

MEDICINE

Scientific Attack Launched Upon Drug Addiction

Non-Addicting Substitutes for Habit Forming Drugs Sought by National Research Council Committee

AFUNDAMENTAL scientific attack upon drug addiction has been launched and under way for the past two years, it became known when Dr. William Charles White, chairman of the National Research Council's committee, summarized the progress so far and the promises of future accomplishment.

Instead of treating the unfortunates who have become addicts to morphine or other habit-forming preparations, the groups of scientists working on this problem have begun with a thorough investigation of the chemical, biological and medical phases of the problem.

First, the committee is attempting to replace habit forming drugs with drugs lacking addiction properties. Morphine, for instance, is strongly addicting, while codeine, which causes few addicts, can replace many uses of morphine if used in larger doses. Marked progress had been made in recent years in the replacement of cocaine by safe drugs in practically all its uses except application for surface anesthesia. This gave the committee hope that substitutes for other habit forming drugs could be found and the national and international control of the manufacture, handling and sale of narcotics made easier.

With the cooperation of the American Medical Association, the committee plans to furnish physicians with information on the latest discoveries of how non-habit forming drugs can be substituted for those that are likely to cause addicts.

Laboratories Established

To discover narcotic substitutes two research laboratories were established, one at the University of Virginia for chemical analysis and synthesis of alkaloid substances and the other at the University of Michigan for the biological testing of the narcotics and their substitutes.

The National Research Council committee has also worked closely with the U. S. Public Health Service and the Treasury Department Narcotic Bureau.

The funds for the work have been provided by the Bureau of Social Hygiene, Inc., of New York City, of which Lawrence B. Dunham is director.

Because few American chemists had worked on alkaloid chemistry in the past twenty-five years, it was necessary to import chemists from Europe for the staff of the University of Virginia laboratory, which has been directed by Dr. L. F. Small, an American who had spent two years in narcotic research in Europe. Dr. Small and two colleagues, Dr. Erich Moseing and Dr. Alfred Burger from the laboratory of Prof. Ernest Späth in Vienna, are now training American chemists to carry on this work. They have made thirty compounds for testing by the University of Michigan laboratory in charge of Prof.

METEOROLOGY

January Drought Threatens Crops in Many States

THE United States is in the grip of another drought, no less severe than last summer's, though people are not now suffering from uncomfortable heat. Abnormally dry January weather following the record-breaking drought of 1930 has depleted the subsoil moisture over large areas from the central Mississippi Valley eastward to the point that even a moderate deficiency of rainfall at the beginning of the active growing season would quickly injure crops, J. B. Kincer, chief of the U. S. Weather Bureau, told Science Service.

Heavy rains are badly needed in Missouri, Illinois, Indiana, Ohio, Kentucky, the Virginias, Maryland, Pennsylvania and New Jersey to replenish subsoil moisture, reports from these regions indicate.

Moisture at the surface of the soil is still sufficient for present needs in most places, but unless the deeper soil is sup-

plied before spring, even a slight drought would cause damage.

Members of the National Research Council's drug addiction committee include: Dr. William Charles White of the National Institute of Health, chairman; Dr. C. S. Hudson of the U. S. Bureau of Standards; Dr. F. B. LaForge of the U. S. Department of Agriculture; Dr. Walter Treadway of the U. S. Public Health Service; Dr. Carl Voegtlin of the National Institute of Health; Dr. Torald Sollmann of Western Reserve University School of Medicine; Dr. Reid Hunt of Harvard University School of Medicine; and H. J. Anslinger, U. S. Commissioner of Narcotics.

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There is less oxygen in the water of the Pacific Ocean than there is in Atlantic Ocean water. There is more oxygen in the water of great deeps of both oceans than there is in water from moderate depths.

These are among the discoveries made by Dr. Erik G. Moberg of the Scripps Institution of Oceanography. Dr. Moberg found the greatest oxygen content in Pacific Ocean water at the surface. Here the water was nearly saturated with oxygen.

"Winter wheat is beginning to need moisture rather generally throughout the Ohio Valley, with the ground now bare of snow. Conditions are still reported as fair to good but there was a deterioration in some parts," Mr. Kincer stated.

"The absence of snow in central Rocky Mountain regions was very unfavorable to winter grains, especially in Wyoming where winds were detrimental. Winter grains are doing well in the southwest but moisture is needed in the middle Atlantic sections."

This critical condition does not prevail, however, in Arkansas and other southern states which suffered acutely from the drought last summer, because of the heavy spring rains which preceded the dry weather and left the subsoil supplied with water.

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