

## OLD WORLD

### SCIENTISTS' PAY

## Splitting the Difference

THE announcement last week of the award of the Civil Service Arbitration Tribunal to scientists employed in government laboratories brings to an end the first round of the dispute between the Institution of Professional Civil Servants and the Civil Service Department that has gone on since early in June. The IPCS, however, is far from satisfied with the result and is already preparing a campaign to change the whole process of pay determination for government scientists.

The IPCS, after asking for an overall increase of 14.1 per cent for members of the scientific classes, was offered 2.5 per cent by the Civil Service Department—with no increase for the higher grades. The arbitration tribunal awarded 5 per cent to the higher classes not offered any increase originally but was more open-handed with the Scientific Assistant classes. Otherwise the tribunal mostly confirmed the original Civil Service Department offer, details of which were given in *Nature*, **232**, 512; 1971. The Senior Scientific Assistant class was awarded a 5 per cent increase compared with the 10 to 15 per cent asked for and the 2.5 to 3 per cent offered. The Scientific Assistant class received the largest increase with the minimum of the scale being increased from £490 to £550 and the maximum from £1,253 to £1,395—very near to that demanded by the IPCS. The total award amounts to a 7.5 per cent overall increase and will cost the government nearly £2.5 million annually.

The Civil Service Department has cause to be pleased with the award as Mr Mustill, QC, the tribunal chairman, and his fellow members, state that "the award seeks to apply the principle of fair comparison and pay research that also takes into account the special features of a scientific career in the Civil Service".

The IPCS has argued vehemently against this principle (see *Nature*, **232**, 512; 1971) and believes that the pay of the scientist should be based solely on internal relativities. Mr William McCall, the general secretary of the IPCS, considers the award to be thoroughly unsatisfactory and he said last week "(the award) has attempted to produce a compromise between internal relativities and pay research. What it has achieved in fact is a complete mess. The award resolves none of the basic issues involved in the arguments to the tribunal. Indeed, the award marks the beginning of a dispute, not the end of

it. It is plain from the statements of cases submitted to the arbitration tribunal that the salaries indicated by internal relativities cannot be reconciled with pay research information".

The IPCS will face an uphill task in its campaign to determine scientists' salaries in the future by some means other than pay research. Most other salaries within the Civil Service are directly or indirectly determined by pay research, and it will need a very strong case to place the scientific classes outside this scheme. The IPCS is confident, however, that this can be done, and at the moment is pressing for a joint review body of the Civil Service and IPCS to be set up to decide how scientific salaries are to be determined in future. As yet there is no reaction from the government to this suggestion, but it does seem likely that round two is about to start.

### ELECTRONICS

## Microcircuit Trouble

THE British microcircuit industry is in decline as the world demand for integrated circuits continues to dwindle and overproduction increases. Companies are now faced with the extraordinary situation in which integrated circuits are being sold in the United States for less than the estimated cost of the raw materials and at only slightly higher prices in Britain. Manufacturers such as GEC-Marconi seem to be resigned to cutting production and closing factories.

What has caused such a state of affairs in which an American company, Texas Instruments, can now sell for £0.05 an integrated circuit that would have cost £3.00 in 1967? The first thing to say is that manufacturers of integrated circuits throughout the world are experiencing similar difficulties. Overproduction in the past few years has been the inevitable result of a rapid increase in production efficiency—better crystal growing techniques and a smaller rejection rate for completed circuits, for example—coupled with a reduction in the rate of increase of world demand. Companies that expanded their manufacturing facilities a few years ago, and then gritted their teeth while prices tumbled, are now obliged to prune manufacturing capacity thus losing skilled workers and running the risk of falling behind technologically. Those companies that can resist this inexorable process will presumably reap the benefits eventually.

During the past few months GEC-Marconi has announced the impending closure of its integrated circuit factories at Witham and Glenrothes after sustaining a loss of £1 million on these activities in 1970. Mullard lost £1.4 million

on its microcircuit sales last year and Texas Instruments has made several hundred people redundant at its factory in Bedford. The state of the British market during the past few years is shown in Table 1; price reductions and the small growth in demand have both contributed to the relatively meagre increase during 1970.

**Table 1.** Annual Sales of Microcircuits in Britain

1966	£2.6 million
1967	£4.8 million
1968	£7.8 million
1969	£15.4 million
1970	£17.0 million

About half of the British integrated circuit requirements in 1970 were imported and 43 per cent of these were supplied duty free from the Free Trade Area and from Singapore (where they are chiefly manufactured by American companies). Most of the other imports were of integrated circuits manufactured in the United States and packaged in cheap labour areas such as Taiwan, Korea and Portugal; these are still relatively inexpensive in Britain in spite of the 20 per cent tariff.

The total British market is much smaller than the domestic market in the United States (about £180 million in 1970) and fluctuations in the American market obviously have serious repercussions in Britain as American manufacturers try to keep production lines going by continuing to sell at a loss. Some Members of Parliament have indeed suggested that integrated circuits are being dumped in Britain and have called for additional tariffs or import quotas, but there is no doubt that dumping, in the strict sense of the word, cannot be taking place when the same integrated circuits are being sold more cheaply in the United States.

### ENGINEERING

## More Grades Invented

THE Privy Council has now approved the request by the Council of Engineering Institution to set up an Engineers' Registration Board (ERB) providing a composite register of Chartered Engineers, Technician Engineers and Engineering Technicians. The ERB will comprise institutions and societies that are involved in education and training of their members in one of the above categories.

The aim of the ERB, according to the Council of Engineering Institutions, is to rationalize the qualifications of engineers and to give the engineer an identity. The three classes of membership suggested will carry the letters C.Eng., T.Eng.(CEI), and Tech.(CEI),