

CHEMISTRY

Rare Argon Gas Found in Distant Stars

ARGON, the same gas that produces the pale, pinkish hue in the common advertising signs, has just been discovered in the atmosphere of distant stars by Dr. W. W. Morgan of the Yerkes Observatory of the University of Chicago.

Using the great 40-inch telescope of the Observatory to catch starlight which has taken years to reach the earth, Dr. Morgan passed the rays through a spectrograph and identified argon as one of the gaseous elements in the atmosphere of the star called Upsilon Sagittari.

Argon is one of the "lone-wolf," or inert, gases found on the earth, so-called because it avoids combination with atoms of other elements. It was first discovered by Lord Rayleigh and his colleague Ramsey in 1894 in the air.

The finding of argon on the earth before it was found on the other bodies in the universe recalls the reverse case where the British astronomer Lockyer discovered the gas helium on the sun long before it was isolated on the earth.

Science News Letter, June 16, 1934

MEDICINE

Infantile Paralysis Threatens Big Outbreak

THE BIGGEST infantile paralysis epidemic since 1931, the year of the second largest outbreak in history, is threatening the country's health. Reports received by the U. S. Public Health Service at Washington, D. C., show a large weekly increase in the number of cases and a greater total than was reported at this time in 1931, when that year's epidemic had already gotten under way.

The outbreak this year has centered in Los Angeles and vicinity. Of the total of 179 new cases reported for the country as a whole for the week ending June 2, 163 were reported from California. For the previous week there were 118 cases reported from the whole country with 92 of them in California.

Health officials can not yet tell whether this year's outbreak will spread throughout the country and reach the proportions of the 1931 or 1916 epidemics. No better means of protection against the disease are available now than at the times of the previous out-

breaks. Parents are warned to keep their children away from crowds where the danger of exposure is greatest, and to watch for symptoms of slight illness or indisposition so as to catch the disease in its early stages when treatment is most effective. New methods of treatment have improved the chances of not only saving the life of the infantile paralysis patient, but of warding off the paralysis and crippling deformities which were nearly universal sequels to the disease in former years.

In California blood serum from recovered patients is being used in the hope of giving protection against the disease.

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PSYCHOLOGY

Too Fast Feeding May Cause Thumb-Sucking

ANURSING bottle allowing the milk to flow too freely may be the reason why an infant forms the habit of thumb-sucking. Babies seem to need to suck a certain amount; if they get their food before the desire to suck is satisfied, they will use the finger or something else to suck on.

Puppies taken from the mother dog and artificially fed developed sucking habits when they were allowed to get their food rapidly without a long period of sucking for it. The experiment, which was made on four collie dogs out of a litter of six, was reported by Dr. David H. Levy, a physician of New York, to the *American Journal of Orthopsychiatry*. It confirms his interpretation of why human babies become thumb-suckers.

One pair of the dogs sucked from bottles with small-holed nipples and after feeding were given supplementary sucking on the examiner's finger covered with a nipple. The second pair were fed from bottles having large-holed nipples. The third pair, for comparison, were left at the breast.

The rapid-eating pair learned to suck at each other or at various parts of their own bodies. When changed to solid food these "thumb-suckers" would eat more slowly and oftener and would lick the dish longer after eating than the other dogs.

Dogs fed on the breast were consistently much heavier than the others, and the slow feeders were heavier than the short-time feeders.

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IN SCIEN

MEDICINE

Tonsils Sometimes Useful, Medical Authority Says

TONSILS appear to be part of the mechanism by which the body defends itself against disease during infancy and childhood, Dr. Lee Wallace Dean, professor of otolaryngology at Washington University Medical School, St. Louis, pointed out at the meeting of the American Medical Association.

The question of whether to take them out or leave them in consequently depends on whether the good of their natural function is overbalanced by the infection that may be located in them. No definite rules can be given on the subject of removing them. Each case must be decided on its own merits.

Enlargement which interferes with breathing, disease, acute tonsillitis and toxic malnutrition are some of the indications for removal, Dr. Dean said.

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ARCHAEOLOGY

Fabled Gold Unearthed Mistaken for Brass

SOME of the fabled gold of which the Niebelungenlied sings, worn by the German Burgundians 1,600 years ago, has been unearthed by workmen near Cottbus in eastern Germany. The find consists of five large rings of gold worn on the upper and lower parts of the arm and the neck.

The men who first examined the rings mistook them for brass, and pronounced the plainer rings to be coffin handles.

The State Prehistoric Museum of Berlin was immediately notified of the discovery, and Dr. Marschallck has directed wider excavation of the site to see whether a burial was once there. Not finding one, it is concluded that the owner of the gold hid his treasure, perhaps from an enemy. The rings are of pure gold, weighing together 865 grains. They thus constitute one of the most important gold finds in recent years in Germany.

