

PHYSIOLOGY

War's Roar May Deafen

Jet plane factories and places where heavy metals are worked, or compressed air released, provide a menace to hearing.

► AS THE nation's factories roar into action on defense contracts, that very roar will bring loss of hearing to thousands of workers and potential compensation payments of millions of dollars from employers.

Jet plane factories are particularly noisy, but wherever heavy metals are worked, wherever steel clashes against steel or compressed air under high pressure is released from small apertures, there will be found the problem of industrial deafness.

Hearing research has only recently been turned to this particular problem. It was known to exist almost since the beginning of the industrial revolution, but nobody thought much about doing anything about it. Indeed "weaver's ear" was thought to be a badge of honor, indicating long service at the trade.

Recently, under auspices of the Office of Naval Research, Dr. Douglas E. Wheeler, of the State University of Iowa Hospitals, has been doing research in installations at Mare Island and at Terminal Island in California. He points out that three things are important about factory noise: its intensity, its pitch, and its duration.

The acuteness of the problem is illustrated by one company, a subsidiary of the New York Central Railroad which makes freight cars.

In this case Dr. C. Stewart Nash of Rochester, N. Y., was approached by both the labor union and the company to try to establish a factual basis for compensation claims. In this company alone, it was estimated, claims might run up as high as a million and a half dollars. Company executives stated that if such claims had to be paid on a continuing basis, the shop would be forced to suspend operations.

At present, there is no basis for determining just how much noise, at just what pitch and for just what length of time, is dangerous to the hearing of the average person. Research now is bent on determining that standard.

Researchers also want manufacturing concerns to measure the hearing of new employees who go to work in noisy parts of their shops. With these records there would be some factual basis for determining the effects of different kinds of noise.

It is known that some persons are much more susceptible to noise than others. If this can be discovered by measurement of hearing over a period of a few weeks, the worker can be warned away from noisy jobs.

The danger threshold for the average person is thought to be somewhere between 70 to 100 decibels of noise, but the accompanying pitch and period of time necessary to do permanent damage is not yet fully determined.

Ear muffs do some good. Along with research into the noise itself, several manufacturers are working on more efficient ear plugs. Some can reduce the sound which reaches the inside of the ear by as much as 20 decibels. Thus, winter or summer, the fashionable thing for workers in jet plane factories will be earmuffs.

A symposium on the subject of industrial deafness appears in *HEARING NEWS* (Jan.) published by the American Hearing Society.

Science News Letter, January 20, 1951

MEDICINE

Rice Diet No Cure for High Blood Pressure

► THE RICE-FRUIT diet for high blood pressure is a relatively safe means of lowering the blood pressure for short periods in some patients. But it "is dangerous in some patients and is curative in none."

These are among the conclusions of Drs. Carleton B. Chapman, Thomas Gibbons and Austin Henschel of the University of Minnesota and the Veterans Administration Hospital in Minneapolis.

The total effect of the diet, they point out, is "to induce what amounts to semi-starvation." In high blood pressure patients who are not overweight, this semi-starvation regimen makes little sense so far as treatment goes, in the opinion of the Minnesota doctors.

Grown men on the diet lose weight at the rate of about 3.3 pounds per week. The weight loss is due mainly to loss of fat and extracellular body fluid, but over long periods body protein also is lost, the Minnesota group thinks.

Adding salt-free protein to the diet promptly stops the weight loss without interfering with its blood pressure-lowering feature.

The salt-depriving effect of the diet is termed "decidedly dangerous" in some high blood pressure patients, especially those with disordered kidney function. Use of the diet in such patients, the Minnesota doctors say, "can only be classified as a desperate expedient."

Their conclusions are based on study of changes of body composition of eight high blood pressure patients. Details are reported in the *NEW ENGLAND JOURNAL OF MEDICINE*. (Dec. 7, 1950)

Science News Letter, January 20, 1951

Beautiful Lake Tahoe in the Rockies provides a controversial question in California and Nevada relative to the use of its water; it is in part in each state.



TURBOLINER—This is the first air liner to be equipped with Allison turbo-prop engines. The turboprop is similar to the turbojet, but instead of using the gases of a gas turbine directly for propulsion, they are used to turn a shaft and propeller.