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The Textile Journal of Australia

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FRANK C. MARDEL

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CONTENTS

The Long Term Outlook for Raw Wool

Specially written for this Journal by
A. W. Zelomek, Statistician, Fairchild Analytical Bureau

The laudable desire to pierce the veil of the future is characteristic of many phases of man's activity, but in no case is it more profitable of results and more ardently pursued than in endeavouring to secure a foreknowledge of events as a basis upon which to establish successful business operations. The important question in the minds of most woolgrowers, for instance, is the advisability of maintaining the steady upward trend in the number of sheep and the production of wool which has occurred in the last few years.

The ultimate determining factor will be the possible remuneration or profit to be derived, and that, in turn, will depend upon the probable price trend in the succeeding decade or two. The latter problem rests fundamentally upon the world outlook for raw wool, the potentialities of various world markets, the possibilities in new or undeveloped areas, visible developments relating the extremely significant style factor, and other indicated or foreseeable influences.

In the case of a commodity of such international importance as raw wool, the limits of a single article offer too brief a scope to hope to do more than to cover superficially a few of the more significant influences at work in determining the trend of prices in the near and distant future. It is possible, however, to appraise the current situation and the foreseeable developments; to analyse them in the light of relations which have obtained in the past; and to arrive at a fairly definite picture of the probable outlook. In succeeding articles the writer will discuss outstanding world developments as they affect the wool situation from time to time.

The steady upward trend in the annual output of raw wool in the leading producing countries was pointed out in an earlier article. From all present indications it seems probable that this upward movement will be sustained on a moderate scale in the near future. The outlook for wool prices depends, therefore, more on the probability of increasing consumption than on restricting the supply.

As a preliminary statement it is perhaps not too much to say that present and foreseeable developments suggest that in general the prospect with regard to consumption is conservatively encouraging. Consumption in most important countries will probably tend to increase over the next decade, and in certain areas whose markets are relatively new and undeveloped, a considerable, or even marked, expansion of demand may be anticipated.

The situation in the leading producing and consuming countries may be briefly recalled. In Europe a decided amelioration of the post-war unsettlement in business and politics is already in sight. Industry and trade have been recovering slowly since the catastrophic period of conflict, and are gradually tending to acquire a measure of their pre-war moments.

The virtual settlement of the reparations question has given a great impetus to the industrial rehabilitation which has been going on in the past ten years. It should provide a stimulus to industry and trade in all countries, but especially in several of the leading wool-consuming countries, including Germany, France and England. The definite trend toward happier political as well as economic relations among the various nations will also be inevitably reflected in greater business stability and increased opportunity for industrial growth and progress.

Another factor tending to brighten the prospect is the general stabilisation of currencies and the adoption of the gold or gold exchange standard in most important wool producing and consuming countries. Stabilised monetary systems provide support of an extremely essential nature to an industry such as the wool industry where much of the business of individual producers is dependent either on imported or exported raw materials and finished products. It is obvious how seriously unsettled monetary conditions in even one or two countries which figure conspicuously in international transactions would tend to affect all other countries.

The foregoing factors are subtle and defy precise analysis, but their importance in the case of a commodity like raw wool, which is dependent for its prosperity, not on conditions in one or two isolated and independent markets, but upon conditions obtaining in the world at large, can scarcely be estimated at their full value.

Turning to the prospects for consumption in the leading European countries in the next decade, they should not only reflect the general improvement in the fundamental economic conditions prevailing, but also the inevitable expansion of the purchasing power of the population. The long-run outlook for the majority of the nations is bright.

Even in England, where the future of the wool industry is subject to many hazards, conditions have shown a decided tendency to improve lately, and if the Labour Party can contribute to the settlement of the unemployment question, the outlook for the industry in that quarter is brighter than it has been for a considerable period. France and Germany, likewise, may be expected to figure more and more aggressively in world wool markets in the near future, the former as a result of the steady industrialisation which has been going on since the war, and the latter as a consequence of the gradual recovery of a measure of her pre-war industrial prosperity.

Even more important than France, Germany and England, from the standpoint of sheer expansion of her consumption of raw wool in the future, is Russia. Despite the fact that observers find it difficult to define precisely either the nature or the extent of that country's post-war economic development, it seems evident that conditions in

many respects have grown progressively better since the first chaotic years following the revolution.

A number of indications point to the fact that Russia is becoming an increasingly important factor in the world wool markets. Exports from Australia to Russia for the first ten months of the season just closed gained from nine million pounds to seventeen million pounds compared with the same period of a year ago.

No less important as evidence of Russia's rehabilitation is her increasing ability to command credit for industrial development, reflecting growing industrial stability and productive capacity, as well as the power to impress these qualities on the minds of outsiders and secure their confidence. Russia's purchasing power will expand greatly with her capacity to acquire additional credit, and her consumption of wool ought to increase rapidly.

A country of such size, population and potential wealth as Russia might become an extremely important factor in international markets, and any improvement in demand from that source should be immediately reflected in the world price trend. Even though her development may be delayed for some time, it seems practically inevitable eventually, and one is justified in assuming an attitude of conservative optimism regarding the consumption of raw wool in Russia during the next decade.

Even greater potential markets for raw wool than Russia are certain densely populated oriental countries. China and Japan, in particular, offer fruitful possibilities. The gradual adoption of western dress and increasing purchasing power as a result of steady industrial growth in these areas are among the most powerful constructive influences to be reckoned with in world wool markets in the immediate future.

The cheerful prospect of increased consumption in Russia, China and Japan would seem to provide a sort of stabiliser in world wool markets, which may tend to cushion the ill effects of adverse conditions in other countries, even though their expansibility can hardly be tested in so short a period as ten years. From the standpoint of world consumption, therefore, the long-run outlook would seem to be definitely for an upward trend, although the gain will always tend to be checked by increasing production and consumption of other textile fibres.

It is apparent that the intercompetition among the various textile fibres will grow steadily more intense with increasing supplies, and that the price trend of all of them will be to a large degree interdependent. At the rate that the world has been increasing its supplies not only of wool, but of silk, cotton and rayon, the conclusion is unescapable that production has been anticipating consumption in the entire field, and that the competitive element must inevitably grow more important in the future. In fact, it appears that if woolgrowers persist in increasing the size of their flocks and the slightly upward trend of consumption is not stimulated by some external factors the graziers may face the prospect of gradually diminishing profits. Hence the observer of the price trend of raw wool will have to watch closely not only the world trend of production and consumption of raw wool, but the parallel movements of the other fibres.

Summing up the factors determining the outlook for the next decade, it may be said that the prospects are certainly more cheerful than they were a decade ago. Since wool is distinctly an international commodity, with a price set in international markets, it has probably never faced a gloomier prospect than it did in the dark days following the world war. In comparison with conditions existing then, those prevailing at the present time are infinitely bright. But a spirit of extravagant optimism is not warranted regarding the price trend. It seems hardly possible that a decided upward movement can take place in the light of existing circumstances and foreseeable developments. Rather it appears that wool prices may be expected to receive sufficient support from the upward curve of consumption to be stabilised at levels not far from those prevailing at present.

BRITISH WOOL PRODUCTION AND MARKETING.

The Council of Agriculture for England recently issued an interesting report on the marketing of home-grown wool. It sets out the position that much of the English wool clip is marketed badly; that is, is not cleaned and rid of impurities before selling, and is not sold through the best channels. It has always to be remembered, of course, that mutton and lamb are the chief products of the sheep, and that wool in most parts of the country is a by-product. It is, however, a by-product which can be made to pay much better than it does. The report puts the average weight of a fleece at about 6 lb., which, at 1/6 a lb., gives a return of 9/ per sheep per annum, or on a flock of 200 sheep a return of £90 a year, or on a flock of 2000 £900 a year. But some fleeces may weigh as much as 10 lb., and the price of wool can be over 2/ a pound, so that the return may be much greater.

At the present time there is a tendency in many parts of the world to encourage sheep farming. Mutton and lamb are easily transportable meats, and fetch a good price. Wool is an indispensable clothing material, and finds a good market, especially in the temperate zones, and sheep are useful to manure and consolidate light soils. No wonder, therefore, that the farmers continue to support sheep rearing. Just now, in Manitoba, for instance, there is being formed a special company, with half a million dollars capital, to assist the sheep industry of the province by giving farmers an opportunity of purchasing well-bred sheep as nuclei of good flocks. There is no need to do that sort of thing in this country, which is the home of the best breeds of sheep in existence. What is chiefly needed is to see that existing stocks of sheep do not deteriorate. That easily happens by crossings with inferior sheep. Certainly we have the demand for smaller butcher's joints to consider, which, for some breeds, means a smaller sheep; but we must also look to good conformation, to early maturity and to good wool. There is no reason why a farmer should not breed for all these things together. In the past some have thought that by breeding for better wool they will lower the value of the mutton and the lamb. There seems to be no justification for that view, nor any reason why all the desired things in a breed should not be brought up to the mark together.

Wool Market Review

Specially written for this Journal by "Electa"

ADELAIDE WOOL SALES.

The opening of the 1929-30 season in Adelaide on September 6 created intense interest throughout Australia and to manufacturers in all parts of the world.

