artistic or gimmicky. In the first category a very light turbine engine, an automatic brake condition indicator and a camera capable of a shutter speed of less than one hundred-millionth of a second were among the items on view. Several firms proclaimed their prowess through pamphlets and rather minor products. Computer Technology Ltd perhaps caught the spirit of the exhibition best with a small computer which asked the visitor questions about his job and conducted a brief psycho-analysis. This technique, in which each question posed by the computer is dependent on previous answers, is designed for opinion research.

Among the household items was a flower pot designed to maintain a steady trickle of water in the gardener's absence, a new type of safety window for schools and hospitals, and for a wider audience a typewriter with keyboards in Japanese, musical notation or what you will. The National Reference Library had an interesting stand, and one of the other items that earned widespread approval was that showing a spring-loaded traffic sign which simply distorted itself by ninety degrees on impact.

Some of the products on display required an agile imagination to be considered as new inventions, and although whimsicality must necessarily have a place in an exhibition of this kind many people will have doubtless felt some disappointment that there was not more to stimulate the inquisitive mind.

SOCIETIES

Unmilitant Engineers

THE militant activities of Mr Clive Jenkins and his colleagues at the Association of Scientific, Technical and Managerial Staffs—the enlarged version of ASSET—appear to have hardened the resolution of the chartered engineers to steer clear and to set up instead a kind of engineers' "BMA". This body is intended to play a similar part to that of the BMA or the Institution of Professional Civil Servants in negotiating salary scales and other working conditions for its members without waving the banner of strike action.

The position at the moment is that the Registrar of Friendly Societies is casting his eye on the claims of chartered engineers to be registered as a friendly society, and that the draft of a rule book is in the hands of a solicitor. The enrolment procedure for those engineers who may wish to join the new body is intended to be through the Engineers' Guild.

Status or prestige apart, do the engineers really need such a new body? Will it really be able to rectify any injustices in the engineering industries? A spokesman for the Engineers' Guild claims that, whereas engineers have had the services of the Council of Engineering Institutions to look after their academic needs, similar attention has not been paid to their financial needs. There are felt to be some notable disparities within Britain, both in the salaries and security of engineers, which particularly affect those in the Midlands. It is also felt that the particular idiosyncrasies of chartered engineers require them to carry out their negotiations independently of engineers in allied fields, although the freedom from political affiliation or affiliation to the TUC is clearly an important factor in the argument.

The supporters of the new union are hopeful that the 120,000 or so potential members will respond to the call to join, and that it will soon have sufficient members to be officially recognized as a negotiating body.

SPACE

Mars, Venus and Beyond

THE Soviet Union is obviously not going to let the Moon go to the Americans by default. The past week's flurry of Soviet launchings—two Venus probes (Venus 5 and 6 launched on January 5 and 10 respectively) and then another manned Soyuz (January 14)—demonstrates the persistence of Russia's explicit long-term programme—"exploration of the Moon *and* the planets". It is perhaps just possible that by employing an Earth-orbital strategy and building up a space station, the Russians may overhaul the American lead in the manned landing stakes, but they still have a long way to go. What seems more likely is that they will continue steadily with manned shots and in parallel will spend more effort on the planets, at least for the time being, with unmanned spacecraft. The Russians have already launched about twice as many planetary probes as the Americans and, in terms of payload, the discrepancy is more like 4 to 1. The programme's culmination so far was the probing of the Venusian atmosphere by a slowly descending landing capsule from Venus 4 a little more than a year ago. The Americans have not so far attempted a landing on any of the planets; this year they are not going to launch for Venus at all and their planetary programme generally looks very much the poor relation of Apollo.

In mid-February, the Mars window opens and NASA is to launch two enlarged Mariners to make a close fly-by. It will be surprising if the Soviet Union lets this opportunity pass.

