

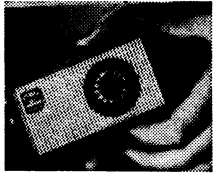
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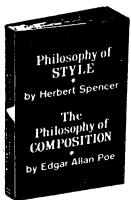
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BIOCHEMISTRY**Arthritics Get Cataracts From Hormone Dosages**

➤ **RHEUMATOID ARTHRITIS** patients and others receiving high dosages of corticosteroids—hormones secreted by the adrenal cortex—can get cataracts.

Thirty-two patients, most of whom had been taking the equivalent of 15 or more milligrams of prednisone for more than two years, developed cataracts, a report in the British Medical Journal, June 22, 1963, states.

All patients receiving such high dosages over a long period were warned by Dr. S. J. Crews, consultant ophthalmologist of the Birmingham and Midland Eye Hospital, England, to have routine checks by their eye doctors.

His study agrees substantially, he said, with U.S. reports suggesting a direct relation between steroid, or hormone, dosage and the occurrence of cataract. Other patients studied as controls, who were not taking corticosteroids, nearly all failed to develop cataracts.

• Science News Letter, 84:14 July 6, 1963

RADIO ASTRONOMY**Radio Telescope Operates With Microwaves**

➤ **THE FIRST** radio telescope in the United States designed to operate with microwaves is now in operation near Austin.

Like all radio telescopes, it works by collecting the radio waves emitted by stars and other astronomical objects, but differs from other such devices in that it uses extremely high-frequency radio waves in the 10,000 to 150,000 megacycle range. These are waves with wavelengths of only a few millimeters.

By using these waves, the telescope is able to perceive much finer details than are other larger radio telescopes, which use waves several meters in wavelength. Under the best conditions, it can be used at frequencies up to 300 billion cycles per second, achieving even greater resolution.

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The device consists of a curved reflector 16 feet in diameter, which can be moved in any direction. It is the first radio telescope to be housed in the type of dome used for optical telescopes. This is done to protect the telescope's highly accurate reflecting surface.

This surface, made of invar, a steel alloy that does not expand or contract significantly with changes in temperature, has been hand-polished to a smoothness of three-thousandths of an inch. It concentrates the incoming waves at its focus, increasing the energy ten million times.

Built by the Philco Corporation and located at the University of Texas' Electrical Engineering Research Laboratory near Austin, the instrument is to be used for basic research and graduate study. It was built with support from the National Aeronautics and Space Administration.

• Science News Letter, 84:14 July 6, 1963

MEDICINE**Two New Drugs Tested For Treatment of Gout**

➤ **TWO NEW** experimental drugs useful in the treatment of gout were reported to the American Rheumatism Association meeting.

Dr. Bernard M. Norcross of Buffalo, N.Y., said in Atlantic City that Indomethacin is effective against inflammation and in reducing fever in the case of gout and related rheumatic diseases.

The drug was tested on 208 patients suffering from acute gout, rheumatoid spondylitis, arthritis and osteoarthritis with resulting reduction of pain and fever, but it also caused a few unwanted side effects. These included severe headaches, nausea, heartburn and sometimes diarrhea.

Dr. James B. Wyngaarden, professor of medicine at Duke University in Durham, N. C., and his colleagues reported on the other drug, hydroxypropylzolidimidine. This drug effectively interferes with the overproduction of uric acid, a primary symptom of gout.

Its effectiveness was discovered while testing it and another drug in the treatment of leukemia. Since then it was favorably tested and adapted as a therapeutic agent for gout.

Neither drug is commercially available.

• Science News Letter, 84:14 July 6, 1963

Do You Know?

A study of skeleton remains reveals that *gout* has troubled mankind for at least 4,000 years.

A person's *feet* sustain a daily load equivalent to nearly two million pounds.

Seat *belts* have their greatest safety potential in city driving.

Today oil and gas supply three-fourths of the mechanical *energy* used in the United States, compared with one-fourth in 1925.

• Science News Letter, 84:14 July 6, 1963