Some 27,500 bales were on offer, including clips drawn from the far north, River Rarling, River Murray and Northern Eyre Peninsula.

As a result of drought conditions the clip was below standard style, being very dusty, rather short in staple, but, nevertheless, in most instances in dry condition and finer than usual in quality.

The selection as a whole was suitable for the Continental section of the trade, but hardly acceptable to Yorkshire.

Usual disquieting rumours were afloat prior to the sale, but good competition was forthcoming at the level of values established. Prices could be quoted as showing a decline of 33 per cent. for fleece wools and 25 per cent. for oddments, compared with the opening series last year, and about 10 per cent. below June closing rates. Brokers' bale averages for sale 1, 1929, compared with the similar sale of 1928, show an approximate decline of £8 per bale and 5d. per lb. These figures are surprising, and make an interesting calculation of the total loss to Australia in general on the total offering of these 27,500 bales alone.

France was the main overseas purchaser, and her operators paid good money for all quality fleece wools and oddments, especially bellies, amongst which were some of the best yielding wools on the show floors. Italy bought all the better class deep-stapled wools, and although her purchases were not exactly on a large scale, her help was very important.

Japan and the Australian mills came into competition on the same class of staple, whilst Bradford was content with some of the bolder "down the line" lots classified in Adelaide catalogues as "B" and "BB." Germany's purchases were negligible. Local scourers secured large quantities of "backs," low yielding wools, and some six thousand bales approximately will be put through the bowls in Australia.

No crossbreds were on offer, but it will be interesting to see how these types are received when on offer in Victorian centres on 23rd inst.

Brokers and growers met the market freely in Adelaide, which will certainly help to stabilise the position, and give

millers in the world manufacturing centres a confidence that should ultimately result in a furtherance of buying orders, and thus help in the disposal of the 1929-30 clip.

The estimation made a few months ago by the National Council of Wool Selling Brokers that this year's clip production would show a 5 per cent. decline on last season's aggregate was, at the time, considered in official circles to be conservative, and such has proved to be the case, as the decline at the time of writing is nearer 10 per cent. At the present time the greater portions of the pastoral areas in New South Wales and Victoria are recovering under the beneficial rains that were recorded during the last month.

Although too late to have any effect on the forthcoming production from the earlier shearing districts, the falls have given hope to pastoralists of good summer feed, and the future position, we are glad to say, is much brighter than it has been for some time.

Although the Mallee district of Victoria appears not to have been so fortunate as the rest of the State, useful falls of up to 20 points have been recorded in this belt.

Up to the time of this opportune change in the season, growers were minimising their expenses by drastic clearances of stocks, and the huge weekly totals at the metropolitan sale yards gave a very true reflection of this. In consequence, also, improved business has been done in all fellmongery establishments, large quantities of "skin wools" having been available for sale at prices which appeared reasonable.

Buying representatives here and in Sydney were evidently of the same opinion, and although holding no usual orders, thought it worth while to cable their principals, with the result that last week it was reported that some 5000 bales of these wools were on offer on the Continent, but replies signified "no business," which was rather disappointing and gives a good indication of a wool position on the Continent which does not augur too well for the future.

Some of the executive officers of the larger pastoral houses had been pessimistic to a degree, and the pastoral outlook of a month ago, combined with a wool outlook which was not reassuring, led to publication overseas of magnified reports which are extremely detrimental to Australian credits.

Admittedly things were—and in certain respects still are—not of the brightest, but we have been acquainted with similar positions before and "weathered the storm," and despite the pessimistic and croaker look like doing so again.

WEST AUSTRALIA.

The unassuring pastoral conditions in South Australia are somewhat offset by the pleasing reports received from West Australia, where the season, according to reliable reports, is one of promise from end to end.

Generally speaking, the rains came too late to make any appreciable difference in the size of the incoming clip, but the following year should see an increase in the quantity of wool marketed in that centre.

Owing to dry conditions prevailing when rams were

joined last year, lambings have been poor, and in consequence the quantity of lambs' wool available at the Fremantle stores is likely to be smaller than usual, and buyers will have to look further East for their supplies in this class of staple.

West Australia has made great strides in wool production, and, with the vast possibilities and expanse of country yet to be developed by closer settlement, she will ultimately become one of the largest wool-producing States in the Commonwealth.

The following statistics compiled by the National Council of Wool Selling Brokers are interesting, and show the headway made since 1920-21, while the average price per bale is also given:—

West Australia (Area, 975,920 square miles).

Season.	Total No. of Bales Received Into Store.	Price per Bale.
1920-21	67,138	£13 7 0
1921-22	64,333	15 8 8
1922-23	90,374	24 12 1
1923-24	104,441	31 9 9
1924-25	104,257	31 19 8
1925-26	119,783	21 10 3
1926-27	140,520	20 5 6
1927-28	157,042	25 13 0

U.S.A. WOOL.

At the recent Australian Sheepbreeders' Show there were on exhibition two fleeces of wool obtained from the Ohio Woolgrowers' Association of the United States of America. In view of recent discussions and the marked decline of the United States as a serious competitor and purchaser of the Australian clip during the last few seasons, they created more than ordinary interest.

The two fleeces had all the characteristics usually associated with the original Vermont type. They were of 70's and 64's quality respectively, of fair staple, and would cut extremely heavy weights (about 14 or 16 lb.), proportionately with the size of the shorn fleece.

As a wool proposition the "clean yield" would be very poor and the percentage of yolk and grease would certainly appear excessive and on a lower standard than our wools of the same type. Apart from this "shrinkage," and drawing an idea on to the scoured product, it would appear (judging on these fleeces) that with the help of a small proportion of Australia's clip to assist in the blend, they would possibly be able to exist on their "home-grown clip," for the bulk of their fine manufacturing requirements in wool. From all accounts the demand for wool in the United States is below normal. Serious competition from artificial fibres has had its effect, and fashions on these styles have extended there, even to the lighter summer goods in men's wear.

Reports from Washington inform us that the basic rate on scoured wool is to stand at 31 cents., which is less by 3 cents (1½d.) than the rate that was proposed some months ago.

It is expected that other compensating reductions will possibly be made in the tariff schedule, despite the demands of woolgrowers there for more protection.

MARKETING.

Cables from Bradford voice the opinion that it would be advantageous if the marketing of the Australian clip were confined to a shorter period, but the consensus of opinion here is that the present system of spreading the offerings over six months is quite satisfactory, and both brokers and growers are adverse to any such retrograde step. To force practically the bulk of two million bales on the market prior to Christmas, irrespective of some regular equitable marketing scheme, would be folly.

Again, it must be remembered that to increase offerings would necessitate a show floor representation that in these days of "small clips" would be nigh impossible, and, combined with the curtailment of time, would lead to methods of showing that would not all be conducive to the best interests of growers, or buyers either, for that matter.

Only this week complaints are to hand from quite a number of Bradford firms about falsely packed bales, etc., that were purchased in Tasmania at the "once a year" sale, and where floor showing, under the circumstances, is limited.

(Continued on page 427.)

Interstate Reports

Specially written for this Journal
By Our Own Correspondents

NEW SOUTH WALES

(From Our Special Correspondent.)

Wool Position.

The ruling rates of fellmongered wool disposed of between the seasons give little indication of the strength of the future. So it is with the initial sales of the new wool season. For this reason it is too early to conjecture what the future holds. So many factors are involved. The Adelaide wool sales, which preceded Sydney's first series by three days, offered little to base the season's prospects on. The first series of Sydney wool sales, now in progress, opened on September 9, and will continue until September 18, when, it is expected, 81,137 bales will pass under the hammer. Last season's initial series commenced on August 20.

The general impression prevails among the cognoscenti that prices generally will compare favourably with those of last season, with the Japanese and Russian buyers well in the van of a spirited competition. During periods of uncertainty, or when stabilisation of rates is lacking, a natural timidity on the part of buyers during the disposal of the early catalogues is invariably manifested.

Recent visitors to the East predict that at no distant date, synchronising with the restoration of normal trading conditions, following on peace among the rival factions in China, that country will become a rival in competition for Australian wool clips. This season's wool, principally from the west and north-west portions of the State, is, despite drought influences, showing more quality than was anticipated. Many of the clips are highly attractive—perhaps a little bit lighter and finer than in the more normal seasons of previous years. Though carrying more dust than usual, the clips possess the highly compensatory factor of being free from burr, or comparatively so.

A National Tragedy.

The celebrated Wanganella Estate stud farm (F. S. Falkiner and Sons Ltd.), at Conargo, N.S.W., is doomed to extinction. In the New South Wales Government Gazette of July 5, 1929 (page 2858), appears a notification of the Bavin Government's intention to resume for closer settlement 29,166 acres of that famous estate. This is practically the cradle of the distinctive Australian strain known throughout the sheep world as the Wanganella, the modern prototype of the original Rambouillet merino. Capable of considerable modification, not only is it noted for its plain body and long-stapled, coarser kind of combing wool, but it can be bred to produce a wool moderately fine. Somebody has blundered, and blundered badly, in regard to this decision, one of the most calamitous and far-reaching in the history of the Australian merino. Evidently sheep men and their organisations are too deeply engrossed with—in comparison to the national issue referred to—the minor "Use More Wool" campaign, the export of stud sheep question, and the introduction of the Angora fur rabbit, or hare, to protest in no uncertain manner against this grave official threat to a world-famous merino stud.

