

are rapidly replacing contaminated King Edwards throughout Britain with spectacular results.

Kassanis cultured the first King Edward meristems in 1955. The method he used involves removing the 200 micron wide growing point—the apical meristem—under the microscope. This is then grown in sterile conditions on nutrient jelly where, after 3–5 months, a small plantlet develops, which is large enough to be grafted or grown on soil. Those plantlets that passed stringent virus tests were allowed to produce tubers and then to multiply in special seed producing areas. Until 1957 the tubers were being produced in a glasshouse at Rothamsted, from where they were distributed to seed producers and the National Institute of Agricultural Botany at Cambridge. By 1967 their progeny occupied 84 per cent of the acreage of King Edwards grown for certified seed in Scotland. Within a few years they will almost certainly occupy most of the 100,000 acres planted with this variety in Great Britain.

In the past, when paracrinkle infected all King Edward crops, the Majestic variety outyielded King Edward by 10 per cent or half a ton per acre. Majestic does not develop paracrinkle. In the past two years virus-free King Edwards have been beating the Majestic yield by half a ton per acre. If the British acreage under King Edwards remained constant, Rothamsted scientists point out that the additional yield from the 100,000 acres planted with paracrinkle-free potatoes would be worth about £2 million per annum. This would be enough to defray all the costs of Rothamsted. It is considered to be one of the best returns for negligible expenditure lately achieved in agriculture. It is rarely that plant pathologists can claim to be on the verge of eliminating a major disease so cheaply and with such benefit.

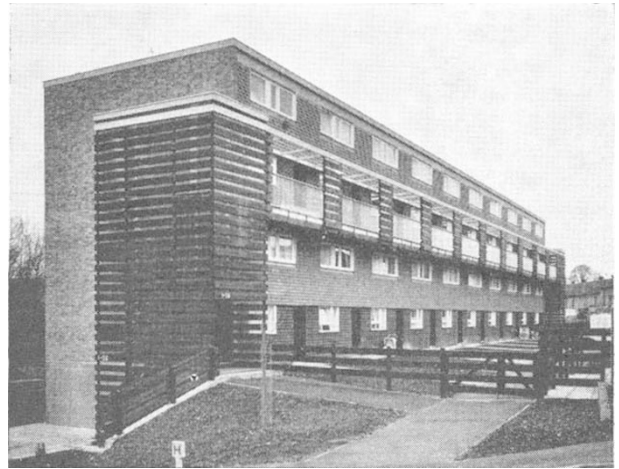
Making Good Use of Timber

DURING the past five years one of the many projects occupying the Timber Research and Development Association (TRADA), which moved to Hughenden Valley near High Wycombe early in 1967, has been the development of techniques and standards for the construction of timber frame housing. During 1968 the last data sheets of a *Design Guide for Timber Frame Housing* are expected to be published. As TRADA's annual report says, this guide has already sold 970 copies, a sign of increasing interest in this type of housing which is making a considerable contribution to industrialized building methods.

After developing a scheme for timber framed construction in two stories, TRADA went on to four stories for the first time in Britain, designing two blocks of twenty maisonettes for Wycombe Rural District Council for the Glory Hill estate at Wooburn. The framework is constructed from preformed two storied timber framed components on a reinforced concrete base. These components can be erected quickly and serve as a framework for the brickwork which is built between party walls and on the outside of the flanking walls. The timber frames are erected to full height, roofed in and made weatherproof at an early stage of construction, and work on the interior can then begin.

The standards already available for timber frame houses are mostly North American and not applicable in the British climate, and so for two years a member of the biology and chemistry section of TRADA has

been living in one of the maisonettes measuring temperature and humidity. The moisture content of the timber—very important because damp timber will rot—has been measured by inserting small pieces of timber into holes bored in the plasterboard lining of the walls; these can be removed after a month and their moisture content measured. Results so far seem to indicate that little change will be required in the standards of construction already adopted.



One of the two blocks of twenty maisonettes designed by the Timber Research and Development Association for the Glory Hill project.

The other sections of TRADA have been engaged in a variety of projects during the past five years. The engineering section, for example, was asked to design a portable cycle track for the 'Skol' international six day race in 1967. The timber handling section has been engaged in a softwood handling project due to be reported this year, and the biology and chemistry section has been carrying out exposure trials of timber in the sea to find the timbers which show the best resistance to attack by marine borers. White cypress pine has shown the best natural resistance to attack.

The completion of the new testing hall at TRADA has added to the scope of investigations that can be carried out on behalf of member firms. During 1966–67 the number of enquiries dealt with by the advisory services section increased from 20,266 to 23,894 at the building centre in London, and from 11,960 to 12,877 at the five regional offices. During 1967 many new courses were introduced by the training section of TRADA, which runs courses, largely for the timber trade, in the lecture room at Hughenden Valley.

Drugs for All

REFORMERS who would like to change the law on some topical aspects of surgery and drug dispensing would have taken little comfort from Professor L. Cowen of Rutgers University when he spoke at the meeting of the British Society for the History of Pharmacy on June 12. Speaking about "Liberty, Laissez-faire and Pharmacy in Britain", Professor Cowen discussed the effect of the eighteenth century ideas of personal freedom on the course of medical and pharmaceutical legislation throughout the following century. Although the influence of philosophical argument is evident, it