The chief purpose of the two Soviet Venus probes now on their way to the planet (and each weighing over a ton) is to clear up the confusion over the Venusian atmospheric and surface temperature and the chemical composition of the enveloping cloud. The Soviet Venus 4 and US Mariner measurements last year did not agree. Soviet scientists now seem to have accepted the American interpretation that the spacecraft was not actually at the surface when it gave its final (and highest) reading, 280° C, so that the surface may be considerably hotter, as indicated by the instruments of Mariner 5 using another method. It seems that both the new Soviet Venus probes will make a soft landing, but one will descend on the sunlit portion of the planet while the other lands on the dark side. Arrival is expected in the middle of May. The Alma-Ata observatory in Kazakhstan succeeded in photographing Venus 6 as it passed over at a distance of 100,000 km on January 10.

In the meantime, the NASA Jet Propulsion Laboratory is putting the finishing touches to two improved Mariner spacecraft which are due to observe different regions of Mars in July and must be launched between mid-February and mid-April. A total of sixty-six television pictures of the planet is scheduled as the main experiment to be carried out during fly-by at about 2,000 miles above the surface. This is a factor of ten up on the 1965 photographs, the first ever to be

obtained from near to (20,000 miles). One Mariner spacecraft will fly over the south polar cap and the other over the equatorial zone. These spacecraft are nearly twice the weight of their predecessor, 900 lb each instead of 565 lb.

MUSEUMS

Ships at Greenwich

THE accompanying contemporary print of the interior of a "first rate" ship of the late seventeenth century is one of several items from the strongroom of the National Maritime Museum, Greenwich, recently to have gone on display in the Queen's House. It is currently part of a special exhibition of "The Wasa, and her Place in History" centred on a small travelling exhibition illustrating the recovery and relics from the famous seventeenth century Swedish "admiral" ship which went down in Stockholm harbour at the start of her maiden voyage and was raised intact in 1961. When the Wasa travelling exhibition moves on, however, many of the newly displayed museum items will remain on view. The National Maritime Museum has a unique collection of early ship models, drawings and oils. The excellent ship models alone are worth a visit. The delicate wash sketches of Renaissance ships by Van de Velde now in the Queen's House have not been on view for many years. They appeal strongly to modern taste—not least in their evocation of the misty northern waters in which these ships operated.

The current exhibition and the new exhibits are well set off by the redecoration to the seventeenth century Queen's House which forms the centre building of the museum complex. Redecoration has just been completed under the museum's new director, Mr Basil Greenhill. An effect of subdued richness has been admirably achieved by the Ministry of Works' architect, Mr H. G. Yexly, and is believed to be authentic to Inigo Jones's design for Charles II's queen, Catharine of Braganza. There are traces of the original paintwork on the balustrade round the gallery of the Great Hall.

MEDICINE

Costly Transplants

WHILE the ethical and legal problems of organ transplantation have been repeatedly thrashed out, comparatively little consideration has been given to the allocation of resources between this specialized form of treatment for the chosen few and the more conventional and less demanding treatments which are available to all. Last June, however, the annual representative meeting of the British Medical Association asked the association's Planning Unit, under its director, Professor Henry Miller, Vice-Chancellor of Newcastle University, to look at the problem of financial priorities in medicine. The conclusions reached by the unit are set out in a report, *Priorities in Medicine*, published last week.

The report strongly rejects the view that transplantation should be neglected or discouraged in the "dubious expectation that this would in some way lead to much-needed improvements in the quantity or the quality of existing services". On the contrary, it believes that organ transplantation and mechanical organ replacement are of enormous potential benefit and should be the subjects of vigorous clinical research. At the same time, however, it emphasizes that the greatest immediate encouragement should be given to those forms of transplantation which already offer practical benefits to a large number of patients. For the present at least, resources for an accelerated programme of "relevant scientific research" should take priority over National Health Service provision for heart and lung transplantation.

In spite of the high cost of renal transplantation—about £6,000 per patient—this procedure is stated to be a better investment than long-term dialysis; the patient enjoys better health than the subject of dialysis and requires much less medical attention.

Design for a warship in 1680 (National Maritime Museum).