Destroy our best Australian merino studs, and you destroy the key primary industry of the Commonwealth. Apart from the fortunes spent in founding our Australian merino studs, it must be remembered that it is not every locality that is suitable for stud sheepbreeding, and the merino especially. Wanganella Estate (part of the original 46,000 acres), purchased by George Peppin and Sons in 1858, was utilised in 1861 for the foundation of the stud stock flock so famous to-day. Four years later four Rambouillet imported rams were purchased for service on Wanganella. This importation included the celebrated Emperor, who for several successive years yielded 25 lb. of greasy and 12 lb. of scoured wool. The 5000-guineas ram, David of Dalkeith, is a descendant.

Fur Farming.

In the face of fairly strong opposition, the State Minister for Agriculture (Mr. Thorby) has approved of the conditions governing the keeping of Angora, Chinchilla and other approved types of hutch fur-bearing rabbits for the purposes of fur-farming. The conditions under which such rabbits may be kept are very rigid. For instance, no rabbits may be kept without a licence, and such licences are not transferable. The number

specified in the licence may not be exceeded nor removed without authority.

The farming of these rabbits will only be permitted within the counties of Cumberland and Camden, extending little beyond the metropolitan area. It is estimated that the profits from the fur-farming industry will reach the £2,000,000 mark annually.

Industrial Barometer.

The timber workers and their undesirable "basher" gangs are still at grips with the mill proprietors and the patient representatives of law and order. The timber merchants claim that they have emerged victorious from the melee; that their mills are efficiently and fully staffed; that business is proceeding in the normal conditions of the pre-strike days; and that, as far as they are concerned, the strike is but a memory. The disgruntled strike leaders and their sad and disillusioned followers still pursue their mass picketing and intimidatory tactics. One thing may be accepted without any fear of contradiction, and that is that the State Treasury has had its revenue considerably augmented through strike agencies. "Bashers" and pickets have been mulcted of divers sums at frequent intervals for overlooking the existence of certain very necessary laws. The penalties have had a markedly restraining influence on the possibilities of the practices developing into a popular hobby. Strikers and their satellites have not been the only contributors to the rapacious maws of a hawklike Treasury. For editorial indiscretions arising out of the turmoil the cumulative contributions of two daily newspapers—to wit, the "Labour Daily" and the "Sydney Morning Herald"—were assessed by the State Courts at £450, plus costs.

The Right Revd. Horace Crotty, M.A., Bishop of Bathurst (formerly Dean of Newcastle, N.S.W.), in a recent address at Bathurst Cathedral, inter alia, referred to the industrial chaos which had engulfed the coal and timber industries. Thus he summed up the situation:—"Industry is a workshop, vast and interlocked. A fighter in a workshop is a misfit. The bludgeon is out of date. Conflict there must always be, but the idea of conquest on either side must be frankly dismissed. This snarling and shaking of fists across barbed wire entanglements, while every moment markets are being lost, plant lying idle, new substitutes supplanting coal and the spectre of poverty growing daily nearer to women and little children, is a barren business." How true the picture he paints!

For seven months the miners of the Northern coalfields have in bitter invective assailed the colliery proprietors for their part in resisting the claims of the miners' lodges. The end is not yet. The findings of the Royal Commission on the Coal Industry will, it is feared, have little influence on the ultimate settlement. The State Premier (Mr. Bavin), on his return from abroad, evinced grave concern at the protracted nature of hostilities. He has announced his intention, as soon as the Federal Government retires from the arbitration field, to substitute for the present expensive and industrial system of litigation a system of direct negotiation at conferences between the people who were directly concerned in promoting the success of any particular industry.

Optimism is a wonderful asset to a politician. Suspicion and mistrust are two formidable obstacles to success in round-table conference, especially in the face of certain subtle influences ever directed against industrial reconciliations. Occasionally the unexpected happens.

Company Movements.

The Australian Banner Knitting Co. Ltd., of Petersham, has decided to make a new issue of 5000 10 per cent. cumulative preference shares at par, bringing the total issue up to 21,000 shares. This company disclosed a net profit of £5890 for the half-year ended June 30, approximately £900 less than the corresponding period of 1928. Interim dividends of 10 per cent. per annum on both classes of shares were paid.

New Companies Registered.

Central Investors Ltd.—Capital, £10,000. Silk mercers, silk weavers and cotton spinners, etc. First directors, H. J. Brigden and R. Barclay.

R. Livingstone and Co. Ltd.—Capital, £20,000. Wool scourers, wool classers and wool buyers, etc. First directors, J. Livingstone, R. Livingstone, T. A. Miatt, P. T. Hammond.

Personalia.

Mr. E. R. Moser, a director of the woolbroking firm of Schute, Bell and Co. Ltd., Bridge street, recently returned from a trip to the Near East. He is greatly impressed with the possibilities of trade expansion in wool and textiles.

Mr. Robert Paton, a director of Paton's Products Ltd., Bridge street, now on a world tour, was, according to advice recently received, in Bloemfontein, Orange River State, attending the wool sales and sheep show there.

Back from a visit to the United States, **Mr. R. T. Watt**, a well-known Melbourne wool merchant, tipped the Sierra stewards on arrival in Sydney, and left immediately for the South.

Mr. D. I. Leykand, general manager in Sydney and a director of the Textile Import Company Ltd., the Russian wool firm, was a passenger by the Ormiston on her recent trip to Melbourne.

Mr. H. Longworth, managing director of Australian Woollen Mills Ltd., Marrickville, travelled by the same boat to Melbourne.

Mr. W. W. Killen, M.P. for Riverina, a well-known woolgrower, has been in the hands of his medico, suffering from a severe heart attack. He is highly popular, and his enforced absence from the Federal Parliament will be deeply regretted by his many friends. It is rumoured that he may retire from active politics.

Recent cables referred to tests being carried out in Liverpool in connection with a secret process for fireproofing and waterproofing fabrics, invented by a young Liverpool chemist, John S. Hood. **Mr. Graham Weatherley**, of Leichhardt, N.S.W., 15 years ago invented a process for fireproofing fabrics. This has been extensively utilised in city and country theatres throughout this State.

For 50 years **Mr. J. H. Leach** has classed the Llanillo station clip. He is very popular in the Walgett district, and was the recipient of several presentations recently on the occasion of completing his fiftieth anniversary as the Llanillo woolclasser.

Death, the Grim Reaper, has been unusually active among those closely identified with the wool interests of the State. **Mr. Frank Wharton**, a brother to Mr. Doug. Wharton, a director of Winchcombe, Carson Ltd., and a son-in-law of Sir George Fuller, Agent-General for New South Wales, passed away at the early age of 30 years. He held extensive pastoral interests. **Mr. E. J. Gorman**, one of the best-known woolgrowing identities of the Riverina and Nor'-West, and well liked in sporting and business circles, answered the last call at the age of 61, following a short illness. **Mr. John Rider Jones**, one of the founders of the old woolbroking firm of Harrison, Jones and Devlin Ltd., and a former president of the Sydney Stock Exchange, passed out at the ripe old age of 88 years. He formerly owned Dera Dera station, in the Gwydir district. **Mr. John Hain**, formerly manager of the stock and property department of Harrison, Jones and Devlin Ltd., has joined his old chief in the Great Beyond. He was interested in several station properties.

PATENT METHOD TO GIVE COTTON WOOL-LIKE EFFECT.

Announcement of the issuance of letters patent No. 1,717,322 for treating cotton fibres to produce wool-like effects to Albert Bodmer, Wattwil, Switzerland, assignor to Heberlein and Co., was recently made by the U.S.A. Patent Office. The patent provides method of treating cotton goods, which comprises producing thereon a permanent finish wool-like effect by treating the goods with nitric acid, denitrating the goods to render them less sensitive to alkali prior to any finishing treatment involving alkali, and subsequently treating the goods with an alkali substance to further finish the same.—Washington Bureau Daily News Record.

There can be no sound distribution that is not based on sound production, at least in highly competitive industries.

QUEENSLAND

(From Our Own Correspondent.)

Wool.

There is little to remark with regard to wool. Sales during the 'tween seasons have been limited to odd lots unsold at last auctions and skin wool. From every point of view the season ended on June 30 last was disappointing. During the first half values were steady at a fair, if unexciting, level. But a retrograde movement started with the New Year, and rapidly gained momentum. Thus at the local auctions general average prices fell by practically 1d. per lb. at each of the last four sales until greasy wool was nearly 6d. per lb. lower than it was at the beginning of the season. It is safe to say that there was absolutely no profit to the average Queensland grower at the ruling price of the staple over the last four auctions, and at the closing two he suffered a distinct loss. Overproduction, decreased consumption, the economic difficulties of the principal purchasing countries, and the quantity of idle machinery in the world have all been factors in bringing about the present depression. Equally, probably, the fact that the growers are the only unorganised section of the trade has had a great deal to do with it.

