

## DENTISTRY

**Gritting Teeth in Sleep Can Injure Gums**

► IF YOU clench, grit or bite your teeth while you are asleep, you may injure the gums and other tissues supporting the teeth, Drs. Oliver C. Applegate and Roland O. Nissle of the University of Michigan declared at the meeting in Atlantic City, N. J., of the American Dental Association.

Most people put the greatest pressure on their teeth while asleep, the Michigan dentistry professors found. The force applied while eating on the other hand is intermittent for short periods, and is both stimulating and beneficial, they stated.

Patients having some of their teeth replaced by false ones (partial dentures) should wear a special wax rim in their mouths during sleep, Drs. Applegate and Nissle advised.

The appliance will have been completed except for installation of the teeth and thus the wax rim will be supported securely, they said. The wax will record the points of greatest stress and the teeth can be adjusted from this pattern to eliminate the stresses.

Science News Letter, November 11, 1950

## PSYCHOLOGY

**Cue to Marital Happiness: Follow Own Ideals of Role**

► A HAPPY husband probably has a wife who is unhappy.

This is the surprising finding of Dr. Robert S. Ort, of Wabash College, from a study of 100 married students or student's wives. Half the subjects were husbands, half wives.

Your happiness in marriage depends, Dr. Ort found, on the extent to which you live up to your own ideas of your role as husband or wife. It also depends on the way your mate lives up to what you think is his or her part.

Here are some other of Dr. Ort's findings:

Husbands are less happy than their wives. And husbands report more difference between their ideals and actuality in their marriages.

Chief source of disappointment of husbands in themselves is in not keeping themselves as clean and tidy as they did during courtship. They also feel guilty about not getting little surprise gifts as tokens of affection for their wives and about not laying down the paper to express affection at their wives' approach.

Chief disappointment of husbands in their wives lies in the fact that the wife does not make love to him at least half the time, as he thinks she should.

Both husbands and wives are more disappointed in themselves than in their mates.

No significant difference was found be-

tween happy couples and unhappy couples in either their expectations or the roles they actually play.

Happy and unhappy couples do differ in the way they go about resolving their differences. A large proportion of happy couples solve their problems by talking them over; only 15% resort to aggression or avoidance.

In general, the couples interviewed consider themselves happy; 42% rated themselves as being as happy as anyone they knew.

Details of Dr. Ort's study are reported in the JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY (Oct.).

Science News Letter, November 11, 1950

## ZOOLOGY

**"Miracle Drugs" Increase Fertility of Bulls**

► IN a new miracle of the "miracle drugs," two antibiotics, penicillin and streptomycin, have markedly increased the fertility of semen from five low-fertility bulls at Pennsylvania State College.

The discovery may make these drugs important new tools in the growing artificial insemination practice of the U. S. cattle industry.

Treatments with penicillin, streptomycin or a combination of the two brought "highly significant" increases in the fertility of semen solutions, it was revealed in the annual report of the Agricultural Experiment Station at State College.

Experiments with aureomycin, newest of the antibiotics, are now in progress. Preliminary results indicate that this drug, however, is more toxic to bull spermatozoa than penicillin and streptomycin.

Science News Letter, November 11, 1950

## MEDICINE

**Light Flashes Lead to Brain Tumor Location**

► A NEW machine to help doctors locate brain tumors and follow thyroid conditions under treatment with radioactive iodine was shown at the joint conference in New York of the American Institute of Electrical Engineers and Institute of Radio Engineers.

Instead of using a Geiger counter to detect radioactive chemicals injected into the body for diagnostic purposes, the new machine uses a scintillation counter. Tiny flashes of light, instead of the more familiar clicking sounds, signal the radioactivity. A special electronic circuit counts the flashes.

The new machine, developed by the Nuclear Instrument and Chemical Corporation of Chicago, is a compact instrument packaged in a unit to be "plugged in and immediately provide diagnostic answers." It was developed from a more elaborate research unit designed for Northwestern University Medical School.

