

PHYSICS

Sound Washes Clothes

➤ **CLEANER** clothes with shorter hours at the washing machine may be in store for housewives, thanks to sound waves of such high frequency that you cannot hear them.

How sound waves can save hours in washing was disclosed in preliminary reports of experiments conducted by a team of scientists at the Pennsylvania State College.

Cotton fabric was scientifically soiled so that 50 washings by a commercial laundry would remove 90% of the dirt, if the best possible procedures were used. Three commercial laundries washed the cloth for from 50 to more than 58 hours.

Best whiteness produced by the laundries was equal to that obtained in the laboratory after only one hour in a pan of soap and water which was placed above an ultrasonic siren.

In another test, only 80% as much dirt was removed with only soap and water washing in the laboratory for more than 16 hours as was removed by the one-hour "sound wash."

Soap and water were changed only five times during the ultrasonic cleaning, while the laboratory washing had 50 changes. In the commercial laundries, the soap and water went through 50 complete cycles, each consisting of three suds and series of rinses.

First scientific report of the ultrasonic laundry experiments was published in the *JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA* (Jan.) by Drs. H. K. Schilling, I. Rudnick, C. H. Allen, Pauline Beery Mack and Joseph C. Sherrill. They emphasize that they are giving only preliminary findings from early—but successful—experiments.

Science News Letter, February 5, 1949

MEDICINE

Drugs Don't Cure Heartburn

➤ **RX FOR HEARTBURN:** a change in eating habits and "therapeutic discussions." This, in brief, is the prescription found successful by two Philadelphia physicians, Drs. Henry J. Tumen and Edwin M. Cohn of the University of Pennsylvania Graduate School of Medicine and the Jewish Hospital.

Drugs, including antacids, are of little use in treating heartburn, they report in the *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION* (Jan. 29).

Eating too fast, gulping down food, washing it down with large quantities of water (two or three glasses per meal), free use of carbonated drinks and gum chewing

with its constant swallowing and gulping were the bad habits that led to heartburn.

All these practices, the doctors explained, could overstretch the stomach, reverse the normal direction of its food digesting and propelling action, cause air and fluids to be forced back into the food pipe from throat to stomach and consequently increase the activity of this pipe, called the esophagus.

Nervous tension also plays an important part in heartburn. The extremely tense, easily offended, over-critical person who is quick to anger and gets "burnt up easily" is likely to have heartburn, the Philadelphia doctors found. The "therapeutic discus-

sions" helped these people see the relation between their tenseness and the heartburn and to see how to overcome both.

Heartburn is not due to any organic disease of the digestive organs, nor is it due to excessive stomach acidity, the doctors state.

Their findings are based on a study of 120 patients coming consecutively to the office for various digestive disorders. Of this group, 21 men and 25 women had heartburn. All were helped by the discussions and change in eating habits. Patients with more severe personality problems were encouraged to get psychiatric treatment. In three cases this was definitely helpful.

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