The indication of a definite hardening of values in Coleman street has created a better tone in the Bradford market, and has encouraged the hope that the turning point has at last arrived, and that soon signs may be apparent that the prolonged depression has passed. Under present circumstances, however, it will take some time before any substantial improvement can be effected.

Gratifying support has been forthcoming from all quarters and all classes of the community for the "Use More Wool" campaign. One rather surprising direction from which hearty endorsement came was the A.W.U., the Sydney president of which appealed to its members to foster the movement in every way. Possibly it is a sign that the general public, and particularly that of the large cities, are at last beginning to realise that upon the wool industry depends the whole standard of living and the economic stability of Australia. The manufacturers, too, have promised their assistance, and support from this quarter will be most valuable.

Weather conditions over the greater part of Queensland continue unfavourable. During August useful showers fell on the wheatgrowing districts of the Darling Downs, and the sugar areas of the tropical north experienced light falls. But over the whole pastoral country of the west dry conditions prevail. In the far south-west artificial feeding is necessary, and in other districts scrub-cutting had to provide feed for starving stock. We hope for thunderstorms in the back country during this month and October. If they do not happen woolgrowers will be in a sorry plight. The exceptionally cold weather for the past two or three months has had a bad effect on weak sheep. In the central west things are better. The store stock market continues quiet for sheep, and somewhat erratic. Rates, however, are low, and any breeder who has to dispose of sheep or lambs, which cost him money

to keep alive during the drought, must show a big loss at current figures.

The Royal Show last month, both as regards attendance and numbers and qualities of exhibits, was highly successful. It was noticeable, however, that the crowds of country folk which poured into Brisbane during Show Week did not appear to have the money to spend they usually have then, and the big shops did considerably less business than was expected. But everyone is hoping for better things next year.

Cotton.

The preparation of land for planting cotton is well advanced in all sections of the cotton belt. Growers now only await a favourable opportunity to begin planting operations. In the central district good subsoil moisture is observable, and with a further fall of rain excellent planting conditions and an ideal seedbed will be obtained.

The early preparation of cotton land this season has been partly due to the very short harvesting season, which in many cases allowed farmers to begin ploughing their land nearly two months earlier than usual. The tractor, too, and other mechanical appliances have enabled cotton-growers to speed up land preparation work, besides making it possible for them to handle a much larger acreage of cotton. Cotton-growers in Queensland have learned to recognise in which direction profitable methods lie. At first small individual areas were grown, but these have now almost disappeared, and large areas of 50 to 100 acres are the rule, the grower invariably using tractor power to bring his cotton to the harvesting stage unaided.

The adoption of this system of cultivation has meant that cotton-growing has moved away from the closely settled areas with the small fields, and is now located in sections naturally suited to large-scale operations, where the country is open and rows half-a-mile long can be obtained.

Queensland, therefore, in regard to cotton cultural methods, has kept abreast of all other countries as far as cost of production is concerned, and it only needs that the Federal Government shall take into serious consideration the requests of growers and manufacturers for reasonable encouragement in the shape of bonus or tariff to make the cotton-growing industry and the manufacturing of the raw material of permanent assistance to our national prosperity. Queenslanders hope that the Federal Parliament will find time early this session to investigate this very important question carefully.

Considering the present and future importance to Queensland of the cotton-growing industry, it is surprising and disappointing that the display of cotton at the Royal Show this year was so meagre. It gave an altogether false impression of the magnitude of the industry, and afforded no indication as to the number of people engaged therein. Only two exhibitors were catalogued, and although the specimens shown were of first-rate quality, and well got up, any stranger to the State who was unaware of the large quantity of cotton grown here, and judging the possibilities of the industry from what he saw at the show, would form altogether erroneous conclusions.

Company News.

A successful year, despite general business depression, was reported at the annual meeting of the Queensland Woollen Manufacturing Company on August 19. The full staff has been kept employed during the whole year, and improvements and additions have been made to the plant. The profit and loss account showed a credit balance of £4012, which the directors recommended should be applied to a dividend of 5 per cent., which would take £3548, leaving £463 to be carried forward. The manufacturing account showed that the year's sales realised £96,959. Stock amounted to £25,606, and total assets were £93,288. The West Moreton district is ideally suited for crossbred sheep, and it is expected that there will be a great increase in this type. The wool is reported to be fully equal to New Zealand crossbred. Mr. Nimmo, a director, said that there had been a big demand for worsteds at the mill, greater than could be met. Now that it had been proved that the company could turn out worsteds equal to anything in the world, a great deal more attention would be paid to the production of that class of goods. Some time ago difficulty had been experienced with regard to dyes, but this had now been overcome. New scouring machines had been installed, which had increased the quantity of material turned out. The machinery was in good order, and the financial position was thoroughly sound. There seemed to be a desire on the part of the public to buy cloth made locally.

SOUTH AUSTRALIA

(From Our Own Correspondent.)

A steady trade, keeping up remarkably well considering all the circumstances, is the general trend of reports during August by retailers of textiles. Conditions are still hard, if not actually critical, among the importers, but as Australia has set out to try and supply its own demands the falling off of trade among importers is to be expected. This would have occurred whether seasons were good or bad, and it is something that should be borne in mind when estimating the possibilities of the market for textiles in South Australia.

For Australian-made stuff there is always a good inquiry, and those handling it have suffered very little from the depression in trade that is widely talked of. As a matter of fact, things are brightening up all round. September came in with one of the best general rains of the season, a number of pastoral holdings sharing in the downpour. A continuance of showers between the September sunshine will mean a much better harvest than was expected a couple of months ago.

Splendid Returns From South and Lower North.

Away back in the nineties of last century, before superphosphate was generally used, a drought meant a South Australian harvest of 3,000,000 to 4,000,000 bushels of wheat. So far the rainfall for 1929 is inches below the previous worst, yet the Government Statist is able to state that the current harvest will be in the region of 27,000,000 bushels. The early September rains have so improved matters that a return of 30,000,000 bushels is now looked for. If these are the "drought" times, what may be expected in the good? The truth is that only the upper part of South Australia has suffered during the past few lean years of rain. The settled agricultural areas, where moisture is frequently overabundant, have had a wonderful time, particularly the south-east, and now reports are filtering through that the West Coast, the newest area to be opened up, is looking forward to a first-class harvest. Farmers coming in to the show from Yorke Peninsula carry similar good tidings. Practically everything within Goyder's rainfall line is safe, and with the possibility of the wheat market hardening South Australia is in for a better year than most anticipate.

The outstanding failure, both in wheat and wool, is, of course, the far northern holdings. Some of them have had little or no rain for four years, and the soil is drifting badly under the influence of dust storms. It is wonderful how this country recuperates in good years, and with a much overdue return of wet seasons we may look forward to something better from this division of the State next year.

Company Reports Satisfactory.

The year's accounts, most of which have now been presented, are rather reassuring. Elder, Smith and Co. Limited finished the year with a profit not far below that of the previous year, no difficulty being experienced in meeting the usual 10 per cent. dividend. Bennett and Fisher Limited, another local pastoral concern, were not seriously down, and the figures of the Onkaparinga Woollen Company showed that their trade had increased in every State. Extensions have recently been made to their mills, and the extra plant is expected to improve the company's position during the current year. In one or two cases the profits have fallen a little short, and here and there it is observable that reserves have, to a small extent, been drawn upon to meet dividends and depreciation. As one manager stated, however, "What are reserves for unless they can be drawn upon in lean years?"

The report of Cresco Fertilisers Limited is interesting, as showing the faith in South Australia held by the farming community. Their profit for the year is over £6000 in excess of that for the previous year. This implies a growing sale of superphosphates, which have undoubtedly assisted the farmer in a remarkable degree to combat the dry seasons we have experienced.

Made in Australia.

Just at present there is a strong campaign in favour of patronising South Australian and Australian-made goods. At every turn the placards meet the public, and good effects seem to be flowing from it. Given a fair return in the present season from primary products, the State should be in a reasonably sound position. The only trouble here, as elsewhere, is the vain effort of the public to curb the spending power of Parliament. In the hope of effecting a change, a Reform Party was launched. It seems to have died a natural death. Now a People's Party is threatened. Meanwhile members of Parliament are going around explaining that the cost of Parliament is exceedingly small per head, and that it cannot possibly be cut down. The actual cost of Parliament may not be stupendous. It is not what the institution itself costs, however, so much as the cost of its enactments. During the past decade the expense of carrying on the government has increased at a stupendous rate, and there is not likely to be any diminution unless some responsibility can be placed on the shoulders of the politician.

Readers who do not file "The Textile Journal of Australia" for reference will assist us by handing the journal to business friends.

TASMANIA

LAUNCESTON.

(From Our Special Correspondent.)

During the winter months the textile trade in Tasmania has been quieter than usual, and the flannel and blanket business has been somewhat dull, but with the preparation for next winter, orders for which are coming to hand, an improvement is anticipated. As a result of the general depression in trade there has been some overproduction in woollens, and orders have been difficult to secure.

Messrs. Hogarth and Sons report immediate requirements slack at their Waverly mills, but they are busy completing orders for next season's blankets, for which the demand is good. The mill is working full time, with every prospect of continuing so.

