• RADIO

Saturday, Feb. 4, 1956, 2:05-2:15 p.m., EST
"Adventures in Science" with Watson Davis,
director of Science Service, over the CBS Radio
Network. Check your local CBS station.

Dr. Russell L. Cecil, emeritus professor of clinical medicine, Cornell University Medical College, New York, and Dr. Hershel Herzog, organic chemist, Schering Laboratories, Bloomfield, N. J., will discuss "New Drugs for Arthritis."

CARDIOLOGY

Alert Parents to Child Heart Dangers

➤ SPECIAL DANGER to a child's heart threatens in winter when strep. sore throats climb toward their annual peak in numbers.

The strep. infections open the door to rheumatic fever and rheumatic heart attacks. To avoid this, the American Heart Association urges parents to call the doctor if answers to the following questions about a sore throat are "Yes:"

- 1. Did the sore throat come on suddenly?
- 2. Does your youngster complain that his sore throat hurts most when swallowing?
- 3. Does it hurt below the angle of the jaw when you press there gently with your fingers? Are the glands swollen there?
- 4. Does he have a fever of between 101 and 104 degrees?
 - 5. Does your child complain of headache?6. Is he nauseated or has he vomited?
- 7. Has he been in contact with anyone who has had scarlet fever, which is also a streptococcal infection, or a sore throat? Any child who has been exposed to scarlet fever should be seen by a doctor for preventive treatment even if he does not have a sore throat.

Science News Letter, January 28, 1956



TURBOPROP PROP TEST— Checking a Britannia propeller made by de Havilland Propellers Ltd., workmen fit a pitch-change mechanism in the test tunnel at Hatfield, Hertfordshire, England.

DENTISTRY

Fluoride in Toothpaste

➤ DRUGGISTS are now ready to sell an anti-decay toothpaste containing a special kind of tin fluoride.

Called Crest, this is the latest and most hopeful of the many dentifrices, ammoniated, chlorophyll, anti-enzyme and the rest, made to check caries.

Good results with it, promising early arrival on drug store shelves, were announced almost a year ago (See SNL, Feb. 12, 1955, p. 100.)

Like the Salk polio vaccine, however, this promising new toothpaste is reported to have gotten into trouble when a shift was made from small to large scale manufacture.

Dr. Joseph C. Muhler and his group at Indiana University who made the first tests of it were not able to get as good results in later trials. Other dental scientists trying it also had disappointing results.

The fluoride in this newest anti-decay toothpaste is a tin salt in which the tin is in the stannous form. A slight shift in acid balance during manufacture might shift this tin to the stannic form. Then the fluoride does not produce its anti-decay effect.

A way to keep the fluoride in the form of stannous fluoride was found by the manufacturers, Procter and Gamble.

Using this method, they have been able to produce the dentifrice so that it continues to give satisfactory results in trials by dental scientists.

Evidence that stannous fluoride in toothpaste helps check decay comes from trials on children and adults who used it and also from electron microscope pictures of teeth. These pictures show that stannous fluoride changes the surface of the teeth, apparently making them more resistant to decay. The reasons why it does this are not known.

Fluoride, in the form of the sodium salt, is being added to water supplies in many cities and towns because fluoridated water does have an anti-caries action. Children drinking such water during the years of tooth formation have less caries. Grownups do not get any benefit from the fluoridated water.

The Indiana University scientists report, however, that stannous fluoride toothpaste helps protect teeth of grown-ups, too.

Science News Letter, January 28, 1956

NUTRITION

Atom Food Sterilization

➤ FOODS sterilized by atomic radiation may be ready for public consumption sooner than has been generally expected, research reported to the Conference on Radioactive Isotopes in Agriculture held at Michigan State University in East Lansing, Mich., indicates.

Up to now, the chief drawback against "cold sterilization" by irradiation has been the production of off flavors, odors and discoloration in many foods, especially meats and dairy products.

Dr. C. F. Niven Jr. of the University

Dr. C. F. Niven Jr. of the University of Chicago's American Meat Institute Foundation told the conference that use of irradiation at doses below those causing disagreeable side effects appears to lengthen many times the shelf life of refrigerated, prepackaged fresh meats.

Irradiation in lower doses seems to kill or slow down many food-spoiling organisms, although it seems not to cause unwanted chemical changes in the meats resulting in the undesirable qualities, Dr. Niven explained.

Dr. H. W. Schultz, food technologist at Oregon State College, listed milk, cheese, bananas, orange juice and certain cured meat products, such as frankfurters, as "notorious" examples of undesirable flavors when irradiated.

A taste panel gave asparagus, bacon, green beans, beef liver, broccoli, Brussels sprouts, carrots, chicken, codfish cakes, pork

and pork sausage a taste rating of "good," he said.

Although some irradiated meats earned the "good" mark, the panel said they were "different" in flavor from non-irradiated meats. Dr. Schultz said it is not known how this difference in flavor will influence consumer acceptance of the meats.

Tests conducted by the University of Colorado and the Medical Nutrition Laboratory of Fitzsimons Army Hospital indicated no toxic materials are formed during "cold sterilization," Dr. Herman F. Kraybill and M. S. Read told the conference.

In the experiments, rats were fed a diet consisting entirely of nine irradiated foods for nine months. Growth, reproduction and performance of these animals was "quite satisfactory," they reported.

Studies to appraise the wholesomeness of such foods when fed for long periods of time will continue for two years, the scientists said.

Science News Letter, January 28, 1956

Among the nation's 10,000,000 heart disease sufferers are some 500,000 children of school age.

Pigs try to cool off in hot weather by lying quietly for hours at a time and by severely limiting their feed intake; this results in a sharp decline in their growth rate and inefficiency of swine production.