

will now have to compete more vigorously for teachers and for students.

Professor Muriel Bradbrook, the Mistress of Girton—one of three women's colleges at Cambridge—said this week that she welcomed the decision even though she could see no great reserve of women scientists in the schools. Her own college, she said, was always on the look-out for more women scientists of the right calibre. She hoped that Churchill's decision would not simply draw off women science undergraduates who would previously have gone to Girton or one of the other colleges, but rather that it would stimulate girls' schools to emphasize science. She anticipated that Churchill and any other men's college which follows its lead would work out some joint examination scheme for entrants with the women's colleges so as to increase the total number of applicants.

As Oxbridge colleges ponder their reaction, some of the Ivy League universities in the United States are working out their own ways of dissolving the remnants of monasticism they assimilated from Oxbridge. After Yale's plans to team up with Vassar came to nothing, the university decided to admit women undergraduates instead—the first will arrive in September. Princeton is following suit with 1,000 places for women. And Harvard and Radcliffe, after 25 years of morganatic marriage, have decided to merge officially. Radcliffe girls will not merely attend Harvard classes and gain Harvard degrees but will become members of the university as well. As at Churchill, they will by the early seventies be living in the same houses, dining in the same halls and coming under the same administration as the Harvard men.

SCOTTISH ASTRONOMY

Seeing from Glasgow

from our Astronomy Correspondent

AFTER more than thirty years, serious observational astronomy is starting again at the University of Glasgow with the opening last Monday of a new observatory with a 20-inch Grubb-Parsons reflector for a centrepiece. Astronomy at Glasgow has an even longer history than at Edinburgh, beginning with the founding of a chair of astronomy in 1760. Since then, the university has had a series of observatories, but in 1935 gave up the unequal struggle against the deterioration of seeing conditions around the city. Even so, there has until recently been a small observatory for students in University Gardens, and one of the functions of the new building will be undergraduate teaching. Now that instrumentation is becoming increasingly important in astronomy, the department has also been able to justify the telescope as a test-bed for the development of new equipment, which will be used on more favourably sited telescopes elsewhere. The department has its eyes on the 98-inch Isaac Newton telescope at Herstmonceux. Until now, of course, the accent has been on theoretical studies, chiefly stellar structure, solar physics and the motion of stars. With the new facilities, the department will go in for studies of the polarization of light from celestial bodies—rapidly rotating stars, interstellar material and lunar luminescence.

As well as the £16,000 telescope, the observatory has a spectrograph, a solar tower and an 8-inch coelostat as well as provision for a radio telescope. There is also

a library, a lecture room with a small planetarium, and laboratories for undergraduate teaching. The total cost was more than £100,000.

TRYPANOSOMIASIS

African and American Experience

FOR millions of people in tropical Africa and America, a life free from trypanosomiasis must be almost inconceivable. In spite of intensive research, there is no single, inexpensive method of mass control which is effective in all epidemiological conditions, and total eradication remains a dream. For many years, local control measures have been based on strict surveillance, early diagnosis, chemotherapy, chemoprophylaxis and vector control, but these measures tend to break down in the face of economic and social problems with resulting recrudescence of trypanosomiasis.

This week, the World Health Organization has published a report which provides a comparative approach to the similarities and differences between American trypanosomiasis (caused by *Trypanosomonas cruzi*) and African trypanosomiasis (caused by *T. gambiense* and *T. rhodesiense*) in the hope that this will help in the development of improved methods of control. The report (*WHO Technical Report Series No. 411; 6s*) sets out to draw attention to techniques for the study of one disease that could be adapted to the study of the other. It also reviews the advances that have been made and recommends areas of research which are ripe for tackling. The report will no doubt be enthusiastically received; according to a member of the WHO scientific group secretariat, the report is "a most valuable exercise"; for the first time it has brought together workers from all over Africa as well as those working on the disease in Europe, thereby resulting in useful discussions on problems in the field. WHO has considerable experience of trypanosomiasis and at the present time has a scheme running in Kenya under Dr David Scott concerned with the epidemiology and eradication of African trypanosomiasis.

Vector control apart, there are two ways of controlling the disease: active immunization and chemotherapy. Dr P. L. F. Boreham, of the department of zoology and applied entomology, Imperial College of Science and Technology, says that although it is possible to immunize against homologous antigenic types, the prospects of a vaccine for general use in the foreseeable future are poor because antigenic variation occurs so frequently and unpredictably in wild strains of African trypanosomes. The WHO scientific group, though more optimistic, nevertheless recognizes the difficulty of comparing the different methods of immunization in experimental use because of the lack of standardization. It therefore urges that immunization and challenge inocula should be derived from standard stabulates maintained in two WHO banks. It also urges that studies should be made of the use of adjuvants—the relationship between the immunization schedule used and the rise and fall of immunity, and the use of irradiation for the attenuation of organisms.

African trypanosomes respond well to drugs to which *T. cruzi* infections are notoriously resistant. Precisely how the resistance develops—whether, for example, transfer of drug resistance as in bacteria is involved—is not known. Indeed, it is not even known whether