

hilly 1, has been electronically renovated, and shares duty with Goonhilly 2. The old Atlantic aerial now faces east and the new aerial serves the busier Atlantic side. The Goonhilly 2 terminal has a dish of 27.5 m in diameter and facilities to carry up to 400 telephone circuits and a television programme between Europe, North America, Africa and the Middle East. The web of countries which can communicate directly with Goonhilly will soon be extended to include Kenya, Bahrain and Hong Kong, where terminals are now under construction.

One novel feature of the restyled Goonhilly 1 terminal is the low loss elliptical waveguide which takes the signals from the central control building to the aerial site, a distance of 525 m. The use of a transmitter system with such a long waveguide makes it possible to concentrate the maximum amount of equipment in one place and to switch between the two aerials direct from the central building.

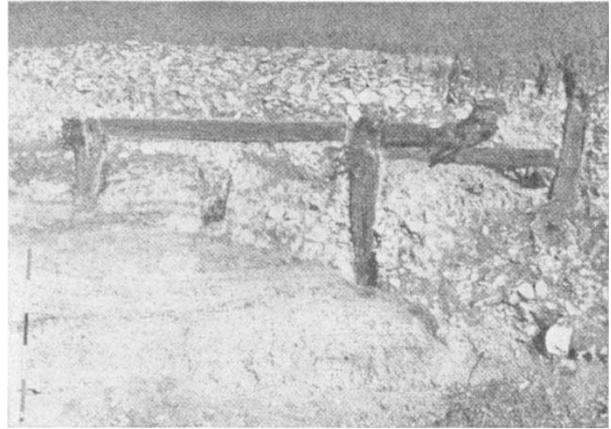
There have also been developments in the Soviet Union, which has been operating its own space communications system independently of Intelsat. The Molniya-1 satellite system has been beaming radio and television signals across the Soviet Union for about four years, and Professor Vladimir Minashin, head of the Space Communications Department of the Soviet Ministry of Communications, announced last week the linking of regular colour television broadcasts to the satellite network later this year. The distribution of populations in the Soviet Union is particularly suited to the use of communications satellites, which apparently relay newsprint and weather charts as well as television and radio programmes. Professor Minashin also announced the building of a station for the Orbita system in Ulan Bator, Mongolia. This is the first station of Soviet design to be built outside the Soviet Union.

#### ARCHAEOLOGICAL EXCAVATIONS

### Ministry as Rescuer

**BUSINESS** at the ancient monuments division of the Ministry of Public Building and Works is booming too quickly for comfort. For the past half dozen years, the annual catalogue of rescue excavations mounted by the ministry at sites threatened with imminent destruction has grown fatter. This year is no exception and the catalogue for 1968 also has a new title, *Archaeological Excavations 1968*, a new price (7s, HMSO), and for the first time a glossy cover, which smacks above all else of putting a brave face on things. Like second sons of second sons, the ministry's archaeologists and those contracted to do specific excavations are expected to work with small budgets backed up by a conservation laboratory hopelessly overwhelmed by the amount of material dug up at the 91 sites excavated during the year. During 1968, according to the report, all the available resources were needed to meet the demand for excavating sites threatened with immediate destruction, which meant, of course, that numerous field monuments had to be left to the gradual erosion of ploughing and other agricultural activities.

Even the sites that are selected for excavation sometimes present problems beyond the resources of the ministry. One of the great ironies of the situation is that the larger the site, the less able the ministry is to



Remains of a Roman timber bridge across the River Nene at Aldwinckle in Northamptonshire.

deal with it. "The heavy demand already placed on the ministry's services has given rise to problems of organization and staffing, particularly with regard to the excavation of larger sites where camps have had to be arranged to house the necessary labour and volunteers. Though it will be possible to continue to organize these operations through excavation committees the ministry itself has not staff available to mount camps of the requisite size and order." Given all the difficulties under which the archaeologists are forced to work, it would be churlish to be anything but grateful for the amount of material they rescue. But it is time that landowners and the Government accepted their responsibility for ensuring that archaeological sites are not neglected and that excavations are adequately financed.

#### NOBEL PRIZE

### Chance for the Economists

Now that the Swedish Central Bank, to mark its tercentenary last year, has put up the money for a Nobel Prize for Economic Sciences, only the engineers are left in the cold. Why Alfred Nobel left engineering off his prize list at the turn of the century—a time when the public reputation of engineering was probably at its peak—is something of a mystery. Certainly engineers had then and for that matter still have as great a claim to be honoured by Nobel prizes as any of their contemporaries in other fields. Perhaps Saab or Volvo or some other Swedish engineering company will come to the rescue. Meanwhile, from this autumn onwards the world's economists will be able to join the intriguing game of spotting the prize-winners.

Already the economists' papers are speculating on the names on the short list for the first prize, worth £28,000 to the winner like all the other Nobel prizes. The Swedish economic weekly *Veckans Affärer* suggests that the field has been narrowed down to nine or ten from an original entry of about 200. It is strongly tipping Professors N. Kaldor and J. E. Mead of Britain, Professors M. Friedman and P. A. Samuelson of the United States, the Russian mathematician Professor L. V. Kantorovitch and Professor F. Parroux of France. Such detailed speculation contrasts with the surprise and secrecy that surround the awards to