

partner, and ultimately settled down to development and extension of the floricultural side of the firm's activities, his outlook and experience being afterwards enlarged by visits to California and South Africa.

Mr. Sutton had a keen, refined sense of the aesthetic and cultural merits of flowers in general, and possessed an unerring intuition of the charm of old favourites and the floricultural possibility of new introductions to the garden, such as the South African *Nemesia strumosa* and allied species, which may be arranged to provide a glorious display of colour almost throughout the year. Belonging to the old school of plant breeders, Mr. Sutton paid special attention to the observation of small differences and the repeated selection of these in the evolution of improved forms. He was, however, fully alive to the value of a knowledge of Mendelian laws of inheritance in the practical improvement of garden plants. He wrote very little, but his un-

pretentious little volume—an extension of a lecture delivered before the Royal Horticultural Society—on garden annuals, is a charming introduction to the beauty, variety, and cultivation of this gay group of plants for which he had such an intense love.

Mr. Sutton took an ardent interest in educational affairs, and at the time of his death was president of the Council of the University of Reading; his inspiring presence and sound judgment will be greatly missed.

WE regret to announce the following deaths:

Dr. Bedford Pierce, past president of the Psychiatry Section of the Royal Society of Medicine, on July 8, aged seventy years.

Sir Richard Threlfall, G.B.E., F.R.S., chairman of the Fuel Research Board, on July 10, aged seventy years.

News and Views

Colloidal Fuel

TOWARDS the end of the War, when the demands for oil for naval purposes exceeded available supplies, efforts were made in America to make the oil go further by admixture of pulverised coal to give a blend called 'colloidal fuel'. Coal is appreciably heavier than oil, and it is obviously essential to prevent segregation of the components when blended. According to the American patent literature, stable solutions were obtained by suitably grinding the coal and by the incorporation of a stabilising 'fixateur', for example, a soap solution or a lime rosin grease. Great publicity was given at the time to this work, and the advantages of such blends were recognised. The coal-oil blend was heavier than water, could be stored under water, and was therefore 'safe' to store, while its calorific value per gallon exceeded that of oil. The lower price of coal reduced the cost of the unit of heat in the oil. In spite of these advantages, when oil again became freely available 'colloidal fuel' passed into the background. The subject was discussed in the House of Commons on July 5, and Mr. Foot, Secretary for Mines, referred to the experimental work which has been carried out by the Cunard Steamship Co., Ltd. This Company has continued investigating the possibility of blending coal with oil, and one of its liners, the *Scythia*, has just made the round trip between Liverpool and New York with one boiler fired solely by 'colloidal fuel' containing 40 per cent of coal.

ACCORDING to a report in the *Times* of July 6, the technical staff of the Cunard Company is entirely satisfied with the performance of the fuel. The burners gave no trouble, the ship's deck was free from grit, and the blend retained its stability. No details have been disclosed as to the mode of preparation, but it is claimed that the blend will retain its stability for three months. 'Colloidal fuel' is of obvious importance to European coal-producing countries, and

the importance increases as coal tends to cheapen. Authorities agree that for ocean liners and naval vessels, oil fuel has such advantages over lump coal that even price loses its importance. When coal is pulverised, it acquires some of the advantages of a fluid, but a ship is scarcely the place to manufacture fuel. If a satisfactory blend can be made ashore and taken on board by pumping, the position will be greatly improved. Clearly the problem deserves the closest investigation, and the studies of the Cunard Company may be contrasted with the futility of a deputation of coalowners begging the Government to compel the Admiralty to burn coal instead of oil. Much oil is also being used in land installations, and the fuel should be equally applicable for these.

Professional and Technical Workers in the Civil Service

THE tradition that professional and scientific men should be passed over by authority when the personnel of Royal Commissions and other public inquiries are under consideration is well established and has frequently been the subject of comment in these columns. Recently, however, this attitude towards the expert has expressed itself in a new form. It happens that in the negotiating machinery which deals with economic questions concerning the civil service as a whole the existence of the expert has been recognised, in the constitution of the National Whitley Council, by the formal inclusion of the Institution of Professional Civil Servants as one of the three representative groups of staff associations. Recently, as is generally known, negotiations have been proceeding between the Government and the staff associations through the medium of the National Whitley Council regarding the future of the bonus system in the civil service. At one stage in the negotiations the authorities desired to convey to the staff side of the National Council certain important alternative proposals dealing with the subject under discussion, and for this purpose