

months with the new moon, New Year theoretically with the spring equinox. The necessary adjustment between the lunar and the solar year was made by inserting extra months. All this demanded specific astronomical information. The path of the sun through the heavens had been charted through the twelve constellations, whose names still survive in our zodiac. At least 71 stars were carefully studied and named.

Astronomy made real scientific progress during the last millennium before the Christian era. Solar and lunar eclipses as well as heliacal risings were now accurately predicted. The precession of the equinoxes may have been recognized, and the tropic year was distinguished from the sidereal. And so Babylonian astronomers are now accorded long overdue honor for accomplishments commonly attributed to Greek astronomers.

Progress in biology was not so pronounced as in astronomy, but elementary steps were taken. Long lists of animals, ordered in divisions and subdivisions, reveal an active interest in the living world. When fish are grouped with clams or eels with snakes we may not agree with the classification, but we understand the reasoning. More than 400 distinct plants and trees had been identified and named by these ancient scientists.



Babylonia's wise men used instruments like this for sighting, when they observed the celestial bodies. The instrument shown belonged to Egypt's famous king, Tutankhamon.

Geographical knowledge was certainly inadequate and restricted, in ancient Babylonia. But there was interest in accumulating data on distances between cities, and descriptions of regions. City plans are sometimes so carefully drawn that they are of actual help to modern excavators. One ambitious Babylonian geographer produced a "world" map which plainly shows that there were still many worlds left for him to explore.

Chemistry as a science developed out of practical needs and practical experiences. Metal smelting was practised before written history, more than 5,000 years ago, and it was through experimentation with fire that early man learned much about the properties of many minerals. About 120 minerals are recognized in Babylonian lists. These were distinguished and classified accord-

ing to various standards, such as use, color, hardness.

Detailed formulas for making various kinds of glass are preserved. A recipe for lead glaze colored with copper is dated 3,500 years ago. Aside from practical uses for chemistry, Babylonians also interested themselves in the ever fascinating problems of producing gold from baser minerals and the manufacture of synthetic precious stones.

It was their practical compilation of observed phenomena, as well as their discovery of general truths, that made the Babylonians pioneering scientists. One hundred years of exploration and research in the field of ancient Near Eastern history have yielded such astounding results that today it is unwise to speculate on the further capacities and resources of these early people along any line of human endeavor.

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PSYCHIATRY

No Sex Crime Trivial, Says Physician, Urging Mental Care

Asks Examination of All Convicted of Such Crimes; Many Guilty Are Seriously Ill, Government Psychiatrist Declares

MENTAL examinations of all persons convicted of sex crimes would meet with the approval of physicians who specialize in the treatment and study of the mentally ill. Such a plan as that proposed for New York City is considered a step in the right direction.

Many of those guilty of such offenses are seriously ill mentally, says Dr. John E. Lind, in charge of the criminal insane at St. Elizabeth's government hospital at Washington, D. C. Although very little can be done toward curing the sexually abnormal adult, it is very important that they should be segregated for the protection of society and should be given medical care.

Those guilty of sex offenses usually are in one of three groups, Dr. Lind explained. First, the feeble-minded are frequently guilty, not that they are sexually abnormal, but they lack the intelligence to control their behavior and the initiative to find in marriage a socially acceptable outlet for their sex impulses.

Another group are old men who are becoming senile; like the feeble-minded they are not responsible, and cannot con-

trol themselves. The third group are the truly sexually abnormal; although such persons may go through life without doing anything publicly that would get them into trouble with the law, they are always a potential danger and may at any time be guilty of serious crimes against innocent persons.

Sex crimes against children are not, medically speaking, different from those against adults. Children are the victims with pitiful frequency because they are so helpless, because they are easily lured away into sequestered places and because they would not be able to betray the attacker by an accurate description or might be silenced by threats.

No sex crime is considered trivial by the physician. Although an attack upon a child arouses a much greater public resentment and results in more serious legal punishment, those other offenses that are usually dismissed with a five dollar fine in police court—those of the "masher" type—are just as serious to the physician because they are symptoms of sexual abnormality which may just

as well later find expression in rape or sex murder.

"There is no such thing as a trivial sex offense any more than there is a trivial hallucination or a trivial delusion," declared Dr. Lind.

Not all sex offenders are mentally unbalanced, however, Dr. Lind warned. Alcohol is responsible for many an indiscreet act on the part of a person who may be perfectly normal when he is sober. It would be silly to commit such a person to a mental hospital if his drinking is merely an incident and not habitual alcoholism. Sex offenses are sometimes committed by young boys who are temporarily unbalanced because of their youth and lack of self control or because of some acute strain on their sanity. Such cases deserve understanding treatment as dictated by the particular circumstances.

Prison Not Beneficial

Prison is not the place for these boys or for any sex offenders. Prisons are the gathering places for men who already have very low moral standards and perverted minds. To throw a sexually unstable person into such company would probably increase his difficulties; to release him after a term in such a school would result in exposing the public to greatly increased danger.

Although no other mental disease offers such a hopeless outlook as that of the sexually abnormal, Dr. Lind believes that medical science could help such cases if only they could be reached long before the stage when the patient appears in court charged with a serious offense.

Mental clinics in the schools, where children could be examined for the beginnings of these and other mental abnormalities as they are now looked over for dental defects or bad eyesight, might result in a great reduction in crime of future years and add to human happiness in a way that no statistics could reveal, Dr. Lind said.

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A new South American weevil has started destroying crops in a small area in Alabama and Florida, and is being urgently investigated by government entomologists.

Sea island cotton is having a comeback success in Florida, due to better methods of culture and insect control than were possible when the crop was wrecked by boll weevils 20 years ago.

MEDICINE

Veterans' Administration Operates 5 Cancer Hospitals

Government Surgeons Mobilized to Combat Increase of Disease Among Ex-Soldiers; Hines Clinic Largest in World

By GENERAL FRANK T. HINES
Administrator of Veterans' Affairs

BECAUSE of the increased morbidity and mortality incidence of cancer in the general population and because steps are being taken by the Federal Government to establish a Cancer Institute in Washington, D. C., for the study of the cause and nature of cancer and to develop improved methods of treatment, it has occurred to me that the public might be interested in learning what the Veterans' Administration has accomplished during the past few years in its effort to control and treat cancer in veterans.

This disease is appearing in veterans at an accelerating rate the same as obtains in the civil population. The present rate of monthly admissions and readmissions for cancer in Veterans' Administration facilities is about 380. A total of approximately 700 veterans with can-

cer are being treated in the facilities of the Veterans' Administration at all times. Most of these patients are being cared for in the special tumor clinics which have been established at certain of the facilities of the Administration.

Several years ago it became apparent that the disease was increasing in incidence in veterans, and that special facilities would have to be provided for their hospitalization. Accordingly, a tumor clinic was established at Hines, Ill. This, by the way, is the largest cancer clinic in the world, and is one of the best equipped institutions of its kind. In addition five auxiliary tumor clinics were established at strategic geographical points. These are located at Veterans' Administration Facilities, Portland, Ore., Los Angeles, Calif., Bronx, N. Y., Washington, D. C., and Atlanta, Ga. At each of the tumor clinics there is available high voltage X-ray equipment, and a



G H Q OF CANCER FIGHT

Chief of the tumor clinics that care for veterans suffering from cancer is located at the U. S. Veterans' Administration Facility at Hines, Ill. This particular clinic is said to be the largest of its kind in the world. The giant hospital building, partially seen in the foreground of the airplane view, is a half mile long. Other buildings include research laboratory, staff and nurses' homes and administration quarters.