

drum. This money is an insurance fund. Any member of the drum lodge who is sick or in need can draw upon the fund with the consent of the others.

Some of the Indians say that the drum religion was started by an inspired prophetess of the Sioux tribe, about fifty years ago. This prophetess told her people to put away their small drums they used, and to stop their war dances and pipe dances, and to dance only the new dance which the spirits had taught her. She taught the people how to make a big drum, big enough to keep away the bad spirit.

Miss Densmore made scientific records of the songs used in the drum ceremonies, and also songs of the medicine lodge, the rival of the drum religion among the Menominee.

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#### ORNITHOLOGY

### Florida Noddy Terns Change Nesting Habits

**"TOUCHING WOOD,"** a potent magic ritual in children's games, seems to be a necessity in the family of the noddy tern of Florida. At least, this would seem to be indicated by observations made recently on Bird Key, celebrated Florida rookery, by Dr. Paul Bartsch of the Smithsonian Institution.

The noddy tern colony on this island had long nested in the branches of the bay-cedar trees, building loose, rather crude nests of sticks, sometimes lined with shells and coral. During the past few years, however, practically the whole tree and bush vegetation of the island has been swept away by hurricanes, and the birds were confronted with the choice between migrating to a new nesting ground where trees still grew, or remaining where they were and adapting their habits to nesting on the ground.

They elected the latter course. But the old instinct for a wooden nest has stuck with them, and Dr. Bartsch reports that they still gather sticks and assemble them into the semblance of nests on the ground. Sometimes they lay their eggs on pieces of bare board. Anything seems to be satisfactory, so long as it is wood.

The noddies are stout defenders of their homes, Dr. Bartsch states, attacking all comers who approach their nests, regardless of size or formidability.

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Ten miles up, air is cooler over the equator than over temperate zones.

#### MEDICINE

## Whooping Cough Relieved By Inhaling Carbon Dioxide

**I**NHALING carbon dioxide, diluted in air or oxygen, has been helpful in relieving the paroxysmal or whooping stage of whooping cough, Prof. Yandell Henderson of Yale University has just reported to the American Medical Association.

The treatment was successfully given to ten children, ranging between nine months and seven years of age. In all of them after three or four days of inhalation the paroxysms were considerably lessened in severity and frequency and by the eighth day the coughing became so infrequent that the treatments could be stopped.

A mixture containing between six and seven per cent. of carbon dioxide in air or a mixture of seven per cent. carbon dioxide and 93 per cent. oxygen was used. The mixture was inhaled through a mask attached to a standard anesthesia machine. A small tent having a capacity of about one cubic foot was used for some children who did not like the mask. The tent apparatus was left in the home and used by the nurse or mother.

#### FORESTRY

## Better Trees Being Bred For Future Forest Crops

**P**INES and walnut trees are being bred like corn or wheat, to be the crops on forest land in the coming days when forests will have to be raised as grain is raised now. Progress in this work was described by Lloyd Austin, director of the Institute of Forest Genetics at Placerville, Calif., speaking before the Sixth International Congress of Genetics.

In their endeavors to get new, faster-growing and otherwise more desirable kinds of pines, the workers at the Institute have resorted to hybridization. This requires the bagging of the cone-forming flowers after they have been pollinated to keep alien pollens borne by the wind from getting in and mess-

The child inhales the gas mixture for ten or fifteen minutes twice a day either just before a meal or two hours after the last meal. If the child starts to have a paroxysm of coughing at the moment the mask is put over his face, it is best to wait until the spell is over before giving the treatment, Prof. Henderson advised.

The use of carbon dioxide inhalations for whooping cough grew out of the similar treatment found successful for treating certain stages of pneumonia and for other lung diseases in infants. In whooping cough the idea is not only to prevent the development of pneumonia but to lessen the whooping stage.

Pneumonia after whooping cough probably comes from the obstruction of the bronchi or bronchioles by mucus, Prof. Henderson explained. The cough and whoop are due to irritation by clinging particles of mucus. Clearing the lungs by deep breathing should not only prevent pneumonia but also have the immediate advantage of diminishing the paroxysms of coughing.

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ing up the results. Since the pine flowers are borne on high, wind-tossed parts of the trees, it has been necessary to devise especially strong bags for this work. These have been fitted with unbreakable transparent windows, so that the progress of the young cones can be watched.

Another technique which has been developed is the bud-grafting of pine trees, hitherto not considered practicable. It is hoped that this can be used in the propagation of especially desirable varieties of hybrid pines, which would not breed true from seed.

Tree seeds may be chosen from selected individuals in the future, instead of being taken wholesale from all the

individuals in a group. The desirability of doing this is indicated by results of "progeny tests" made on a large number of pines, in selected spots in twelve states and British Columbia. A wide variation was found in the growth vigor of seedling offspring of different trees.

There appears to be a falling off in vigor in seedlings of trees growing at high altitudes. However, Mr. Austin reported two trees growing high in the mountains whose seedlings showed great vigor of growth. Since high-altitude trees must needs be hardy, he suggested that these two parent trees may become the founders of tree "families" notable for both hardiness and vigor.

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**PUBLIC HEALTH**

**Experts To Investigate Leprosy in Hawaii**

**W**HETHER or not the federal government should establish a leper colony in Hawaii similar to the one at Carville, La., will be determined as a result of investigations now being made in Hawaii by three experts of the U. S. Public Health Service. Dr. J. C. Perry, Dr. J. W. Kerr and Dr. G. W. McCoy have been instructed by Surgeon General Hugh S. Cumming to study the situation in Hawaii.

The U. S. Public Health Service, in cooperation with the Territorial Government, has since 1905 been operating a station for scientific study of leprosy at Kalihi, T. H. In the course of these studies, many of which have been on the effectiveness of various derivatives of chaulmoogra oil for treatment of the disease, active cases of leprosy are actually treated. However, the station is not able to treat all lepers who may apply, as is done free of charge for lepers in the United States at the colony at Carville. The famous Hawaiian leper hospital at Molakai is less a treatment center and more a custodial home, the U. S. Public Health Service explained.

There is so much leprosy in Hawaii that life is said to revolve around the disease and its problems. Almost every family is affected. The disease is mixed up with the social and political life of the country, and is a normal part of the life of all Hawaiians. Consequently the three federal health officers have a big task ahead to make a real study of the situation and have their report ready by December first when Congress convenes.

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