

the district remain under house arrest. Two people bitten by the rabid dog, together with about fifty others who may conceivably have been exposed to infection, were put on a course of fourteen daily injections of anti-rabies virus. They are being kept under observation during the period of potential incubation, but now appear quite healthy.

INSTRUMENTS

Slow Progress by Sira

ALTHOUGH there was an improved performance by the British scientific instrument industry last year, the industry's research association has not done as well as was hoped when the association celebrated its golden jubilee a year ago. The annual report of the Scientific Instrument Research Association (Sira) for 1968-69 records that subscriptions from members and contributions towards projects showed a slight increase of £2,000, but the grant from the Ministry of Technology fell by £14,773. This is because most of the grant comes from an arrangement by which the government donates three times the industrial contribution for work on measurement and control, and in this area the association's income was down. Nevertheless, Sira has been able to make available an extra £50,000 compared with 1967-68 by dipping into £107,272 carried over from last year.

The association's performance is disappointing, however, because last year it embarked on a new scheme to make membership more attractive and thus ultimately to bring in more money from the Ministry of Technology. It is too early to say that the new membership structure has misfired, if only because it had been in action for a mere seven months before the end of the financial year. But the total of 151 members listed in this year's report is only six more than last year. It seems that several large firms, including the Hilger and Watts Group, have taken the opportunity of the new arrangements to opt out of the association. It is clear that Sira has still not found what the industry expects of it.

Last year was more cheerful for the instrument industry as a whole, however, and the figures for the first six months of 1969 are equally optimistic. The export surplus for 1968 was £19.036 million, which is only fractionally more than the surplus of £19.027 million for the first six months of this year. Optical instruments have done less well than electrical and electronic instruments, however, which is attributed to the bogy of German and Japanese competition. The director of Sira, Mr S. S. Carlisle, is particularly eager to encourage closer ties with eastern Europe and much effort has been devoted to the creation of informal links with Hungary and Poland. Sira is also involved in the negotiations with the Soviet Union on measurement and standards, and it is no accident that some of the discussions have been concerned with ways of specifying and measuring the image quality of optical systems. Sira has devised equipment for measuring optical transfer functions, a way of evaluating the performance of lens systems, which last year made £6,500 in royalties for the association. It is hoped that the establishment of international standards for optical components will encourage wider use of the Sira equipment and even be a shot in the arm for the British optics industry.

FISHERIES

Reducing the Import Bill

THE United Kingdom has an import bill for fish meal and oil of more than £20 million a year, equivalent to more than one million tons of fish, and the Marine Laboratory at Aberdeen is one of the laboratories concerned to reduce this bill. In its report for 1968 (HMSO, 15s) the laboratory, which comes under the Department of Agriculture and Fisheries for Scotland, says that it is in particular trying to assess the industrial potential of the blue whiting (*Micromesistius poutassou*). This is a species found in enormous shoals off the west coast of Scotland and in the northern North Sea but at present not exploited commercially. Surveys by the laboratory in 1967 and 1968 have shown that the spawning stock on Rockall Bank alone could exceed one million tons, which would provide large catches by bottom trawl in the late winter and spring. It also seems that there are abundant quantities of other fish suitable for the fish meal industry—the silver smelt (*Argentina* spp.) and another small relative of the haddock and whiting (*Gadiculus argenteus*) which could be caught in the same region in October to compensate for the lack of the blue whiting in the bottom trawls at this time of the year. From other surveys that the laboratory and German investigators have made, it seems that the blue whiting during late summer and autumn is instead distributed in mid-water over Rockall and further north, so that it could be caught in large quantities with pelagic trawls.

CSIRO

Continuing the Boom

IT would be misleading to judge the further expansion of the Commonwealth Scientific and Industrial Research Organization of Australia in the past year solely in terms of the \$4.1 million increase in the annual budget between 1967-68 and 1968-69. The annual report for 1968-69 shows that several divisions of the CSIRO have been steadily shifting the emphasis of their work, notably in building research, where computers have been coming to the fore, and soil research, where factors involved in soil fertility are receiving added attention. Important new topics have also appeared on the agenda, including several new projects in animal health and horticultural research.

The total expenditure of the CSIRO in 1968-69 was \$46.6 million, of which \$42.9 million was spent on scientific investigations. The largest division, that of plant industry, increased its budget from \$3.4 million

INCREASE IN EXPENDITURE AT CSIRO
(millions of Australian dollars)

Subject	1968-69	1967-68	Per cent increase
Plant industry	3.77	3.44	9.6
Entomology	2.06	1.85	11.2
Animal physiology	1.72	1.58	9.2
Animal health	1.71	1.48	15.9
Applied physics	1.61	1.47	8.9
Food	1.60	1.39	15.3
Soils	1.52	1.41	8.5
Tropical pastures	1.49	1.30	14.3
Land	1.46	1.31	11.3
Textile industry	1.17	0.99	18.0