The Reliance Worsted Mill reports full business, with several months' orders on hand, and all hands on full time. Business is expanding satisfactorily, with satisfaction to the proprietors, orders coming in from all over the States, whilst local requirements are steadily increasing.

Patons and Baldwins' spinning mills are working full time, and the exports are rapidly increasing to all parts of Australia. Considerable additions to the buildings are contemplated shortly to give increased facilities for conducting operations. About 1000 hands are now employed by this firm, and the mill presents a busy hive of industry. Mr. Proctor, the general manager, will leave for Scotland next year to take up a position with the firm at the head works, and his departure is regretted, as he is extremely popular with both the employees and the general public of Launceston.

Messrs. Thyne and Sons' knitting mill is progressing well, and business is steady and satisfactory. Trade since the inception of the mill has expanded wonderfully, with every prospect of continuing.

The Hon. Percy Hart, M.L.C., who was chairman of Kelsall and Kemps before leaving for a trip to Europe last February, is returning shortly. Whilst in England he visited the company's mills, and has also discussed with several large industrial firms the desirability of opening up business in Tasmania.

Patons and Baldwins sustained a loss last month through the death of Mr. Andrew Maitland, who had charge of their wool department since the opening of the establishment.

VICTORIA.

MELBOURNE MARKET.

(From Our Special Correspondent.)

Following the generally good rainfall, which has done much to allay anxiety in regard to harvest and pastoral prospects, the business outlook has shown some signs of recovery in the last few weeks. Trade in textiles has given indications of improvement, but, though turnovers were better than in July, business in August was still below normal for the opening of the new season. Fair orders have come to hand from certain country districts, but, in other cases, where adverse conditions continue to exist, trade has been slack. Melbourne houses trading with New South Wales report that conditions in the coal-mining districts are bad, with collections in many cases difficult or impossible.

Dealing on the Stock Exchange has been fairly active, a good sign of returning confidence in the industrial and seasonal outlook. More attention has been given to the shares of trading and manufacturing companies, and the diversion of funds to investment in such securities has been partly responsible for an easing in prices for Government bonds. Some of the Commonwealth issues are now priced to give a return of 5½ per cent. to the buyer, and the general return is in the neighbourhood of £5/7/6 per cent., against 5¼ per cent. and less a month earlier.

The Federal Budget proposals, announced towards the end of August, were generally approved by the business community. The necessity for additional taxation to cover accumulated deficits was recognised, and the decision to obtain additional revenue by the taxation of luxuries, rather than by imposts on commerce, was appreciated. At the same time, the opinion was generally expressed that greater efforts directed toward economy in governmental expenditure should be made.

WOOL.

Generally, a more hopeful tone is apparent in regard to prospects for the ensuing season. The opinion of experts as a whole is that the decline in prices has been checked, and that there should be a good demand, with prices approximately on the basis of those which ruled in London at the close of the July sales. It is anticipated

that the reduced prices will in themselves stimulate demands, and it is further pointed out that inquiries from Russia and the East indicate larger requirements.

The first Victorian series will be opened in Melbourne on September 23, and will close in Geelong on September 26. Owing to the dry season, shearing at many Riverina sheds commenced earlier than usual, and arrivals of new clip into store have been larger than normal.

COTTON GOODS.

The market on spot is quiet, with little change in prices, but in some directions it is reported that forward bookings are good. Prices overseas are stated to be fairly firm. Traders report that there may be some scarcity of piece goods before the end of the year. All orders from overseas have been delayed, and, if trade should be of anything like normal volume, stocks may be short. Some houses state that old stocks have been considerably reduced.

Cable advice from England about the middle of August was that both sections of employers had agreed to the submission of the dispute in the cotton industry to arbitration, work to be resumed on the old scale of wages, pending the decision of the arbitrators. About a week later the decision of the Court of Arbitration was announced. An effective reduction of wages of about 1/3 in the £1 was agreed to, this being half what the employers had demanded.

SILKS AND ART SILKS.

The market is rather quiet. The increase in the duty on both silks and artificial silks, as proposed in the Federal Budget, was generally unexpected. Wholesale prices of some classes of silk piece goods have been advanced accordingly. In regard to art silk, it is anticipated that the increase in duty will be largely offset by declining prices for the product. Surprise has been expressed that silk goods are classed as luxuries, as it is contended that they are now as much a necessity as cotton, woollen or other dress materials.

WOOLLENS AND WORSTEDS.

These goods have been moving out well. New season's stocks are opening up, fancy worsteds and lightweight tweeds finding the best inquiry. Mills have been fairly busy, but prospects for their operations next year will depend largely on the state of trade between the present and the end of this year. If the volume of business is not up to the usual standard, cancellations of orders may be expected, owing to the accumulation of stocks. Prices generally show no further decline, and, on the whole, the tone of the market is steadier.

COMPANY NEWS.

Considerable dealing on the Stock Exchange has taken place recently in preference shares of **Lincoln Mills (Australia) Ltd.** to higher prices. A dividend of 8 per cent. will be recommended to shareholders at the ordinary general meeting on September 20. Of the dividend, 4 per cent. is on account of arrears for the year ended June 30, 1928, and 4 per cent. on account of 9 per cent. due for the year ended June 30, 1929.

The Leviathan Ltd. declared a dividend at the rate of 7½ per cent. per annum on preference shares and at the rate of 8 per cent. per annum on ordinary shares for the half-year ended July 31. Ordinary shareholders receive 9 per cent. for the year, against 4 per cent. for the previous year.

Yarra Falls Ltd. has declared a final dividend of 1/ a share, making 10 per cent. for the year ended June 30. A call of 10/ has been made on 120,000 contributing shares, payable on October 1.

For the year ended June 30 **Australian Knitting Mills** earned a net profit of £67,806, against £71,600 for the previous twelve months. Capital is £500,000, and 10 per cent. dividend required £50,000. The directors reported that considerable progress had been made in the manufacture of artificial silk underwear, and Rayon Pty. Ltd. had been formed, in conjunction with Julius Kayser and Co., New York, to place the business on the soundest basis.

The Castlemaine Woollen Co. Ltd. earned net profits of £3026 for the half-year ended June 30. Capital of the company is £60,000.

For the year ended July 31, the **Mutual Store Ltd.** disclosed net profits of £20,435, against £20,554 in the previous year. Capital is £250,000 in 200,000 ordinary and 50,000 preference shares.

Net profit of **Buckley and Nunn Ltd.** for the year ended July 24 was £66,107, compared with £61,476 for the previous period. Preference shareholders received their 7 per cent. dividend, and ordinary shareholders 2/9, or 13¾ per cent. Capital is £474,041 in 324,041 ordinary and 150,000 preference shares.

Cox Brotheirs Ltd. made a trading profit of £60,314 in the twelve months ended July 31, against £47,258 for 1927-28, and net profit, after providing for depreciation, taxation and other expenses, was £33,179, against £25,466. Preference dividend was 9 per cent. and dividend on ordinary shares 20 per cent. Capital was increased in February by the issue of 20,850 preference and £20,850 ordinary shares, and at the closing of accounts paid up capital was £207,542.

GEELONG NEWS

(From Our Special Correspondent.)

Dennys, Lascelles Have a Record Season.

When the annual report and balance-sheet of the company was presented, it showed the most prosperous year since the formation.

The chairman of directors (Mr. F. Volum) presided over a well-attended meeting of shareholders, held at the Wool Exchange on August 23. A most encouraging financial position was outlined. The net profits for the year amounted to £37,197/0/7. Although an interim dividend had been paid in December, 1928, the directors recommended a further dividend of 7 per cent. The reserve fund of the company had been considerably augmented, and owing to the growth of the business the directors had purchased additional property, on which it was proposed to build a modern wool store. During the past year the company completed many buildings, covering the whole of its Moorabool street, Brougham place, Clare street and Corio street frontages, and various new branches had been established.

The New Clip.

Consignments of the new season's clip are being received at the local wool stores, and the sales will open on September 23 in Melbourne and Geelong.

Senator Guthrie Addresses the Chamber of Commerce.

Senator J. F. Guthrie recently addressed the Chamber of Commerce of Manufacturers, speaking on the importance of the Australian wool industry. He dealt with his subject in a most comprehensive and concise manner, which was greatly appreciated by the members, who accorded him a hearty vote of thanks.

The New Tariff.

Commenting on the effect of the new tariff for silk and artificial silk, Mr. Julius Solomon, of Solomons Pty. Ltd., said that it was difficult to understand why legislators should class silk and its artificial equivalent as a luxury, because in view of present-day prices these were the most reliable and widely-used fabrics among the working classes.

Direct Shipment.

Mr. A. J. Williams, who was recently appointed as the shipping representative and organiser of direct shipping to Geelong, has forwarded a cable advice that the steamer Tirakna, bound for Geelong, will leave the various Home ports as follows:—Newport, October 7; Bristol, October 10; Manchester, October 18; and Liverpool on October 25. This early advice is of great value to local importers.

A Boom in Tailoring.

Tailoring firms in Geelong are to all appearances entering upon a boom period. Many are working overtime, and mushroom establishments are springing up, attracting custom by means of cut prices. One large firm is offering a free suit to every purchaser of a new one.

