such a small sum of money is outrageous".

But whatever solutions are tried to remove the problems of running costs, further plans for mergers are not among them. The AA has come to value the very independence which causes its problems and even what sometimes seems to be this school's function as a "roque elephant".

MUSEUMS

Telescope Transported

from a Correspondent

THE 28-inch refracting telescope that was in use at the Royal Observatory at Herstmonceux until a few months ago is being moved this week to its original site in the old Royal Observatory buildings at Greenwich. The telescope will become part of the museum of astronomy that is being established at Greenwich, and by late 1973 it should be available again for use by amateur and professional astronomers.

Removal of the telescope from the dome at Herstmonceux—which is needed for a new wide-angle telescope—and transportation and re-erection at Greenwich is an awkward engineering job. As well as the 27-foot telescope tube, the plan calls for the transport to Greenwich of the 26-foot polar axis and two 24-foot cast iron piers. But the chief task will be the reconstruction of the onion dome in which the telescope used to be housed while it was at

Greenwich. The reconstructed dome will be built during 1972 and 1973, well in time for the celebrations in 1975 marking the tercentenary of the founding of the Royal Observatory. In the meantime the telescope and its mounting will be protected by a plastic drum which has already interrupted the familiar skyline of Greenwich.

The 28-inch telescope was built during the expansion of the observatory that occurred during the second half of the nineteenth century as a result of the appointment of the Cambridge mathematician George Airy as Astronomer Royal, although Airy retired before the telescope came into use, and he is not thought to have observed with it. Demand for the telescope arose through the so-called Neptune scandal: mathematicians in France and Cambridge independently predicted the existence of Neptune and the planet was observed by French astronomers, but there was no instrument in England capable of detecting it. As a result of the rumpus that this caused in scientific circles and in Parliament, the Admiralty—then responsible for the Royal Observatory—agreed to the commissioning of a 28-inch telescope to replace the 12.8-inch refractor, but insisted on economic grounds that the same mounting be used. But in order to accommodate the extra length of the new telescope, an onion-shaped dome had to be constructed—of *papier mâché* on an iron frame—that remained a feature of the Greenwich skyline until 1954.

RESEARCH ASSOCIATIONS

Where Next?

THE Sira Institute seems to be swimming against the economic tide. The annual report, now published, shows that income increased from £536,510 to £588,115 over the year just past in spite of a decrease in grant from the Department of Trade and Industry of £30,790 to £227,270. Dr Sydney Jones, chairman of Sira, is cheerful enough about this modest increase in business but it seems clear that the research associations will in future be much more keen to sell their services in the open market. No doubt a research association concerned with scientific instruments has more scope than most.

The position of research associations is still far from clear. Sira itself is in the second year of a five-year plan during which the government grant will be steadily decreased, and there is no guarantee of continued support thereafter. Dr Jones's optimism about the immediate future does not change the view that, in the long run, government aid in some form will be necessary if the research associations are to survive. Many of them, Sira included, are hoping to attract government money in the form of research and development contracts rather than continuing grants.

In the past year, Sira seems to have benefited a little from the way in which economic pressures have forced companies to take a more hard-headed view of research and development expenditure. There have been some occasions when companies have put research and development contracts with Sira instead of trying to do the work themselves.

Sira's income from general subscriptions last year was the same as during 1969–70 but it was achieved by smaller subscriptions from a larger number of companies, possibly reflecting this trend. Dr Jones added that the increase in Sira's income came from an 11 per cent increase in project contributions and a 27 per cent increase in contract income, together with a 5 per cent decrease in expenditure achieved by reducing the staff by over 14 per cent to its present level of 190 employees.

Two German companies, Jenaer Glaswerk Schott and Gen. of Mainz and Siemens AG, have joined and are co-operating on projects concerned respectively with the image control of fibre plates and ion selective electrodes for analysis and monitoring. Another sign of the times as far as research institutions are concerned is that Mr S. S. Carlisle, director of Sira, is a member of a committee of the Department of Trade and Industry that coordinates collaboration between the instrument making industry in Britain and that of Eastern Europe.

National Maritime Museum

The original onion-shaped dome of the 28-inch refractor at the Royal Observatory, Greenwich.