

full satisfaction of legitimate needs and preferences. It therefore correspondingly reduces the production and distribution costs of the commodities and the related services, to which this principle is applied. This view of the value of the standardization activity that has been carried out under wartime necessity is soundly supported by most responsible, authoritative statements from overseas.

Reduced Production Costs

Some impressive examples of greatly reduced production-costs resulting from standardization are quoted by the British Institution of Production Engineers in support of the conclusions of this body, published in the *Economist*, 18th July, 1942, concerning the significant influence that standardization must have upon the post-war reconstruction, on the basis of what has been achieved in connection with war production. Six examples are quoted, relating to parts used in the manufacture of guns and the production of munitions and aircraft. According to the figures quoted, each £100 of production cost was reduced to £4 16s., £22 8s., £22 12s., £33 12s., £36, and £66 14s. respectively. Commenting on these conclusions, the Institution of Production Engineers draws attention to the substantial reductions in production-costs that are gained by the higher degree of specialization, facilitated by standardization, through a reduction in the redundant variety of products, only immaterially different, produced by individual firms.

In the same report Mr. Oliver Lyttelton, Minister of Production, is reported as having quoted six further examples showing similar reductions in production-costs, two of which amounted to 95 and 96 per cent. There seems to be no reason why similar reductions cannot be achieved in the production-cost of mechanized apparatus and equipment which will be required on a growing scale to satisfy normal peacetime requirements in relation to farm machinery, capital productive equipment, and domestic apparatus, including, for example, sewing-machines, vacuum-cleaners, and refrigerators.

That similar reductions in production-costs can be secured in the production of civilian goods such as clothing and footwear is established by a statement recently published in *The Times*, London, which reported an average increase in production, resulting from standardization and simplification estimated at some 20 to 30 per cent., while, in particular cases, such as certain types of men's underwear, it had amounted to from 200 to 300 per cent. This article also made it clear that, due to these results, a considerable amount of thought and attention was being devoted to the application of the same principles to peacetime production in the post-war period.

The importance of this aspect of standardization is further emphasized by Sir Thomas D. Barlow, Director-General of Civilian Clothing, who is reported to have stated: "Control and standardization are not synonymous. A minimum standard of quality, without any maximum, could," he said, "safeguard old and reputable manufacturing firms from the unjust criticisms cast upon them in pre-war days when they were the victims of unscrupulous competitors who produced rubbishy but cleverly presented goods, the wearing and other qualities of which were so bad that they reflected upon our textile industry in general. Control to the extent of fixing a minimum standard of fabric-construction," he continued, "should eliminate this, guarantee to the public a reliable investment for money spent, and yet permit every one to indulge in his or her tastes."

Still further endorsement of this view is contained in the *Times Trade and Engineering Supplement*, March, 1942, which states: "Distributors who know something about costing are admittedly surprised that these goods [*i.e.*, standardized underwear] can be sold at the regulated prices even in the light of the slender margin of profit allowed to everybody concerned. The explanation lies in standardization without uniformity. In this factor," the statement continues, "lies the lesson for post-war trade as well as for the present emergency, for it shows what extensive economies were practicable."

There is, therefore, cumulative evidence that standardization will exert an important influence on post-war production and competitive trade, in that the countries which apply this principle most extensively and successfully will enjoy the competitive advantage of correspondingly reduced production-costs and lower prices. One authority from the United States of America refers to this aspect of the post-war position in the following pertinent terms: "In winning this war through simplifying our industries, we shall enter the peace with a production and distribution system geared to the very highest point of efficiency for whatever competition we may face. Our present necessity may well prove to be our future security."

Assistance to Manufacturing Industries

The deduction is clear that the sound maintenance and expansion of the manufacturing industries within this Dominion during the post-war period, and the consequent opportunity for useful employment and rehabilitation, will depend upon the extent to which our internal market can be held against overseas competition, based on low-cost production. This position can be met only if our local manufacturers adopt the principle of standardization to the same extent as their overseas competitors, in order that they may derive the same competitive advantage of low-cost production. Moreover, there are many demands for apparatus, equipment, and commodities which in the past it has been necessary to import, but which could be economically manufactured here, were it not for the multiplicity of specifications to which these goods are ordered, only because the more sensible procedure of co-ordinating such specifications has not been instituted.

It is certain that, unless such specifications are drawn up in advance, the various producers, consumers, and other affected interests, including public authorities and other large-scale purchasers, will lay down their own requirements independently in respect of each commodity, with the result that there will be immaterial variations in specifications for the same commodities, the only effect of which will be