

creased power of large telescopes is a great advantage. Worth-while investigations and fine work of a miscellaneous character can be done with apertures of twelve inches and less. The small and medium-sized telescopes in the United States are capable of being used for research to a far greater extent than is the case at present.

Observational astronomy is carried on at special research observatories and by departments of astronomy in academic institutions. Excellent graduate instruction in astronomy may be obtained in any one of ten or twelve colleges in the United States. The two largest research observatories in which there are regular arrangements for the admission of students are the Lick Observatory at Mount Hamilton, California, and the Yerkes Observatory at Williams Bay, Wisconsin. In several places there are graduate fellowships or assistantships which pay the living expenses of the holder while he is working for a doctor's degree.

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As a basis for a worth-while research career in astronomy, the student should have an insatiable curiosity concerning the secrets of the stars, and unbounded enthusiasm for personal investigation. Without these he would surely find an astronomical career unenjoyable, and it would probably prove unprofitable as well; but possessing these qualifications and fortified by sound technical preparation, astronomy may be the only life work which he could carry through without vain longings and regrets arising from a sense of stifled aspiration.

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SCIENTIFIC EVENTS

EPIDEMIC DISEASE IN EUROPE

THE sixth number of the *Epidemiological Intelligence Bulletin* has just been issued by the health section of the League of Nations Secretariat. According to the summary in the *London Times*, it deals with epidemic diseases in Eastern and Central Europe from May to December, 1922, and treats in some detail typhus and relapsing fever, Asiatic cholera, dysentery, smallpox, plague, epidemic diseases of the central nervous system, malaria and enteric fever. The statements are based on

the number of cases notified. Actual comparisons between countries are generally impossible. Briefly summarized, the comparison between 1921 and 1922, in so far as the reports have been received, is as follows:

The incidence of typhus and relapsing fever was fully twice as great in 1922 as in 1921 in Russia, another extremely high epidemic wave having occurred in 1921-22. This wave was quite double the 1920-21 wave, but was less than half as great as the second wave of 1919-20, judging from the number of cases reported. In Poland no improvement in 1922 over 1921 was noted for typhus and the prevalence of relapsing fever has greatly increased. In Latvia there was apparently an increase of typhus, but a decrease of relapsing fever.

With the exception of the Ukraine and the Russian Black Sea littoral, the cholera situation improved considerably in 1922. In Russia, exclusive of the Ukraine, the number of cases reported in 1922 was about one fourth of those reported for 1921 since the great epidemic in South Russia of 1921 had come to an end. In the Ukraine, however, a serious epidemic occurred in 1922; the number of cases in July (the highest month), 1922, was four times as large as in July, 1921. No serious epidemics were noted elsewhere.

Notifications of dysentery probably mean nothing more than certain intestinal infections with similar clinical symptoms, but the prevalence of the disease in 1922 was apparently considerably less than in 1921 in all the countries concerned. Even in Russia, for which the reports are extremely incomplete, there is no evidence of unusual prevalence.

Smallpox declined in 1922 in all countries where it was markedly prevalent during the preceding year, although its incidence was still high in Russia.

Malaria assumed more alarming proportions in Russia during 1922 and the situation was rendered even more serious by the appearance of the tropical type in Eastern Russia. The million and more cases actually reported for Russia represent a small proportion of the cases which must have actually occurred.

The incidence of enteric fever was less during 1922 than during the preceding year in nearly all European countries.