Science News Letter, November 11, 1950

**IN SCIENCE**

## ICHTHYOLOGY

**Fish Are Noisy In Narragansett Bay**

► THE FISH in Narragansett Bay are a noisy lot. That is the conclusion three scientists reported recently to the Acoustical Society of America meeting in Boston.

Drs. Alton S. Kelsey, Jr., and R. T. Beyer of Brown University, Providence, and Marie P. Fish, Narragansett Marine Laboratory, made recordings of the sounds made by various fish in the Bay area. Of the 25 species they studied, six made significant amounts of noise.

These were the red-winged and common sea robin, the toad-fish, the long-horned sculpin, the puffer and the burrfish.

Science News Letter, November 11, 1950

## GENETICS-DENTISTRY

**Heredity Factor in Causing Buck Teeth**

► A DENTAL pattern running through some families, rather than thumbsucking, is the cause of buck teeth and other kinds of poor alignment of the teeth, in the opinion of three University of Pennsylvania scientists.

The scientists, Drs. John W. Ross, Wilton M. Krogman and Moe B. Markus, reported their studies of hundreds of cases of malposition of teeth at the meeting in Atlantic City of the American Dental Association.

In all the cases studied they found only one in which they thought thumbsucking contributed to the poor position of the teeth.

"Today, we believe that habits are only an associated condition and the most that can be ascribed to them is that they may cause an exaggeration of the original pattern of occlusion (meeting of the upper and lower teeth)," Dr. Ross stated.

"It must be remembered that the genetic background, the inheritance, determines the pattern."

"While environment may prevent the child from developing this predetermined pattern, orthodontic treatment (correction of irregularities of the teeth) cannot exceed it, in fact, it probably can only approach it."

The least possible treatment should be given to effect desired changes, he said.

If an appliance is to be used to correct irregularities, it should be of the type which allows the teeth to function to the greatest degree according to their normal relationships.

Science News Letter, November 11, 1950

# E FIELDS

## GENETICS

### Contact with One Polio Virus Common for Child

► GETTING infected with one of the three known strains of polio virus, called Lansing, seems to be a common accompaniment of normal childhood development, Dr. Thomas B. Turner of Johns Hopkins University told members of the American Public Health Association meeting in St. Louis.

The child comes in contact with this particular polio virus about as often as he comes in contact with other childhood diseases.

These are among the findings of a study of almost a thousand residents of Baltimore, about 90% of them children under 15 years, made by Dr. Turner and the following associates: David H. Hollander, Sonia Buckley, U. Pentti Kokko and Dr. Charles P. Winsor. The study was started in 1941, interrupted by the war and resumed late in 1946.

The findings are based on blood tests showing presence or absence of antibodies to the Lansing polio virus. At least two other types of polio virus exist, and there is some evidence to indicate that the Lansing type accounts for only a small fraction of the polio infection that shows up as sickness.

With rare exceptions, the Hopkins scientists found, the process of acquiring naturally antibodies to Lansing polio during childhood was free of symptoms of sickness. Once acquired, the antibodies tended to last for an indefinite time. This might be due to the booster effects of repeated contacts with the virus.

Most babies have Lansing strain antibodies which they get from the mother's body before birth. The antibodies are lost in about 90% of children within one year of birth. Then they start acquiring them again.

Lansing virus infection, the scientists reported, is influenced by seasonal factors. It comes to a sharp peak in late summer and early fall, whether it shows up as sickness or not. The reason for this seasonal distribution, however, is not known.

Science News Letter, November 11, 1950

## MEDICINE

### Fuzzy Mice Bred For First Time

► A STRAIN of fuzzy mice has been bred and established for the first time at the Roscoe B. Jackson Memorial Laboratory in Bar Harbor, Me.

The importance of the "Fuzzy" mutation is explained by Miss Margaret M. Dickie, research associate of the Laboratory, as

follows: For the first time all four types of hair common to normal coats and other curly coated animals do not occur in the fuzzy mouse's coat. Only zigzag hairs or derivations of these are present.

