

## DENTISTRY

# Banishing Toothache

Sodium fluoride treatment developed by two Boston dentists is found to provide relief of toothaches due to exposed dentin, a common cause of dental pain.

► BANISHING TOOTHACHE due to exposed dentin, common cause of dental pain, has apparently been achieved by a new sodium fluoride treatment.

Reporting successful experiments to the American Dental Association, Drs. William H. Hoyt and Basil G. Bibby of Boston, declare that "after short treatments, teeth that had caused trouble for years ceased to be sensitive (*Journal American Dental Association*, Sept.). Soon patients were commenting voluntarily on the satisfactory results of the fluoride applications, and requesting treatment of the remaining sensitive teeth."

Use of the chemical was first suggested by Dr. E. H. Lukomsky, of the Stomatological Clinic, First Moscow State Medical Institute, in Moscow, Russia. But the English translation of his report

revealed few details and no results. Taking up the suggestion, the American scientists started research which has now included treatment of a large number of patients, including a well-controlled group of 70.

Of the 70 patients, all had exposed dentin desensitized in at least some of the teeth except for two cases. The case of one failure was complicated by persistent hemorrhage, the other by inflamed pulp.

Results of the research have now been confirmed by a number of dentists who have begun to use the treatment in their practices, the dentists report. Treatment seems equally effective on all types of teeth regardless of the patient's age.

Success achieved in dulling the pain of naturally occurring sensitive dentin, the bone-like main substance of teeth,

led to use of the treatment in relieving pain in sensitive areas caused by preparing cavities for filling. Desensitization was complete within one to five minutes and the filled teeth, which are often sensitive for days, were able to tolerate heat and cold at once.

But the dentists found themselves up against the disadvantage of causing intense pain and a sensation of extreme cold for a short time when the 33% sodium fluoride paste ordinarily used was applied to freshly exposed dentin. The problem was solved by first soaking the cavity with two weak solutions of the chemical before finally applying the pain-killing paste.

"While it is too early yet to assess accurately the value of sodium fluoride in desensitizing dentin," the dentists explain, "the observations recorded seem to demonstrate that should it have no other uses than those already demonstrated, it will have a valuable place in dental practice."

No logical explanation can be offered yet as to why sodium fluoride has this remarkable effect and, since it is a toxic drug, dentists are warned to use the treatment with caution pending further study.

*Science News Letter, August 28, 1943*



"ALLIGATOR"—This amphibious tractor developed for use by the U. S. Marine Corps in landing operations combines the features of a tank and armored landing boat. The dual vehicle protects men and vital equipment in landing on a hostile shore as well as in crossing swampy terrain.

## MEDICINE

## Decline in Rheumatic Fever In England During the War

► ONE GOOD THING the war may bring us, if our experience is like that of our allies in England, is a decline in rheumatic fever. This disease, which usually makes its first attack on children between five and 15 years of age, damages the heart and is a potent cause of death from heart disease among young adults.

This disease has been on the decline in England for some time, Dr. J. Alison Glover, Temporary Medical Officer of the Board of Education, reports in an English medical journal, the *Lancet* (July 10). Since the war, the decline has continued at a somewhat accelerated rate, he finds. In 1939 the crude death rate from rheumatic fever for all ages was 23 per 1,000,000. In 1942 it was barely half that, 12.1 per 1,000,000. The number of patients in hospitals has also been much reduced and doctors believe the severity of the illness is also less.

Dr. Glover suggests three reasons why the war may have put rheumatic fever