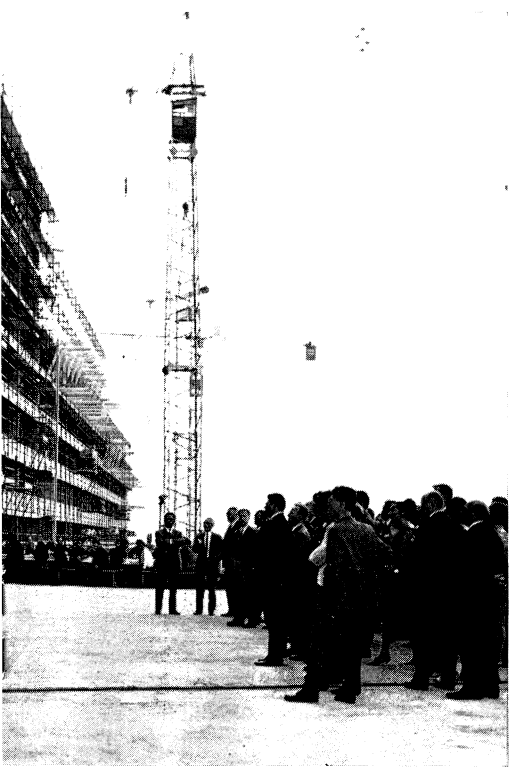


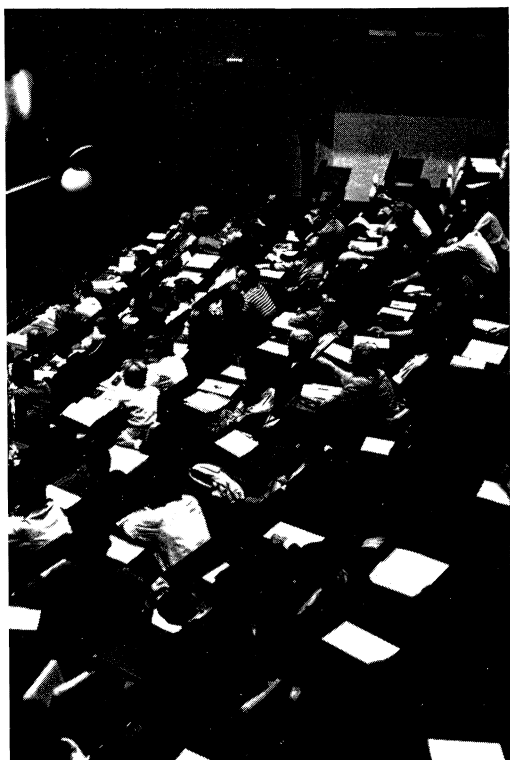


CERN/PI 208.6.66

major construction work on the first block of flats to be erected by the CERN Staff Insurance Scheme. The speaker (left) is Mr. Jenny (the architect) and the other half of the contractors engaged on the project. The gathering is the CERN Staff Insurance Scheme, Mr. Jenny (the architect) and

end of 1965, giving an introductory lecture on 25 July to the topic of his — 'The place of high energy physics in modern science'. He was then transferred to his post at the Massachusetts Institute of Technology and several months working here.

ties and equivalent institutes in the member States were organized to receive students this summer. Another nine participants were assigned at CERN. In addition, a special series of lectures of over 70 hours of lecturing time covering computer science and engineering subjects.



CERN/PI 203.7.66

Rooms at the Top

On 22 June, a ceremony was held at Grand-Saconnex to mark the completion of major construction work on the first block of flats in the housing project undertaken by the CERN Staff Insurance Scheme. The basic structure of all nine floors in this long block, which will house 284 flats, is finished and it is hoped that the first of the flats will be ready for occupation at the end of autumn this year.

Work started on the site at Grand-Saconnex on 26 April 1965. There will eventually be 550 flats in four blocks and it is intended to allocate about half of them to CERN personnel and members of other international organizations, the remainder being available to Geneva families.

The project is part of a planned programme of investment of the Staff Insurance Scheme. The programme was described in the Annual Report of the Staff Insurance Scheme for 1964. The CERN Scheme has invested 50 % of the necessary capital for the construction of the flats and the other 50 % has been raised by the Scheme outside Geneva. In this way it is helping to ease the housing shortage in Geneva, without drawing on the limited capital available in the city for building.

The ceremony was attended by Mr. Chavanne (Conseiller d'Etat in Geneva and Swiss delegate to the CERN Council), Mr. Rivoire (Mayor of Grand-Saconnex), as well as Mr. Jenny (the architect of the project), G. H. Hampton and several other representatives of the CERN Staff Insurance Scheme.

News from Abroad

Stanford

It was announced on 30 June that the US Office of Naval Research has approved a \$ 4.4 million modernization programme for Stanford University's Mark III electron linear accelerator. The Mark III came into operation 15 years ago. It has a peak energy of 1 GeV and the most notable work with the machine has been the investigation

of the structure of the proton which gained Professor Hofstadter a Nobel Prize.

The improved version of the Mark III will have a beam intensity of 40 μ A (as opposed to the present 2 μ A) and a peak energy of 2 GeV. It will also have a longer duty cycle and better momentum resolution. The new machine will be built in an underground tunnel, 4 m in diameter and 200 m long, about 7.5 m below the existing machine. The earth shielding will then allow the accelerator to be operated 24 hours a day; at present, the Mark III can only be run at nights, week-ends and holidays because of the high radiation levels affecting the rest of the laboratory personnel.

A major item in the modernization programme is the construction of a very large spectrometer involving a magnet about 3.5 m radius. The spectrometer will be 12.5 m high and will be housed in an underground experimental area 60 m long, 22.5 m to 30 m wide and 18 m high. It will be possible to direct beams from the improved Mark III into this new experimental area or into one or other of the two existing areas.

An exciting prospect is that the new Mark III will be a superconducting accelerator — the first in the world. The Naval Research contract calls for further development of the research into superconductivity at Stanford and the possible application of its principles to the improved Mark III. Towards the end of last year, this research led to the acceleration of a beam of electrons in a small superconducting linear accelerator section for the first time (see CERN COURIER, vol. 6, no. 1 (January 1966) p. 15). If it can be applied successfully to big machines, it will result in higher energy for a given length of accelerator, in great savings in electrical power (though economically this will be offset by the cost of the refrigeration system), and, most importantly, in the ability to accelerate a continuous beam of particles instead of a pulsed beam. This last advantage could give a 10 000 fold improvement in the duty cycle of the Mark III.

Construction of the new machine still awaits official approval and is not expected to begin until the spring of 1968. Extensive studies of the problems connected with the underground tunnel will, however, begin at once. It is estimated that construction will take about four years.