

MEDICINE

Mimic Curare Effect

► **THREE SYNTHETIC** chemicals, designed to mimic some effects of the old South American arrow poison, curare, will soon be available to help patients undergoing surgical operations.

In the more distant future, patients paralyzed because something has gone wrong with their muscle-nerve mechanism may benefit from research with these and related chemicals reported at the meeting of the New York Academy of Sciences in New York.

The new chemicals are named by their manufacturers Flaxedil, Syncurine and Mytolon. They differ from each other in chemistry and to some extent in their effects on the human body. But all of them are able to relax muscles.

It is this muscle-relaxing power which makes the various curare compounds and the synthetic chemicals useful for patients undergoing surgical operations. Less anesthetic is needed when the curare chemicals are used.

"In anesthesia there is no longer any question as to whether curare is useful, but rather whether particular anesthetic

agents or other curare-like drugs have added advantages," Dr. A. Dale Console, associate director of E. R. Squibb and Sons, New York, declared.

From the relaxation it produces in operations on the abdomen, its use has been extended, he pointed out, to operations on the chest and lungs, orthopedic manipulations such as setting broken bones and reducing dislocated joints, eye surgery and childbirth. It has been useful for controlling hiccoughs, among other conditions. One big use for it has been to prevent broken bones and dislocations in psychiatric patients undergoing shock and convulsive treatment.

While curare and the curare-like chemicals block the transmission of nerve impulses to muscles, some of them do it in different ways. Further study of these drugs, in the opinion of Dr. Edwin J. DeBeer and associates of the Wellcome Research Laboratories, Tuckahoe, N. Y., "may throw further light on the fundamental processes involved in the transmission of impulses from nerve to muscle."

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ASTRONOMY

Newest Known Moon

► **THE NEWEST** known moon in the solar system follows such an elongated path around the distant planet Neptune that sometimes it is only 1,000,000 miles from its parent planet, sometimes it is 6,000,000 miles away, Dr. G. Van Biesbroeck of Yerkes Observatory of the University of Chicago told members of the American Astronomical Society meeting in Washington.

Nereid, as this satellite is called, takes almost a year to travel around Neptune. Its path is shaped like a fat cigar, three times as long as it is wide, with Neptune near one end.

"No other satellite has anywhere near such a high eccentricity," Dr. Van Biesbroeck pointed out.

Triton, Neptune's other satellite, follows a circular path and stays about 220,000 miles from the planet. It takes five days 21 hours to circle Neptune, as compared with 359 days almost 10 hours for Nereid to complete its journey.

Strangely enough, Triton and Nereid circle Neptune in opposite directions. Nereid moves in the direction in which its planet and others in the solar system rotate, but not Triton.

Triton is a little larger and heavier than the earth's moon. Dr. Van Biesbroeck calculates that Nereid is only one-fourteenth as massive as our moon.

Triton has been known for over a hundred years, but Nereid was not discovered until about two years ago. It was spotted by Dr. Gerard P. Kuiper, also of Yerkes Observatory, who the preceding year had located a fifth moon for the planet Uranus. Dr. Kuiper's latest find brought to 30 the number of moons known to exist in the entire solar system.

The faint satellite Nereid, of 19th magnitude, was picked up with the 82-inch reflecting telescope of McDonald Observatory of the University of Texas, the observatory being operated by Yerkes astronomers. To date the satellite has been photographed on 19 nights, states Dr. Van Biesbroeck who with the same telescope has tried to observe Nereid whenever opportunity offered.

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NATURAL RESOURCES

Plants Adapted to Dry Land Make Deserts Useful

► **THE WESTERN** deserts of America could be made fruitful without the cost and work of irrigation. Scientific breeding and mechanical harvesting of plants already adapted to burning suns, drying winds and infrequent rainfall, could turn deserts to man's use, Dr. Raymond B. Cowles, pro-

fessor of zoology at the University of California at Los Angeles, suggests.

In years past many thousands of Indians were able to live in the deserts of the West because they were familiar with the native food-producing plants, he observes.

Dr. Cowles lists these food-producing plants which might be standardized by breeding and adapted to ordinary harvesting machines: dropseed grain used by the Indians, a variety of mint called chia, and bunch grasses for cattle food.

The western deserts also have plants that produce tobacco, natural dyes, strong fibers, aromatic oils, vegetable fats and waxes, insecticides, weed killers, and drugs that might be used in the treatment of human diseases.

In addition to these native plants, Dr. Cowles would import from deserts in other parts of the world those plants that would produce foods or commercially-usable products.

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GENERAL SCIENCE

Patent System Inquiry Is Object of New Foundation

► **AN INQUIRY** into the American patent system and its benefits to our standard of living, industry, research and development has been launched through the formation of the Patent Foundation under the George Washington University in Washington.

Designed to conduct research projects in the broad field of patent policy, law and practice, the newly created body will study patents as invention incentives, corporate patent practices, employment as affected by patents, anti-trust aspects of the patent system and other similar aspects.

Members of the advisory council include: Dr. Joseph W. Barker, president of the Research Corporation; Dr. Vannevar Bush, president of the Carnegie Institution of Washington; Cyrus S. Ching, director of Federal Mediation and Conciliation Service; John W. Davis, attorney; Dr. Charles F. Kettering, General Motors director, and Max McGraw, president of McGraw Electric Co.

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