

MEDICINE

Rh Factor-Deafness Linked

► DISCOVERY that the Rh blood factor is linked with congenital deafness is announced by three University of Pennsylvania medical scientists in Philadelphia, Pa.

The scientists are Drs. Harry P. Schenck, Joseph Sateloff and Neva M. Abelson.

"The Rh factor is one of the main causes, if not entirely the main cause, of the hearing defects" in children with cerebral palsy is the "apparently inevitable conclusion" of the studies made at the University Hospital.

Whether children born with hearing defects and speech irregularities, but without cerebral palsy, also owe their deafness to Rh trouble is now under investigation at the University Hospital and Children's Hospital.

Starting point for the studies came partly from findings of Dr. Winthrop M. Phelps of Baltimore. He had observed that a large percentage of children with cerebral palsy have a "singular type of nerve-hearing impairment" involving functioning of the auditory (hearing) nerve. Hearing experts at the University had long suspected a connection between congenital hearing defects and the Rh factor.

Dr. Phelps sent a group of about 50 cerebral palsy children from the New Jersey Crippled Children Commission to University Hospital for study. The children all had the athetoid type of cerebral palsy, characterized by recurring series of slow, wormlike movements of hands and feet. This type of the condition is believed due chiefly to a brain injury. Many of the children had hearing defects of one kind or another and also speech disorders such as inability to pronounce certain letters of the alphabet or combinations of letters.

Rh blood tests were made on all the cerebral palsy patients and on their parents. About 87% of normal persons have the Rh factor in their blood, and are known as Rh positives. The remaining 13% lack the factor and are known as Rh negatives. When an Rh negative woman marries a man with Rh positive blood, the unborn child's Rh positive blood calls up antibodies to it in the mother's blood. This may endanger both mother and child. If the baby survives, it may be sickly and have bodily defects. Deafness, according to the present studies, may be one such defect.

Science News Letter, December 17, 1949

MEDICINE

Plastics In Body Danger

► A WARNING of possible danger from use of two plastic materials, cellophane and polyethylene films, within the body for spare parts or in plastic operations was sounded by three physicians from Columbia University, New York, at the meeting of the American Medical Association in Washington, D. C.

They wrapped cellophane around the kidneys of white rats and embedded the material in the abdominal walls of other rats. Cancers developed in 35% of the animals that survived the minimum time for induced tumors to appear. The tumors, or cancers, were mostly fibrosarcomas. Less than one percent of rats develop this type of cancer spontaneously.

Polythene, trade-name for polyethylene, embedded under the skin of white rats was followed by development of sarcomas in 11.4% of the animals that survived the 392 days which is the minimum time for appearance of induced tumors.

Cellophane and polyethylene films, the Columbia scientists pointed out, have been used in human surgery experimentally to replace the membrane covering the brain, and for tendon transplantations, connecting cut nerves, in artery surgery and in plastic operations on joints.

No cases of cancer have so far been re-

ported from use of these materials in humans, they stated.

The scientists reporting this study were Drs. B. S. Oppenheimer, E. T. Oppenheimer and A. P. Stout.

Science News Letter, December 17, 1949

ZOOLOGY

Hawaiian Lobsters Are Not Emigrants from U. S.

► HAWAIIAN crabs, lobsters and other marine crustacea in the mid-Pacific area did not migrate from the west coast of the United States as had previously been supposed.

Dr. Gordon Ball, University of California at Los Angeles protozoologist, says that gregarine parasites (microscopic protozoa that make their home in the bodies of crustaceans on both the east and west coast of North America) do not exist among the Hawaiian crabs.

The presence or absence of these parasites is one method of tracing the origin of species of crustaceans. The gregarines are passed on from generation to generation. Their development in crabs and lobsters helped tell the story of the development of their hosts.

Whether the Hawaiian crustaceans migrated from farther east in the Pacific, perhaps from the Asiatic mainland, or represent a unique island fauna is not known at present. At least it is fairly certain that they did not migrate from the United States, points out Dr. Ball.

The U. C. L. A. zoologist also has made studies of crabs around Bermuda. He found that parasites in these crustaceans greatly resembled those in California crabs.

How they made this journey before the Panama Canal was built, he refused to hazard a guess.

Science News Letter, December 17, 1949

GENERAL SCIENCE

Reasonable Precautions Will Make Xmas Safe

► A MERRY Christmas with a sorrowful ending from fire and accidents with toys can be prevented by reasonable precautions easily taken, the nation is being warned by several organizations.

The Christmas tree is a number one fire hazard. Trees can be made less flammable by the use of fire-retardant coatings. The most practical, satisfactory and convenient method for reducing the danger of fire, however, is to keep Christmas trees standing in water, the U. S. Forest Products Laboratory states.

And even if the trees are coated with fire-retardant preparations, they should still be kept in water, this government agency declares. The water not only makes them less flammable but also prevents the needles from discoloring and falling.

Use a tree that has been cut as recently as possible, the laboratory advises. Cut off the end of the trunk diagonally at least one inch above the original cut end. Stand the tree at once in a container of water and keep the water level above the cut during the entire time it is in the house.

Before a string of electric lights is put in the tree, it should be carefully examined and tested to make certain that the insulation is in perfect condition. It is important also to test all electrical toys before they are given to children to use. The electric shock from a bad connection or poor insulation might be minor as far as its intensity is concerned, but a shock harmless to an adult might prove serious for a child.

Non-electrical toys may also be dangerous, the National Society for the Prevention of Blindness declares. "Look for the toys that provide fun without danger," it advises. A box of tools can be an educational device or a menace to eyesight, depending upon the ability of the youngster to handle tools.

Look for rounded corners and blunt points on toys, and be sure the toy is well-built and will not break up into jagged pieces, the Society adds.

Science News Letter, December 17, 1949