



The Great Britain, beached near Port Stanley, Falkland Islands, before being refloated last month.

Falkland Islands since 1937, was successfully refloated last month and transferred to a pontoon on which she is being towed back to Bristol. She left the Falklands on April 24, minus her rear mast which has stayed behind as a souvenir, and is due to arrive in June or July at the dockyard from which she was launched in 1843. Here the ship will be restored to her original external condition during the next two years. Designed by Brunel, the Great Britain was the first ocean-going vessel to be built of iron and driven by propellers.

CONSTRUCTION

Bagasse in the Bag

A FILE of rotting sugar cane residues may seem so much rubbish, but to Mr Charles Wright, of Charles Wright Developments Ltd, it represents a waste of good building material. In places such as Trinidad, where there is a serious shortage both of construction material and housing, any waste of possible building material is particularly unwelcome. But people who work with sugar cane residue which is called bagasse, often contract a fatal respiratory disease known as bagassosis. Mr Wright believes that he has found a way to render bagasse relatively harmless, and that his process will pave the way to the production of fibre board from bagasse in sugar producing areas.

The process he has developed consists of spraying dried bagasse with propionic acid. This removes a thermophilic microorganism that feeds on small amounts of sugar left in the bagasse, and seems both to make the material safe to work with and to prevent it from going mouldy. The advantages of being able to exploit a cheap indigenous material for construction are considerable, and there is also the possibility of using bagasse for the production of paper and even rayon. Mr Wright has taken out patents for his process in all sugar cane producing countries, and is at present costing the proposals.

The chief problem with making fibre board from bagasse is that vast amounts of dust are created when

the material is pulped which can set up irritation of the respiratory system. Removal of the microorganism will help, but hitherto the pulping process has had to be carried out entirely under water. Because propionic acid is not toxic when used in small quantities—only 1 per cent by weight effectively stabilizes bagasse—the discovery could also help with treating other hazardous industrial dusty materials, such as cork.

WEATHER SATELLITES

Meteor Aloft

THE third satellite in the Meteor series of Russian weather satellites that was launched on April 28 joins the two put into orbit in October 1969 and March 1970 and considerably extends the scope of the Soviet weather forecasting service.

As with the Molniya communications satellites, the Russians again favour a multiple, low altitude satellite system, as against the American predilection for high geostationary satellites. The latest Meteor has a perigee of 637 km and an apogee of 736 km, with an inclination to the equator of 81.2°. On-board equipment includes TV cameras and infrared detectors to measure the heating capacity of reflected sunlight.

An announcement issued by the Soviet news agency *Novosti* claims that the resolving power of the on-board equipment is three times as good as "similar" weather satellites of the United States. Since the American satellites operate under orbital conditions that are hardly "similar", such a comparison seems somewhat hard to justify. No such claims, however, were made by the head of the hydrometeorological service, Academician E. K. Fedorov. In a *Pravda* interview, after describing the initial excellent transmissions received from the satellite by the Moscow, Novosibirsk and Khabarovsk ground stations, he preferred to stress the significance of these satellites as "a clear example of the use of space for peaceful purposes in the interests of the national economy", and to look forward to the achievement of the ultimate aim of global long range weather forecasting.



Mr L. J. Warner from Berkshire has won the title of "Wildlife Cameraman of 1970" for this black-and-white photograph of a leaping vixen. The photograph and other prize-winning entries in a competition set up by the magazine *Wildlife and the Countryside* are on show at an exhibition which has been arranged by the Council for Nature and the Nature Conservancy at the Art Federation Gallery, 6½ Suffolk Street, London SW1.