

## MEDICINE

# Antihistamines Kill

Overdoses have caused the deaths of eleven persons, eight of them children. Cause may have been accident, suicidal intent or impaired judgment caused by drug.

➤ OVERDOSES of antihistamine drugs have killed 11 persons, eight of them children under two years old, Drs. J. B. Wyn-gaarden of the Massachusetts General Hospital, Boston, and M. H. Seevers of the University of Michigan School of Medicine, Ann Arbor, report. (JOURNAL, AMERICAN MEDICAL ASSOCIATION, Feb. 3).

Convulsions occurred in five and probably in two more of the eight child deaths. The convulsions from overdosage with these drugs start within one-half to two hours. Deaths have occurred in two to 15 hours.

Grown-ups are more likely to develop depression of the central nervous system, rather than convulsions, from overdosage

with these drugs, the doctors find. The depression may be fatal.

A serious blood disease, agranulocytosis, has been reported nine times with one death as a result of these drugs.

The cases of poisoning reviewed by the two doctors resulted, they state, "from accident, ignorance, suicidal intent, impaired judgment caused by the drug itself or iatrogenic causes."

No antidote exists for these drugs. Histamine is not the thing to give, since the poisonous effect of antihistamine drugs is not related to their antihistamine activity in itself. Treatment must be directed toward relieving the symptoms.

Science News Letter, February 10, 1951

## ASTRONOMY

# Solar Outbursts Explained

New theory holds that hisses, swishes and grinding noises are caused by streams of charged particles being slowed down and bunched while still in sun.

➤ A NEW theory to explain sudden outbursts of hisses, swishes and grinding noises from the sun has been prepared by Dr. Hari K. Sen, working at the National Bureau of Standards while on leave from Harvard Observatory, and J. Feinstein of the Bureau.

These signals from the sun are caused by streams of charged particles being slowed down and bunched together while still within the sun, the scientists reason.

These noisy outbursts are normally picked up on ultra-high-frequency radar equipment, but occasionally they are so violent they interfere with television and FM radio broadcasts.

Such solar noise has been found to be of two types. One is a faint and fairly regular background of noise. The sun's outer envelope is believed to generate and broadcast the waves causing this noise.

But the sun also sends out bursts of static thousands of times more noisy and more objectionable than this background noise. These sudden outbursts are so violent that the sun's heat alone is not believed capable of causing them.

Streams of charged particles are already known to move at high speeds within the sun before they escape through the sun's corona or outer envelope, and make their

way to the earth. So Dr. Sen and Mr. Feinstein looked for waves that might be produced by these streams as they raced around the sun. Finally they found waves that grow as they move.

This wave growth results from a two-stage interaction process. As they speed through the sun's atmosphere, the streams are slowed down and bunched together, the Bureau scientists state.

When this motion has the correct phase, the electric field of the wave tends to slow down the bunches of charged particles, converting their kinetic energy of motion into electric energy. This process actually occurs in a continuous fashion as the waves and streams advance.

Thus when the waves leave the sun, they are bunched and clumped together. When they reach the earth, much noise greets those using ultra-high-frequency instruments.

Science News Letter, February 10, 1951

## PHYSICS

## Atomic Piles Yield Luminous Watch Paint

➤ A SELF-LUMINOUS substitute for radium on watchdials and other instruments

could be recovered from the waste from America's atomic reactors that now has to be buried for safe disposal, Dr. F. C. Henriques, Jr., technical director of Tracerlab, Inc., of Boston, has told the American Chemical Society's New York Section.

The radioactive chemical is promethium, unavailable and even unknown until uranium was fissioned as a by-product of A-bomb production. It is produced in relatively large quantities in the atomic "furnaces."

Other promising isotopes now wasted include strontium 90 and cesium 137. Both of these could be used for sterilization purposes, with strontium being applicable to surface sterilization of perishable produce, such as tomatoes.

Isolation and packaging of useful isotopes from atomic waste materials will be dependent upon risking capital and ingenuity of scientists and engineers with cooperation between industry and the Atomic Energy Commission.

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Speed is not the only advantage of the jet-propelled military aircraft; its ability to climb to high altitude is also important.

Many fields of *asparagus* are permitted to grow up in weeds after the cutting season is over; now being used is a cyanamid spray which kills weeds but does not injure the asparagus.

At Saugus, Mass., site of America's first successful *ironworks* which was abandoned in 1688, over three tons of iron relics have been excavated recently, including a 500-pound sledge hammer.

America's *pipelines* for petroleum products have greatly increased in both mileage and capacity in the past 10 years; the total length of such pipelines is now nearly 153,000 miles.

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