

This is sound logic. And they did not just talk about it, but gathered teams of well-trained chemists, physicists, and engineers, backing them with the necessary finance (which means equipment and facilities) and turning them loose on the problem. The Du Pont firm in U.S.A. spent several million dollars over a decade on sound fundamental research, one of whose fruits was the new fibre group, known as the "nylons," announced in 1937. Already any Australian woman will tell you how good nylon stockings are, and how she wishes she could get some now. They are made from air, coal, and water—raw materials easily obtained.

The Germans produced another of these resinous or plastic fibres from coal and chalk. A still more recent development is a cellulose fibre made in England from seaweed.

Summarized briefly, the field of competitors in the textile stakes of the world is:—

Natural fibres—

Animal origin: Wool, silk, animal hairs.

Vegetable origin: Cotton, flax, hemp, jute, ramie, &c.

Mineral origin: Asbestos fibre.

Artificial fibres—

Cellulosis origin: From wood-pulp, cotton linters, seaweed, &c.

Protein origin: From milk casein, soya beans, fish-oils, castor-oil, corn-meal, &c.

Resins and plastics: Nylons, &c. (from coal, air, water, chalk, &c.).

Other: Glass.

The price, availability, and the fact that some artificial fibres are best for certain jobs, has had much to do with the great increase in production of these new fibres. Because cotton (average cost, 8d. (Australian) a pound raw) is so cheap it finds its way into fabrics as a linen, wool, or silk substitute. Since silk sold pre-war at about 10s. (Australian) a pound on the average, the artificial fibre manufacturers have tried many times to imitate its properties.

In 1937 raw wool in Australia averaged 12½d. a pound and an average flax on world markets brought 12d. a pound after treating. But the natural fibres need preparation before they pass into manufacture. In the case of wool, this means that of the 1,000,000,000 lb. sold greasy in the present Australian clip, the clean wool obtained after washing or scouring is about 550,000,000 lb. Hence, when Courtauld's staple fibre is priced at around 12½d. (Australia) a pound needs no cleaning, and can be turned out at the required staple length, it has many advantages over the natural fibre.

The production of these new fibres has therefore gone ahead by leaps and bounds. Natural-fibre growers are shaken to hear that world production has approached that of the world wool clip (although it is no more than the greatest fluctuation between annual world cotton crops). The conclusion: artificial production is impressive; artificial fibres are here to stay.

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What is likely to happen in the textile world after the war? Sir Robert Pickard, Director of Research of the British Cotton Industry Research Association, sees "that the trend of textile products is toward mixtures of fibres," and that textile science suggests that, for any specific purpose, there is an ideal fibre or mixture of fibres. If so, should we in Australia sit back and squeal every time we hear about artificial fibres and do our best to decry them? Or should we show some fighting spirit and, besides examining and studying the economic and scientific aspects of the production of our own fibre, also delve into the subject of blending wool with these artificial fibres, so that justice is done to wool in a world of "mixed-fibres" textiles?

Because wool has some remarkable characteristics which so far have not been successfully imitated by its textile competitors (and which the customer will pay for), dishonest manufacturers and shopkeepers often foist on the customer the inferior substitute cloth, under the blessing of the name wool, or merino,