in financing the exhibits. Cooperators, both commercial and non-commercial, are limited to organizations of the highest standing. The bronze plaque in each exhibit, bearing the name of the sponsor, carries considerable prestige because it indicates professional acceptance of the sponsoring company. A Professional Club will provide a place for representatives of sponsors to meet physicians and other professional visitors and discuss the application of their products to medical practice.

While the New York World's Fair in its medical and public health exhibits will tell the story of man and how he can live longer and better in the World of Tomorrow, the Golden Gate International Exhibition at San Francisco has a different story to tell you about health and medical matters, and will tell it in a different way.

Here you will get a chance to look behind the scenes of some of the world's most famous laboratories, in which chemists, biologists and other scientists are working at medical and health problems. This will be no mere imitation or pretense of scientists at work, but the real thing. Research workers from the leading universities of the West will be working in the laboratories, transferring their activities for the time from the laboratories of their home institutions.

Life in the Future

The results of this research which you can glimpse at the exposition will make life for future generations something very different from that we know today. The idea that some day our food will consist of a few capsules or pills of concentrated, scientifically correct nutrients is not new. The day when that dream can be realized is no longer far distant, it appears, and has already dawned for laboratory animals. At the Golden Gate Exposition you will see some of these animals that have been fed nothing but chemically compounded capsules from birth. With them you will see animals reared on a normal diet and the scientists will show you that the chemically fed animals are healthier and happier because their diets are controlled to the minutest fraction.

Capsule feeding of humans would be prohibitively expensive at present, but in the event of emergency such as war or disaster cutting off a population from its food supply, this synthetic feeding could perhaps be resorted to in future. Methods of manufacturing in the test tube the essential fats, sugars and proteins for such a diet will be shown publicly for the first time at the San Francisco fair.

Another unique feature of this exposition will be a demonstration of how drugs work on the human system. From this you can see what happens in your body when you take an aspirin tablet, for example, or when the doctor gives a hypodermic injection of morphine to relieve pain or of digitalis for treatment of heart disease. Mechanical models, charts and a new and improved edition of the transparent man will be used to tell this story of medicine.

The Golden Gate Exposition will have a special section devoted to the prevention of diseases that are transmitted to man from household pets and other animals. Among such diseases are tuberculosis, rabies and Malta fever. The American Veterinary Medical Association is planning this particular exhibit.

The two fairs will not open for over a year, and some details of the exhibits as described here may be altered before the opening days. Many exhibit sponsors, however, are already working with committees of the two fairs on their parts of the shows.

Science News Letter, March 26, 1938

MEDICINE—SAFETY

Drinking Drivers Dangerous As Well as Drunken Ones

Man Who Does Not Appear Drunk May Nevertheless Have Impaired Coordination That Makes Him a Menace

THE DRINKING driver, as well as the drunken driver, must be convicted by the courts, if the automobile accident toll is to be reduced. Even minor degrees of intoxication may have serious consequences.

Dr. Sydney Selesnick of Boston is the authority for the foregoing statement.

He presents (*Journal, American Medical Association,* March 12) the first of a series of papers from the advisory committee on the study of alcoholism at Boston City Hospital, sponsored by the WPA.

Three Indianapolis scientists announce in the same issue a rapid chemical test for intoxication that is made from the breath. The Boston investigators think blood alcohol determinations are superior.

"Alcoholic intoxication in the biologic sense without any gross manifestations of drunkenness can produce sufficient interference with psychomotor activity and neuromuscular coordination to render such an affected individual a potential public menace," Dr. Selesnick states.

The present accepted fifteen-hundredths of one per cent. blood alcohol as the level above which alcoholic intoxication is definite offers too wide a margin of laxity for the drinking driver, the experiments show. Dr. Selesnick expects to see this level lowered in the future.

Whether or not the driver has been drinking and what is the degree of alcoholic intoxication can best be determined, thinks Dr. Selesnick, by the chemical determination of body fluid alcohol. Such a test can detect degrees of intoxication that ordinarily escape the attention of competent physicians.

What if the accused driver refuses to submit to the extraction of blood for the test on the grounds that nobody can be made to testify against himself?

Blood extraction, contends the Boston physician, does not differ from finger printing. The same objections were raised regarding blood grouping tests in cases of disputed parentage. Several states enacted laws authorizing the court to order blood grouping tests when relevant, and similar laws could be enacted with regard to extraction of blood for the estimation of its alcoholic content.

The Indianapolis investigators—R. N. Harger, Dr. E. B. Lamb and F. O. Hulpieu—can make their test without touching the subject. A tube is held in the breath stream and a pump draws a sample of the breath through the apparatus.

Tests made on 121 subjects showed a good correlation between the concentration of alcohol in the blood and the amount of alcohol accompanying 190 mg. of carbon dioxide in the breath.

The weight of the alcohol accompanying 190 mg. of carbon dioxide in the breath is very nearly equal to the weight of alcohol in 1 cc. of the subject's blood.

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