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CE FIELDS

MEDICINE

British Journal Praises Dillinger Physician

DOCTOR Clayton May of Minneapolis is praised by the editor of *The Lancet*, British medical journal, for not informing the police of the whereabouts of the escaped Indiana convict, John Dillinger, when the latter came to Dr. May as a patient.

Dr. May was fined and sentenced to prison for this act, and an appeal is now pending.

The editorial in *The Lancet* contends that there was only one question for Dr. May: "Did Dillinger come to him trusting in professional honor?"

The answer is obvious, this medical journal states. Dr. May's colleagues in every country, the editorial contends, will applaud his action in not betraying his professional trust.

Science News Letter, June 16, 1934

ENGINEERING

Diamonds and Carboloy Combined in Cutting Tools

CARBOLOY, hardest metallic substance, and diamond, hardest of all substances, have been brought together to form an improved combination for cutting tools, grinding wheels, and any other process which requires sharp, lasting edges.

A method has been found of burying chips of diamond in carboloy which has greatly increased the demand for the small and imperfect stones that used to be of little cash value.

Carboloy itself, a substance composed of tungsten carbide, a compound of tungsten and carbon, and cobalt, a metal like nickel, since its invention in 1928 has been used as an abrasive because of its extreme hardness.

It has been found that by mixing it in its powdered form with fragments of diamond and heating to a temperature below the melting point of the metallic substance and safely below the temperature at which diamond turns to graphite, the two join together. The diamonds are bedded so tightly in the matrix of

carboloy that they cannot be loosened when the new substance is used in drills or grinding wheels.

The use of diamonds as a machine shop abrasive and in drilling tools seems fantastic, but, it is pointed out by George F. Taylor, research physicist in the General Electric Laboratories at Schenectady in charge of the work on carboloy, over \$4,000,000 worth of commercial diamonds are used by industry yearly.

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EUGENICS

Morals More Important Than Intelligence

OUR vaunted intelligence is not so important in keeping the human race alive, after all. At least, so we are told by a physician who looks at the matter biologically.

This physician, Dr. C. G. Campbell of New York, has weighed and appraised the importance of four psychological factors so far as human survival is concerned. What his verdict is, he announced before a scientific group especially interested in the problem of human destinies, the Eugenics Research Association.

The four psychological factors which are important to the survival of races of man are named by Dr. Campbell as — listing them alphabetically — intelligence, moral, religious, and temperamental factors. How would you arrange them in importance?

We set such store by superior brains, in our modern civilization, that Dr. Campbell believes there would be a general inclination to put intelligence first. But his own conclusion is that moral traits are far more valuable biologically than intelligence. The powerful moral drives and urges in a man are back of his sense of duty and obligation to his fellow men. Moral traits impel individuals to fulfill their obligations to their racial group, and thus help safeguard its survival.

"Close upon the moral factor follows the religious factor," as Dr. Campbell continues his ranking.

Both moral and religious factors go to support those temperamental qualities in individuals that will be helpful to the survival of their racial groups.

And intelligence? Dr. Campbell says: "Last of all intelligence goes to secure and to augment the best results of these other factors."

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FORESTRY

Fungus Disease Menaces New England Beech Trees

THE AMERICAN beech may follow the way of the chestnut and succumb to an imported disease, warns Dr. R. Kent Beattie of the U. S. Department of Agriculture.

The new disease, Dr. Beattie states, was introduced from Europe and has already killed off more than a third of the beech trees of Nova Scotia and many in New Brunswick. The fungus that causes it is abetted by an insect working in partnership.

In the United States, the malady has already been found killing trees in Maine, warns Dr. Beattie. The insect, known as the felted beech scale, occurs not only in Maine, but also in New Hampshire and Massachusetts. The disease has not been reported yet from these last two states.

According to Dr. Beattie, control or eradication measures must for the time being wait on further studies.

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DENTISTRY

Radio is Latest Aid To "Painless" Dentistry

AN APPLICATION of Dr. Hugo Lieber's discoveries on the bone conduction of sound, has been adapted for use in dentistry to counter-balance the painful effects of drilling, by Dr. Edward Drosen, a Milwaukee dentist.

Dr. Drosen asserted that by clamping a radio earphone, which is connected to a fairly high-powered radio, onto the forehead or onto the mastoid bone back of the ear of a patient, the unpleasantness of a dentist's drilling activities is largely removed.

The radio earphone plates vibrate musically and communicate this vibration to the bones of the head, and the rhythmic vibration so afforded serves as a counter-agent for the vibration which results from the dentist's drill, Dr. Drosen said.

This latest device, together with "topical" or surface anesthesia and nerve blocking anesthesia, makes possible almost completely "painless dentistry," Dr. Drosen asserted.

Dr. Lieber is well known for his studies on bone conduction of sound and the application of this to aids for the hard-of-hearing.

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