Industrial Contributions to the Hospital.

A scheme by which employers and employees contribute to the Geelong Hospital has been successfully taken up by several local firms. Four firms have contributed £1286 during the past year, and Mr. J. Farnworth, of the Federal Woollen Mills, observed that there was no reason why the sum of £10,000 should not be raised through the contributions of local industrial employees.

Personal.

Mr. H. P. Brown, Director of Posts and Telegraphs for Australia, recently inspected the R.S. and S. Woollen and Worsted Mills. He declared himself delighted with the quality of the goods manufactured there, and said the visit had proved an eyeopener to him with regard to the textile work carried out in Australia.

The R.S. and S. Mills have installed a new wool scouring and carbonising plant, which is working most successfully.

Mr. L. Hirst, director of Godfrey Hirst's mills, who at present is spending an extended time on a visit overseas, has been re-elected Mayor of Newtown and Chilwell.

At a recent meeting of the Chamber of Commerce Council, Mr. W. R. Redpath, manager of the Excelsior Mills, gave an address on the value of the textile industry to Australia.

Mr. A. C. Kelsall, former senior partner of Messrs. Young Bros., Hamilton, has joined the board of directors of Dennys, Lascelles Ltd.

Mr. M. G. Fricker, managing director of the Flax Products of Australia, will address the Belmont Progress Association on flax production this month.

Have More Confidence.

When addressing the Geelong Chamber of Commerce and Manufactures at its monthly meeting, Mr. Redpath, manager of the Excelsior Woollen Mills, said that people talked far too much of trade depression, but that the hard times through which we were passing were due in a large measure to imagination and a constant reference to the fact that things were bad.

"Last year," continued Mr. Redpath, "£65,000,000 was brought into Australia for wool alone, and at that time we were going around telling everybody about the bad times we were having."

He said it was time that those who could speak should let the people know that things were not so bad as they were made out to be. If that were done, people would have greater confidence, more money would be spent, and we would pass more quickly into prosperous times.

South African Wool News

Need for Readjustment.

A note of warning is sounded by the Union Division of Agriculture as to the undoubted tendency towards an abnormal inflation of land values in many wool-growing areas of the Union. Woolgrowers are advised to consider the relative economic factors influencing the success of their undertaking.

The fact is recognised that many farmers have during recent years incurred heavy capital expenditure in the purchase of land and the erection of vermin-proof fencing, which during the transition stage towards stabilisation may cause individual hardships.

Nevertheless, it must be remembered that the success of competing artificial substitutes is stimulated by an undue high level of wool prices, and by adapting their industry to a stabilisation level, wool farmers will be taking the long view in assisting in eliminating any uncertainty as to the economic future of their business.

Record Lambing.

Reports received by the Department of Agriculture on winter lambing indicate that the season will be most successful. In many of the Karroo districts there has been record lambing, and, although the heavy rainfall and severe cold have caused some losses in certain areas, a considerable increase in the sheep population of the Union may reasonably be expected. Sheep are generally in good condition, but cattle have fallen off.

EXPORT AND DESTINATION OF SOUTH AFRICAN WOOL.

Totals from January to March, 1929.

Particulars Furnished by the Union Department of Customs and Excise.

Scoured Wool.	Bales.
United Kingdom	5,757
Italy	150
U.S.A.	1,397
France	290
Germany	2,555
Belgium	612
Holland	7
Other countries	293
Total, January to March, 1929	11,061
Similar period, 1928	9,484
Increase	1,577
Greasy Wool.	**Bales.**
United Kingdom	107,614
Italy	24,799
U.S.A.	1,274
France	46,053
Germany	67,132
Belgium	21,290
Holland	200
Other countries	1,549
Total, January to March, 1929	269,911
Similar period, 1928	260,112
Increase	9,799

Association News and Notes

(From Our Special Correspondents)

VICTORIAN HOSIERY AND UNDERWEAR MANUFACTURERS' ASSOCIATION.

The annual meeting of the Victorian Hosiery and Underwear Manufacturers' Association was held on August 28. The following office-bearers were elected for the ensuing year:—Chairman, Mr. W. L. Hicks; vice-chairman, Mr. A. G. Staley; committee, Messrs. Benzies, Mellor, Munro and Peacock.

Training of Hands.

The special sub-committee reported that arrangements were practically complete for classes to be held at the Brunswick Technical School for the training of mechanics, linkers and menders for the hosiery industry. The approval of the Minister of Education was awaited. Numerous inquiries had already been received from engineers and prospective operatives for information regarding the proposed courses of training. Suitable part-time day and evening instructors and instructresses for each branch of work would be nominated by the sub-committee. Fees for tuition would range from 15/ to £1 per term of approximately 15 weeks for beginners. Students in advanced branches of mechanics, however, would probably be required to pay higher fees. Members expressed their appreciation of the work of the sub-committee in connection with this matter.

Holidays.

The Christmas holidays which must be paid for under the Arbitration Award are Christmas Day, Boxing Day and New Year's Day. However, numerous applications for extra holidays without pay are usually received from employees at this time of the year, and the majority of manufacturers close down their establishments for a week or more, taking advantage of the opportunity to overhaul their machinery or take stock. The advisability of fixing a uniform period of closing, to be observed by all members, was discussed at the meeting, but no definite decision was arrived at.

Standardisation of Colour Cards.

Consideration was given to a suggestion from a member that standard colour cards be prepared each season by a committee of the Association, such cards to be adopted, with any necessary modifications, by the hosiery manufacturers throughout the State. Individual hosiery manufacturers would thus obtain their cards at a considerably reduced cost, and there should also be a big reduction in the number of shades asked for by buyers. Under present conditions buyers make a practice of asking individual manufacturers to produce the shades shown on the cards issued by their competitors. This results in a considerable increase in the number of shades ordered, causing increased difficulties to manufacturers and delays in delivery. The member making the suggestion explained that he did not for a moment intend that Australian manufacturers should try and set the fashion in colours. Our colours were generally based on those which were fashionable overseas. The fact that colours supplied for Queensland were different from those used for Victoria presented a difficulty. It was not suggested that a manufacturer should refuse to supply colours which were not on the standard card.

After some discussion it was agreed that, as it was too late to do anything in the matter this season, the proposal be deferred for consideration at a later date.

COTTON PIECE GOODS MANUFACTURERS

A meeting of the Cotton Piece Goods Manufacturers' Section of the Victorian Chamber of Manufactures was held on August 30. Mr. D. I. Dickie occupied the chair. It was agreed that arrangements be made for the adoption at the earliest possible date of the terms and conditions of sale and payment which have been in operation for many years in the woollen piece goods trade, viz.:—

Goods invoiced up to and including the 20th of the month must be paid for on the 15th of the following month, less 2½ per cent. discount; after that date net. No bills to be accepted and no extra discount to be allowed for cash received within seven days, and no concessions in the form of rebates, credit notes or allowances to be made in any shape or form. Where goods are shipped Interstate, they may be forwarded by boat nearest the 21st, but not earlier than the 17th, and charged as the 21st. Prices to be:—

(a) For orders outside the State in which the mill is located, f.o.b. capital city or shipping port, or f.o.r., according to the location of the mill, at option of seller.

(b) For orders in the State in which mill is situated, delivered free capital city therein or f.o.b. or f.o.r., according to location of the mill at option of seller.

It was reported to the meeting that the duties on cotton yarn had been further deferred until October 1, 1929.

VICTORIAN WOOLLEN MANUFACTURERS' ASSOCIATION.

The monthly meeting of the Victorian Woollen Manufacturers' Association took place on August 13, the chair being occupied by Mr. A. Schofield.

A leter was received from the Associated Chambers, forwarding suggestion from the Brisbane Women's Club that the nine inches which they understood was dropped from the length of blankets during the war be added again, thus assisting the "Use More Wool" campaign. It was agreed to reply pointing out that, since the adoption by the Victorian Woollen Manufacturers of standard sizes and minimum weights for blankets, there had been no alteration in either the sizes or weights, with the exception of the 72 in. x 54 in. size, which was recently increased to 78 in. x 54 in. The association would be only too pleased to adopt any practicable suggestion to increase the use of wool, but the Brisbane Women's Club was evidently under a misapprehension in regard to the sizes of blankets.

EXHIBITION.

The chairman reported that Messrs. Prince, Smith and Co. were forwarding to Melbourne some of the demonstration plant they had exhibited at Wembley, so that it might be included in the association's working exhibit at the All-Australian Exhibition opening at the Exhibition Building, Melbourne, on September 14.

Mr. Bailey, manager of the Gibsonia Woollen Mills, had joined the exhibition committee, and was preparing designs for the display on the ground floor of the Exhibition Building. Assistance was being received from the Geelong Technical College in connection with the scouring plant for the working exhibit in the basement.

Bush Rugs.

Considerable discussion took place regarding the manufacture and sale of bush rugs, and a sub-committee was appointed to deal with the matter.

Samples for Schools.

A suggestion was received from a member that little booklets of samples be issued by the association for distribution among pupils of the sewing centres in the technical schools throughout Victoria. The proposal was deferred for consideration at a later date.

