

## MEDICINE

# Asthma Drugs Promising

Two new drugs that can be taken by mouth to relieve asthma will soon be tested on patients. Three new drugs hold promise of relieving palsy in old people.

► TWO new anti-asthma drugs are very soon going out to doctors for experimental testing on patients. If successful, they will be the first drugs that can be given by mouth to dilate the bronchial tubes and thus give relief to asthma sufferers.

The drugs are so new they do not even have names yet. Their existence was revealed when Dr. Edwin J. Fellows, head of the pharmacology section of Smith, Kline and French Laboratories in Philadelphia, showed doctors attending an SKF-sponsored medical research conference on old age how the drugs are being tested on guinea pigs.

The drugs belong to the chemical group known as alkyl aryl amines. Guinea pigs in the test are first given two chemicals, histamine and one with acetylcholine-like action, to induce in the pigs the kind of breathing difficulty asthma patients have. Dr. Fellows emphasized that his group is not looking for a drug with anti-histamine action only. A number of such drugs, for example benadryl and pyribenzamine, have been developed, but have not been entirely successful in asthma, though useful in other conditions.

The pigs are timed in the morning to see how long it takes for them to develop breathing difficulty under the histamine and acetylcholine-like chemicals. In the afternoon they are given pretreatment with one of the new anti-asthma chemicals. Then they are again clocked to see how long it takes before the histamine and acetylcholine-like chemicals bring on breathing trouble. These last two chemicals are sprayed into the pigs' cages through a very fine atomizer.

Results so far have made Dr. Fellows quite enthusiastic about the new anti-asthma drugs.

The promise of relieving paralysis agitans, the distressing palsy of old people, shown by three new drugs gives hope that other drugs can be developed to relieve other characteristic infirmities of age, Dr. Chauncey D. Leake, of the University of Texas medical branch at Galveston, declared at the meeting.

The three drugs are: 1. myanesin, or tolserol; 2. parpanit; 3. phenothiazine compounds. Still another group of chemicals, called benzimidzols, have also been proposed for this condition. In mentioning these chemicals, Dr. Leake cited reports from several scientists other than himself.

"There is strong possibility that cancer may be prevented or cured," Dr. Leake said in discussing drugs needed for the

chief diseases of old age.

"There does not seem to be the possibility of maintaining the heart, blood vessels and kidneys in effective functioning condition indefinitely. And besides, do any of us want to?" he asked, pointing out that "death

## PSYCHIATRY

# Emotions Affect Eyesight

► EYE disease affecting vision can now be added to stomach ulcers, colitis, asthma and other ailments brought on by emotional disturbances.

"We have numerous case histories of definite organic disease of the eyes and brain which are either caused or complicated by ocular psycho-neurosis," Dr. Henry L. Birge of Hartford, Conn., declared at the fortieth anniversary conference of the National Society for the Prevention of Blindness in New York.

is a part of life and for new life to be possible it is necessary at some time or other to get rid of the encumbrances of old life."

Dr. Leake believes it will be possible to develop drugs which will make old people more comfortable, relieve muscle tension without inducing incoordination or drunkenness, stimulate brain activity without inducing nervousness and keep the digestive system in good order so as to promote the enjoyment of eating.

A four-point program for old age beginning in high school was another of his suggestions for meeting the situation where for the first time in history we have more people over age 35 than under it.

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One such case was that of a night watchman who developed glaucoma immediately after the nervous shock of being struck in the face with flame and smoke from a fire he had discovered. Glaucoma can cause blindness, although early, adequate treatment will save the eyesight in many cases.

Close cooperation is needed between general practitioners, eye specialists and psychiatrists, Dr. Birge emphasized, in order properly to diagnose and treat defective eyesight which may be induced by emotional



*DRUG'S EFFECTS CHARTED—A new electronic apparatus for determining the effects of new drugs on the central nervous system is shown being operated here. The recording of the animals' responses is made on the chart at the left. The device was developed by R. A. McLean of Smith, Kline & French Laboratories.*

disturbances.

Glaucoma is the most serious eye problem of middle age, with cataract next most important, Dr. Edwin B. Dunphy of Boston stated at the meeting. Early symptoms of cataract are often confused with those of glaucoma.

Less serious but "the most annoying and most universal inconvenience of middle

age" is the condition laymen call farsightedness. Presbyopia is the medical name for the condition. In this condition the eye loses some of its ability to accommodate itself to different focal distances and light intensities. The condition, Dr. Dunphy said, is due more to lack of elasticity of the eye lens than to weakness of the muscle which contracts the lens.

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#### BACTERIOLOGY

## Germ Warfare Antidotes

We have ways of defending ourselves against biological warfare, Defense Secretary Forrestal assures, but not against the atom bomb.

➤ YOU NEED not be as afraid of germ warfare as of atom bombs. This conclusion may be drawn from the statements on germ, or biological, warfare by Secretary of Defense James Forrestal and Maj. Gen. Alden H. Waitt, chief of the Army Chemical Corps which carries on our biological warfare research.

Both said that germs or their poisons could be used as military weapons. But both were reassuring in their statements that we have ways of defending ourselves against such weapons. So far, no one has been quite that optimistic about defense against the atom bomb.

"It should be appreciated," Secretary Forrestal said, "that illness induced by biological agents may be counteracted by specific medical measures."

The toxin produced by botulinus germs is probably the most poisonous known substance per unit of weight. This is the stuff an ounce of which would be enough to kill about 200,000,000 people, though practically it would be impossible to spread it in such a way as to get it into that many people. But we have developed a toxoid

that protects against this most poisonous substance.

Anthrax germs produce a substance almost as poisonous as the botulinus toxin. Our biological warfare scientists worked on this problem, too, during the war. They found that penicillin was an effective remedy against one form of anthrax. Whether it will remedy all forms has not yet been reported.

Plague has always been mentioned as a possible germ weapon in war. One of the first reports released by the Navy on its biological warfare activities during the war suggested, without actually stating, that Navy scientists had developed defenses against this disease. Since then, civilian scientists have found a remedy for the disease in streptomycin.

Penicillin and streptomycin, with newer antibiotics such as chloromycetin and aureomycin and various sulfa drugs, give us powerful remedies for a host of germ diseases.

Germ warfare might be waged against animals and plants that man needs for food. In these fields, also, our scientists

built notable defenses. Vaccines were developed against the cattle plague, rinderpest, and against two highly fatal poultry maladies, Newcastle disease and fowl plague.

Less spectacular but important for defense against germ warfare is the development of quick, sure tests for various disease germs. That this has not been neglected may be guessed from Secretary Forrestal's statement that "an important defense against biological warfare lies in the early identification of diseases implanted."

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