the maples, elms, and flowering dogwoods that have already been transplanted to the World's Fair site.

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CONSERVATION

Corn Favorite Grain of Game Birds and Animals

WHEN severe winter weather makes it necessary for game birds and animals to accept grain at the hands of man, they prefer corn to anything else, studies at the University of Wisconsin have shown. The investigations were conducted by A. S. Hawkins, E. B. Moore, and Aldo Leopold.

So fond are some of the animals of corn that special precautions have to be taken to prevent its waste. Squirrels will carry off whole ears; to prevent this, it is recommended that the cobs be impaled on spikes well above the ground level. It is a good idea to have the grain well off the ground in any case, the investigators recommend, so that it will be above snow level when the wild creatures need it most. Just leaving the grain in shock is one simple and effective way of taking care of the matter.

Wildlife needs but little grain to supplement the natural foods which the birds and animals find for themselves. One-seventh of an acre of corn is enough for the game population of an average farm.

During a week of severe winter weather, two pounds of grain will suffice as supplementary rations for a pheasant or a squirrel. Prairie chicken and rabbit require only half this quantity, and Hungarian partridge somewhat less—about twelve ounces. Quail need only half a pound of grain per bird per week of hard winter.

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