

strictive legislation against cigarettes may come, the journal warns, unless the industry undertakes voluntary policing restriction.

The A. M. A. JOURNAL, like many other medical publications, carries cigarette advertising. This brings in about a dozen protests per year from physicians. On the health aspects of cigarette smoking, the journal says the following:

"Actual surveys indicate that the majority of physicians themselves smoke cigarettes. Extensive scientific studies have proved that smoking in moderation by those for whom tobacco is not specifically contraindicated

does not appreciably shorten life. Post-mortem examinations do not reveal lesions in any number of cases that could be definitely traced to the smoking of cigarettes. From a psychologic point of view, in all probability more can be said in behalf of smoking as a form of escape from tension than against it. Several scientific works have been published that have assembled the evidence for and against smoking, and there does not seem to be any preponderance of evidence that would indicate the abolition of the use of tobacco as a substance contrary to the public health."

Science News Letter, November 6, 1948

## DENTISTRY

## Mouthwash Cuts Decay

► A MOUTHWASH has been devised by a Philadelphia dentist that has reduced dental decay on an average of 75% in a group of his patients.

Formula for this caries-preventive is: 40 grams of sodium alkyl aryl sulfonate, a synthetic detergent; 80 grams of carbamide or urea; one-eighth of an ounce of flavoring; and one grain of color to one gallon of pure water.

Dr. David J. Goodfriend, in a report to the JOURNAL OF THE AMERICAN DENTAL ASSOCIATION (Nov. 1), states that the mouthwash cleans the teeth and penetrates between them where food particles may be lodged, prevents the formation of decay-producing acid in carbohydrate food particles and neutralizes acids that may be formed.

For the home care of the mouth and teeth he recommends that a mouthful of the mouthwash be swished around and between the teeth for one minute after eating and after toothbrushing.

The mouthwash stops bleeding in addition to its preventive action. Dr. Goodfriend points out this is an aid to dental surgical procedures.

"In a manner which I do not understand," he states, "it will stop bleeding without soiling or contaminating the field

as most hemostatic agents do. Held in the mouth for three to five minutes after tooth extraction, it usually completely controls bleeding and leaves an uninjured wound full of clotted blood. Sprayed on bleeding gingivae (gums) during scaling or cavity preparation, it controls the bleeding and cleans the operative field."

Dr. Goodfriend discovered the effectiveness of his mouthwash after treating 186 of his patients who were especially susceptible to tooth decay. They had abnormalities of bite which required that fixed bite overlays be placed on the teeth for from six months to two years. This device collected many particles of food which encouraged dental decay.

For contrast, Dr. Goodfriend compared the 186 patients receiving the mouthwash with a group treated for the same condition without the mouthwash. In the first group the incidence of caries was reduced by 55% to 95%. "In the control group there was such a high incidence of caries that it interfered with treatment of the bite and frequently caused the loss of teeth," he points out.

This work was done under the auspices of the Edward C. Kirk Research Fund of the University of Pennsylvania.

Science News Letter, November 6, 1948

## METEOROLOGY

## Rain-Making with Fire

### See Front Cover

► SILVER IODIDE smoke particles, created by fire in special burners, give promise as tools for artificial snow and rain makers. In this they may replace dry ice and other substances successfully used during the past year.

Artificial snow-making by the dry-ice method is actually two years old but was first a laboratory process. Later snow was made in super-cooled clouds high above the earth by distributing in them finely-divided

solidified carbon dioxide particles from an airplane. The particles become the nuclei of snowflakes.

The experiment has been tried out several times during the past year in various parts of the United States and under various weather conditions. A degree of success was achieved. Other materials besides dry ice have been tried but this is probably the first time that fire has been employed to generate smoke for snow-making.

The dry-ice method of making artificial snow is credited to Dr. Vincent J. Schaefer,

# SCIENCE AT WAR

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