Made in Australia.

The Made in Australia Council's organiser has just completed a very successful tour of the North-Western District of Victoria. Shopping Weeks were opened at Mildura, Sea Lake, Charlton, Inglewood, Maldon, Wedderburn and Wycheproof, and "Made in Australia" cards supplied to 22 towns en route. A total of 659 shops were visited during the trip and 2324 window display cards distributed. Seven moving picture entertainments were held, at which films depicting the manufacture of Australian goods were screened, the total attendances being 3640 people.

Preparations are now in hand for the display of cards and streamers at the All-Australian Exhibition and the Royal Agricultural Society's Show.

Made in Australia Shopping Weeks are now being arranged at Parkdale and Dandenong.

GO AHEAD.

"What I say to you all is this: Go ahead; put your brains into your business; advertise well, organise your sales scientifically, and do not be disturbed by voices of fear, which are often only voices of political partisanship."
—Message from the Prime Minister of England to the Fifth Advertising Convention at Newcastle-upon-Tyne.

"Use More Wool" Campaign

Mr. S. G. Barker, director of the British Research Association for the Woollen and Worsted Industries, is interested in the proposed Australian "use more wool" campaign, and has furnished to "The Commercial," Manchester, the following review on the scientific virtues of wool as a wearing apparel:—

"First of all, wool is the natural body covering, and owes its origin to the fact that the primitive sheep had two coats, an outer protective coat of hair, and an inner skin coat furnishing warmth and health close to the skin itself. By careful breeding and selection the outer coat has now disappeared, and the inner coat has been developed to become the wool of commerce. It is, therefore, obvious that wool is a natural skin covering designed as such by nature itself.

Let us consider for a moment the ideal fabric for use as a clothing material, and see how far the scientific measurements made on wool will allow it to fill the demand thus created. In the first place, lightness and pleasing texture, combined with strength and durability, are essentials. Heat retention is required, and at the same time free ventilation and removal of moisture from the body, without any uncomfortable or clammy feeling, must be effected. The ideal textile fabric should not tear readily or sag when stretched, that is, it should be thoroughly elastic, and it should have a very distinct power of recovery of its original shape after wear.

Fineness of Fibre.

Fineness of the original filaments or fibres is a great asset in any attempt to manufacture a light fabric. Wool fibres are known to vary in fineness, according to a variety of natural conditions, including breed of sheep, climate, and nutrition, which have a profound influence. The fine wool that is used for the making of worsteds or hosiery is of the order of 1-2000th of an inch in thickness. The weight of such a fibre, say six inches long, would be less than one-millionth of an ounce; in fact, one ounce of 90's quality would measure 100 miles in length. It is, therefore, seen that lightness can be obtained in wool fabrics. Taking the weight of wool compared with other substances, bulk for bulk, known scientifically as its specific gravity of density, wool shows a value which makes it lighter than other textile materials. It is thus possible to weave a fabric of wool which is slightly thicker, but equally light in weight, as compared with other textile fibres. The early attempts to determine this factor, namely, the specific gravity of wool, showed considerable divergence, due to the fact that the power of wool to absorb moisture had not been considered. It is worthy of note that benzine fulfils the condition of not being readily absorbed by wool; in fact, it has been pointed out that the specific gravity value for wool determined in benzine, namely, 1.3, is the true figure. This is of interest, as benzine is so largely used for dry cleaning and cleaning of clothes, and apparently it is a liquid which is not absorbed by the wool itself.

The fact that a fabric is manufactured from such a fine, light fibre does not prohibit the final product from being both strong and durable. In comparison with metallic filaments, taking the tensile strength as expressed on the tons per square inch of cross section, it is found that wool

fibre is comparable in strength with copper, silver, gold and other metals. Wool not only possesses this great tensile strength, but it is wonderfully elastic. It has been shown that a wet wool fibre will return to its original length after almost any degree of stretching without rupture. The wonderful elasticity of wool is a great asset in the manufacture of woollen fabrics for clothing, as it means that a garment which has been stretched and strained by wear will, if placed aside, largely regain its original size and shape.

In regard to durability, tests performed in Germany have recently shown that wool is the most durable of the fabrics used for clothing materials. Chrome wool, when exposed to the rigours of weathering in an artificial test, took twice as long to deteriorate to one-half of its initial strength as any other textile fabric.

The heat-retaining power of wool is a factor of great importance. As equable temperature must be maintained next to the skin, and the natural heat of the body must be conserved, the heat-retaining power of a fabric depends possibly less on the material from which it is made than on the closeness of the texture of weave, and, of course, partially on the conductivity for heat of the fibre material itself. Wool has been shown by scientific measurement to have the least heat conductivity of all textile fibres, and, further, there is a point to be noted in that a woollen garment has a characteristic hairy beard on its surface. The heat-retaining power of a textile fabric is greatly enhanced by the air entrapped in the interstices of the structure of the cloth. Thus an open weave, entrapping a large amount of air, will, on account of the low conductivity of air itself, retain heat to a very advanced degree. The fact that the hairy beard of the wool fabric entraps air to a greater extent than the smooth fabrics made from other fibres, would naturally tend to present to the skin a thicker layer of air in close proximity to it. This is one of the great advantages possessed by wool fabrics. The conductivity of air itself is extremely low, being half that of wool. Thus we have in a wool fabric an ideal type of structure, if woven openly, for entrapping air and thus retaining heat to a greater extent.

In addition to its power of retaining heat, wool actually creates heat in itself when wetted. Experiments performed on the wetting out of wool have shown that one pound of perfectly dry wool, when completely wetted, will evolve 43 British thermal units of heat, that is, sufficient heat to raise one pound of water through 43 degrees Fahrenheit. This is of great importance to the wearer in that, when freshly aired, wool garments will themselves create heat on the absorption of the first moisture emitted by the body, and so produce the warm glow on the body which is such a source of comfort. This property in a freshly-aired wool garment is a source of advantage from the health point of view.

Ultra-Violet Radiation.

A word or two might be added in regard to the transmission of ultra-violet radiation through wool fabrics. The attention of the public has been drawn recently to the therapeutic value of ultra-violet rays, and this has naturally led to research work on the question as to which textiles will transmit ultra-violet radiation. The conclusion of workers, both in this country and in America, is that, as in the case of the heat-retaining power of the fabric, the closeness or openness of texture of the weave is of greater importance than the actual composition of the fibre material itself. American observers have shown that transmission through the material of the fabric is only of the order of 5 to 10 per cent. of the total transmission. On this basis fabrics made of heavy woollen yarns compare favourably with others for the transmission of ultra-violet radiation. In any case, however, it has been shown that wool will transmit up to 15 per cent. of the incident ultra-violet radiation, and, whilst not placing too much emphasis on this fact, as it is shown, as above, that the material of the fabric is of comparatively small importance, the fact still remains that wool will transmit ultra-violet rays. In the case of wool hosiery fabric, fourteen layers were necessary to stop the transmission of ultra-violet rays, meaning that they traversed a total thickness of just over a quarter of an inch.

These are some of the properties of wool. Its softness, its lustre, and other characteristics all place it in the foreground as a textile material, and it is interesting to know that scientific research has merely confirmed the popular findings of this wonderful textile fibre.

"Just as there are some mill executives who produce to mill capacity in disregard of the demand and force that capacity on a reluctant market, so there are some selling agents who seem to feel that their primary business is to force volume of goods on the market by making or following prices that disregard cost of manufacture."—W. R. Basset.

British Textile Review

Specially written for this Journal by
Gilbert C. Layton, Manager, Late Assistant Editor, of "The Economist"

Cotton Trade Inquiry.

In the recent election campaign the British Labour Party advocated the desirability of an inquiry into one of the most depressed of the national industries, namely, cotton. Now that it is in office that party intends to institute the suggested inquiry. Broadly speaking, there are three subjects which have to be examined. There is the question of the internal organisation of the industry; there is the problem of technical development; and then there is the issue of the relationship between capital and labour and the surplus of labour. The industry has of its own initiative made some progress in solving these problems. Lancashire, with all its individualism, has accepted rationalisation, of which the outstanding example is the formation of the Lancashire Cotton Corporation, and technical improvements which give promise of increased output per worker are now the object of important experiments.

The scope of the suggested inquiry can be realised by reference to the present mill workers' wages controversy. The masters are proposing a wage reduction of 12½ per cent., with the object of passing on this benefit to the ultimate consumer in order to stimulate demand. Between the mill and the public there are, however, numerous intermediaries—dyers, printers, finishers, packers, shippers and drapers—all out to make the largest profit they can. It requires considerable optimism to expect price reductions at the mills to traverse intact all these barricades and reach the man, or woman, in the street. But supposing the drop in mill costs should ripple as far as the purchasing public, what effect can it have? The absolute amount of a wage alteration at the mill, although it may appear substantial to mill operatives or mill owners, forms only a small fraction of the ultimate selling price of the cloth on the shop counter. By this reduction, however, the master cotton spinners hope to set the cotton trade on its feet. It will be seen that the remedy for Lancashire's cotton troubles can only come after an inquiry both profound and widespread in all sections of the industry. Meanwhile the definite and outspoken hostility of the employers to any Government inquiry is received by the operatives and in other circles as an additional reason for holding the inquiry.