The fuzzy mice have soft, sparse hair not unlike the down of a newly hatched chick, Miss Dickie and Dr. George W. Woolley, formerly with the Laboratory and now at Sloan-Kettering Institute, New York, say in their description of the new mice in their report to the JOURNAL OF HEREDITY (July).

The new mice join the waved, Caracul, Rex, "naked," bald and rhinoceros breeds of mice at this famous genetics and cancer research laboratory.

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## MEDICINE

### Cortisone in Action Seen Through Rabbit Ear Window

► THE ACTION of cortisone, famous anti-arthritis chemical, on another ailment, serum sickness, can be seen through a rabbit ear window, Drs. Robert H. Ebert and Robert W. Wissler of the University of Chicago reported to the Central Society for Clinical Research in Chicago.

The rabbit ear window, or chamber, is a transparent, two-piece plastic device about the size of a half dollar. It clips over a rabbit's ear, letting doctors see through the thin tissues, with skin cut away. The rabbit is neither harmed nor hampered by the device which gives the scientists a view of minute changes as they occur in disease.

Serum sickness sometimes afflicts humans as a result of proteins in serums used in immunizing "shots" for disease prevention. Through the rabbit ear window, scientists could see changes when this condition occurred in rabbits. White blood cells stuck to the sides of the tiny blood vessels. The cells lining the blood vessels swelled. Sometimes blood clots plugged the vessels.

In rabbits treated with cortisone, these damaging reactions were remarkably reduced.

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## DENTISTRY

### False Teeth Get Loose When You Lose Weight

► STORE teeth, like clothes, lose their fit if the wearer gains or loses weight, Comdr. Frank Myers Kyes of the U. S. Naval Dental School, Bethesda, Md., pointed out at the meeting of the American Dental Association in Atlantic City.

"When a patient loses 15 pounds of weight, he is not surprised to notice his trousers do not fit," Comdr. Kyes said. "Generally, his dentist has to tell him that his dentures will be affected similarly."

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## AERONAUTICS

### Plane Distress Signals At Flip of Switch

► A FLIP of a switch by the pilot of an airplane in distress will automatically turn the craft's radio transmitter to sending out a series of SOS's and radio signals in a device developed in Dayton, Ohio, at the Wright-Patterson Air Force Base.

It is a time-saver and maybe a life-saver. With it, when a pilot realizes that his plane is in danger, no time is lost making radio contact with the ground and he can devote his entire energy to making a crash or forced landing. The radio signals automatically sent when the switch is flipped will aid ground direction equipment to locate the plane.

Designed for use with any present standard airborne communication transmitter, the keyer is slated for installation in most aircraft of the Air Force.

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## MEDICINE

### New Drug Fights Ringworm And Athlete's Foot

► A NEW chemical remedy which is reported to give "quite impressive results" in treating ringworm of the scalp in children, athlete's foot and other fungus infections of the skin, was announced at a meeting of the New York Academy of Sciences in New York.

The new drug is called "Asterol." It belongs to the class of chemicals called benzothiazoles. The general anti-fungus power of these chemicals led Dr. Norbert Steiger of the Hoffmann-La Roche Company, Nutley, N. J., to put together the compound called Asterol for short. Chemically, it is 2-dimethylamino-6-B-diethylaminoethoxybenzothiazole.

Although possessing quite high anti-fungus activity, the new chemical has a low toxicity and is entirely without skin-irritating effect, tests have shown.

Results of use of Asterol for ringworm of the scalp in children and athlete's foot were reported by Dr. Frederick Reiss of New York University-Bellevue Medical Center, New York, and Dr. Conrad Stritzler and associates of Queens General Hospital, Jamaica, N. Y.

Asterol will not be available for commercial sale until the early spring of 1951 because of the need for additional manufacturing facilities.

The team of Hoffmann-La Roche which reported to the membership of the New York Academy of Sciences on the new ringworm and athlete's foot drug treatment consisted of Drs. E. Grunberg, G. Soo-Hoo, E. Titsworth, D. Ressetar and R. J. Schnitzer. Dr. Grunberg described the laboratory studies leading to the discovery of Asterol.

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