

and Development of Industries Committee, a comprehensive investigation is being made of the attributes of *Phormium* from the point of view of textiles, and arising from these investigations improved methods of decortication are approaching the final stages of development. It is not generally realized that much fundamental spade work needs to be done on the characteristics of the fibre as a guide to proper treatment before a large industry can be founded on *Phormium* for new avenues of utilization such as textiles, or for improvements of the finished fibre for cordage, and for other uses. I took the opportunity in Bradford of discussing with experts the attributes and suitability of woolpacks made from *Phormium* and was assured by all concerned that every assistance would be given in the development of packs for the trade. The prospects of *Phormium* seem reasonably hopeful if orderly development is pursued.

### BUILDING RESEARCH STATION.

From the point of view of its value as a social service the British Research Department has established a Building Research Station at Watford, and I found a visit to this Station of great interest. At first sight one might be inclined to think that research in such directions can hardly be practicable, but the esteem in which the Station is held by the building industry and architects and their active co-operation in the work show that it fills a very real need. The Station has made investigations, for instance, into the quality of bricks with a view to advising the manufacturer and building contractor and to setting up standards of quality which will safeguard both consumer, architect, and reputable brick-makers; similarly, in regard to cement and the principles of steel structure for building construction so as to obtain maximum strength at minimum cost. This work is of considerable value to New Zealand, where the results are now being applied by the special committee dealing with earthquake construction.

One interesting feature of the work of value to New Zealand was the use of certain types of volcanic ash for concrete and mortar. Such material imparts valuable properties to cements, endowing them with resistance to chemical attack and enabling a smaller proportion of cement to be used. Samples of our ashes had previously been tested by the Dominion Laboratory and also sent to the Building Research Station, and it is pleasing to note that some of them have the desired properties which, interestingly enough, are the basis of the old Roman cements, which are alleged to be stronger than the stones which they bind together.

Many other interesting lines of investigation were being pursued with practical results, including methods of testing the stresses and strains of piles, girders, &c., with a view to more economic design, heating and ventilation problems, &c., all assisted by grants from the building industry.

I was so impressed with this work that I arranged for a more direct linkage with this work with the results in connection with our New Zealand problems. There is no doubt that such work as I saw being carried out must have considerable effect on the cost of houses and the suitability of buildings to local conditions.

### LEATHER AND PELTS.

The real advantage which scientific assistance can prove to an industry is well exemplified by the activities of the Leather Research Association. Contributing tanners have constantly been in receipt of scientific guidance in all their processes, with the result that the industry is economizing in costs in producing leather of such quality as enable it to withstand more and more successfully the competition of imported material, and, further, has been enabled to produce new types of leather which previously had to be secured from abroad. Of special interest has been the work done upon efficient methods of securing maximum tanning extracts from bark, and on the influence of dissolved salts and of oil in the wearing quality of sole leather. The value of the research work to the tanners has been greatly enhanced