OLD WORLD

SCIENTISTS' PAY

Continuing Dispute

THE date for arbitration of the pay dispute between the members of the scientific civil service, represented by the Institution of Professional Civil Servants, and the Civil Service Department has been fixed for August 12, and, if necessary, August 13, at Church House, Westminster. The proceedings of the arbitration inquiry will not be held in public, even though the Institution of Professional Civil Servants had been hoping to arrange either that the inquiry would take place in a hall sufficiently large to accommodate some hundreds of its members, or, alternatively, that the proceedings would be relayed to a room elsewhere.

Between now and the arbitration date, the institution has also arranged a series of public meetings which are expected to provide good business for the shrunken telegraph service of the British Post Office Corporation in the shape of messages to members of parliament. With an eye to the staff of the Atomic Energy Research Establishment at Harwell, a meeting has been arranged for Friday, July 16, at the Fitzharris School, North Court Road, Abingdon (8.15 p.m.). It is hoped to arrange a meeting at Portsmouth on Monday, July 19, at the Civil Service Club and a meeting at Reading on Wednesday, July 21, at the Great Western Hotel (6.30 for 7.00 p.m.) and at the Cooperative Hall, Western Road, Weymouth, on Thursday, July 22 (7.00 for 7.30 p.m.).

The Institution of Professional Civil Servants intends to bring its campaign of publicity to a climax with a public meeting at the Central Hall, Westminster, on Tuesday, August 10.

The statistics available to the Civil Service Department do at least give the lie to the suspicion that the pay dispute has arisen at a time when the strength of the scientific civil service is declining. Since 1965-66, for example, the number of Principal Scientific Officers has increased from 1,530 to an estimated 1,748 in the current financial year. Similarly, the number of Senior Scientific Officers has increased by almost 20 per cent to a total of 1,244 and there is an even larger proportionate increase in the number of Senior Principal Scientific Officers (whose salaries are determined by a different procedure from that which has occasioned the present dispute) from 541 in 1965-66 to 668 in the current financial year. During the same period, the numbers of Senior Experimental Officers have increased even more dramatically, from 1,471 to 2,090. By comparison, the numbers of scientists

in the recruitment grades have increased less quickly over the years, suggesting that the managers of the civil service have done what they can to lessen the pressure on pay by increasing the numbers of comparatively senior posts available.

MINERAL RESOURCES

Metals or Mountains?

THE announcement last week by Sir John Eden, Minister for Industry, of grants totalling up to £50 million to aid mineral exploration of non-ferrous metal ores, fluorspar and potash in Great Britain is certain to be welcomed by the mining companies and equally certain to be regarded with reserve by the conservation lobby. The minister, in announcing the scheme, in which the government will contribute up to 35 per cent of the cost of exploration and evaluation, stressed that the normal planning controls under the Town and Country Planning Acts would still apply. In spite of these reassurances, such a scheme, with full ministerial backing, is bound to increase the pressure to grant planning approval in any part of the country.

The confrontation with the conservationists arises because these minerals are found in older rocks which make up the mountains of Britain. These are also the areas where most of the National Parks are found. Before the present scheme was announced, the Rio Tinto-Zinc Corporation applied for permission to prospect within the Snowdonia National Park. The inquiry into their application was held last March and the decision of the Secretary of State for Wales is expected soon.

The announcement of the scheme comes at a time when the richer and more easily mined ore fields in other countries are being worked out. There has been no large scale mining in the UK since the end of the nineteenth century when the low quality of ore coupled with the mining expansion abroad eventually made it uneconomic to continue mining. But developments since then in mining techniques as well as the high cost of importing these minerals (£600 million a year) have made it economic to mine low quality ores.

Some lead and zinc are being produced as by-products of fluorspar mining in Derbyshire but the only non-ferrous metal currently being mined on any scale in Britain is tin in the west of England. There are, however, known to be deposits of copper, tungsten, gold, barium and uranium. The extent and quality of the known deposits are mostly unknown and the aim of the grants is to encourage mining

companies to prove the mineral resources of Britain.

The government will recover the grant with accumulated interest if a successful mine results from the exploration. Sir John also pointed out that as well as the economic advantages of new mines, chiefly on the balance of payments, there would also be more jobs in parts of the country where they are most needed. Such advantages must, however, be weighed against the possible damage to the countryside if wholesale mining were allowed to take place.

Stars in Rock

by our Soviet Correspondent

ANCIENT rock carvings in Armenia (dating from 8000-1000 BC are reported to have revealed a considerable degree of astronomical knowledge in their makers. The carvings, which have been found at various sites in the Armenian highlands, indicate that the then inhabitants of the region divided the year into twelve parts, revealing a fairly good understanding of the length of the year and of the lunar month.

The most detailed astronomical carving is one in the Martuni region of the Sevkar foothills. Here the carving is exceptionally deep and a great deal of detail is preserved. It shows, on the left, the three bright stars of *Cygnus* in a line, with the sizes of the stars roughly proportional to their apparent brightness. Beside them is a pictogram of two men holding a serpent above their heads. This, says Dr B. Tumanyan, Director of the Observatory of the State University of Erevan, indicates the great antiquity of the constellation name of the Serpent-Bearer (*Ophiucus*).

In the top left hand corner of the picture, there are numerous dots and crosses representing the stars of *Delphinus* and the part of the Milky Way between *Aquila*, *Delphinus* and *Sagitta*. At the top there are pictograms of a sword, a shield and two crosses and a triangle, in the section where *Cygnus*, *Lyra* and *Vulpecula* should lie. The layout makes it quite clear that the pictograms represent the stars of this area, and thus indicate very primitive groupings and names for these stars.

According to Dr Tumanyan, detailed study of the carving suggests that it dates from c.3000 BC.