Wool Trade Troubles.

Woollen manufacturers, it is well known, have, with some minor exceptions, been doing bad business for the last twelve months. Their chief complaint has been that wool is too dear, and the recurring hope that raw wool prices might fall has restricted many manufacturers to limited activity. Woolgrowers, however, retort that they cannot reduce prices without incurring a working loss. It has been pointed out by some critics that woolgrowers take this stand because they have never properly written down their plant. Manufacturers have been compelled to do this. When banks have been called in to assist woollen mills they have very often placed only a nominal value on buildings and machinery, and refused to accept them as securities. In certain recent auctions of going concerns spindles have realised only a price equivalent to their value as scrap metal, and some worsted looms have been sold at £5, which, to replace from their manufacturers, would cost £37. A corresponding writing down of plant should have taken place in the accounts of woolgrowers, especially as many of them changed hands just after the war at high levels. With merino wool at Australian ports at less than 18d., a working loss on the original value of the farm is inevitable. Hiding the truth in the balance-sheet values only confuses the position.

The Small Rayon Companies.

Recent endeavours are knitting yet closer the international rayon cartel, and a new company called General Artificial Silk Union is about to be formed to give a more concrete form to this unification. In this circumstance it is worth while considering the financial position of the smaller companies, especially those outside the international organisation. Their balance-sheets are not very encouraging. Most of the companies find it necessary still to show patents, processes, development account and preliminary expenses as "assets," and in many cases the cash position is also a weakness. Apex, for example, in their last balance-sheet give patent processes and development account at £158,680, while the issued capital is only £397,896, and in addition there is the item preliminary expenses at £40,666. The Bulmer Rayon balance-sheet is even less favourable. The position as shown at the end of 1928 included a heavy overdraft, high development and similar expenses, together with preliminary expenses not written off, all indicating that a financial reconstruction was due, and this took place by a sale to the British Acetate Silk Corporation. Western Viscose's accounts clearly indicated an insufficiency of capital; meanwhile the company is in the hands of a receiver.

Branston presents one of the best accounts of these smaller rayon companies, and they show development and experimental account at a normal figure of £69,523; but the firm has not yet reached its desired ten tons production. British Enka, in a well-presented balance-sheet, showing the position at December 31, 1928, gives patents, etc., at £150,322, which is high, but understandable in view of the company's connections. While ample business is suggested by the balance-sheet, the profit and loss item of £82,324 is not satisfactory. The rayon industry now demands both high quality—a demand encouraged by the leading producers—and cheapness. This can only be achieved by experience and experiment combined with mass production—a difficult task for the smaller companies.

British Textile Market Reports

Cotton.—June spot prices for most kinds of cotton at Liverpool are slightly lower.

The export of grey cotton yarn during the first five months of this year amounted to approximately 65 million lb., compared with 64,340,500 lb. during the same period of 1928 and 80 millions in 1927. There was an increase of over two million pounds in the export of yarns between 40's and 80's counts, and a decrease of over a million pounds in counts 80's to 120's. France in particular shows a large increase, and Switzerland and Germany heavy decreases; the exports of bleached and dyed yarns during the same period were 8,334,700 lb. (1929); 8,368,400 (1928); 9,525,300 (1927). Overseas demand is poor at present, though there is some Continental inquiry for speciality yarns; such orders as manufacturers are placing are for the higher counts of Egyptian and American yarns.

Cotton piecegoods of all kinds exported during the first five months of this year amounted to 1710¼ million square yards, compared with 1654¾ million square yards during the same period of 1928, and 1745½ million square yards in 1927. Nearly 20 million square yards more grey cotton piecegoods; 38 million square yards more bleached and nearly 20 million square yards more piece dyed cottons have been exported so far this year, and over 4 million square yards less coloured wovens, also nearly 26 million square yards less printed cottons. Practically all the South American markets, China and Hong Kong and Egypt, show large increases, whilst there was a heavy decline in exports to India and Switzerland.

There is an absence of demand for grey goods from the Eastern markets. India, however, has recently bought a few dhooties and whites.

In addition to the two new organisations in the Lancashire cotton trade previously announced, there comes the report of a fine spinning combine to be called the Combined Egyptian Mills Ltd. The names of the directors have not yet been published, but it is understood that they will comprise several well-known men connected with the fine spinning section of the trade, and also raw cotton. It is stated that 15 companies owning over 30 mills and approximately three million spindles are concerned.

Wool.—The price of home-grown wools has dropped considerably.

The export of wool tops during the first five months of this year amounted to 145,279 centals of 100 lb., compared with 159,360 during the same period of 1928, and 183,462 in 1927; nearly all the European markets show a decline.

There appears to be more confidence that wool values have touched their lowest point, and spinners have been carrying out some larger transactions in tops.

The export of worsted yarns from January to May 31 this year was 14,693,000 lb., as against 17,455,300 lb. during the same period of 1928, and 15,921,000 lb. in 1927. As in the case of tops, there was a decline in the export to nearly all markets. Germany showed a particularly heavy fall in both commodities. Piecegoods.—Approximately 45¼ million square yards of woollen piecegoods were exported during the first five months of this year, compared with 54 million from January to May, 1928, and nearly 48½ million in 1927. Declines were shown by fabrics of all weights, and by both all-wool and woollen mixture cloths. China and Hong Kong, Australia and Canada show heavy declines, and the United States of America a smaller fall, while Germany, Belgium and France imported rather larger quantities from this country.

The figures for the export of worsted piecegoods during the same period were 20,803,900 (1929); 14,215,300 (1928); 16,631,200 (1927). This is a welcome revival of worsteds to the detriment of woollen trade. The increase was most marked in all-wool fabrics of less than 12 oz. per square yard, and mixture cloths of the same weights. Practically every market contributed to the increase of 6½ million square yards. China and Hong Kong and Canada in particular showed large increases in their imports from this country.

Artificial Silk.—Producers of acetate and viscose yarns of high grade are well supplied with orders, and there is

also a fair demand for medium qualities, whilst the cheapest grades lack support.

Manufacturers complain of a lack of orders on export account, and are experiencing Japanese and Italian competition in the Indian and China markets. The Dominions and South American markets, however, are ordering artificial silk mixture fabrics. Linings are also in fair demand.

The exports of artificial silk yarn during the first five months of this year amounted to approximately 3½ million lb., compared with just under 3½ million during the same period of 1928 and 2,650,086 lb. in 1927.

Tissues, wholly of artificial silk and artificial silk mixtures, exported during the first five months of the year amounted to over 5¾ million pounds, compared with nearly 7 million pounds during the same period of 1928, and about 4 million pounds in 1927.

Linen.—Flax.—There is no supply of Irish flax in the local flax markets. Prices of Continental flaxes are somewhat easier, but buyers are not being tempted to buy in excess of their requirements for immediate contracts. Superior Belgian flax is most in demand.

Reports of the new flax crops from the various flax producing countries are somewhat disappointing. The area of flax sown is below expectation, and, on account of the adverse weather conditions, production per acre will not exceed that of last year.

Spinning.—In the spinning end there is a certain amount of inquiry covering all ranges, but actual business is confined mostly to damask and two yarns in the finer numbers. There is a scarcity of fine tow yarns, and little prospect of any immediate increase of supply.

Weaving.—In the weaving section optimism prevails for new business in the near future. Inquiries from overseas buyers are more frequent, and, from the recent business done, it is expected that some substantial orders will be placed.

Manufacturers of dress and handkerchief linens have a fair amount of new business on hand, and most of the manufacturing plant is fully occupied.

While linen crashes, suitings and dowlas linens, suitable for the clothing trades, have some difficulty in holding their own for new business, roughs, creas, and hollands are receiving more attention for the shipping trade. There is also a fair demand for bleaching drills, both linen and union.

Merchanting.—There is a welcome improvement in the volume of overseas business coming in. Napkins, towellings, and slip damasks, for restaurant trade, are in good demand.

Inquiries on behalf of Madeira and China embroidery have improved, and it is anticipated that there will be a further improvement in demand in this section.

Repeat orders for tailoring and costume linens are being placed for stock replenishments, but bulk orders are somewhat scarce; individual items are receiving more attention.

Bleached drills are receiving more attention for the South American shipping trade.

The most useful man in any nation is the man who raises a standard to a higher level.

Suggestions for the Wool Industry

(From the Annual Report of A. D. Whiteside, President of the Wool Institute Inc., U.S.A. Reprinted from the "American Wool and Cotton Reporter.")

Principles of Modern Industry—Market Trends—Must Tell Public New Story.

From the background of our experience with the weaving division, with the added contact of the past few months with the spinning division, it now seems feasible to outline what appears to be a reasonable and practical suggestion for the future activities of the wool industry as a whole.

These suggestions are based on adopting, with the required modifications, the fundamental principles on which modern industry has developed to its highest state of efficiency, as shown in a concrete example, the automobile industry.

Three Basic Principles.

These three basic principles are:—

(1) The recognition of the absolute necessity of obtaining accurate data on the industry as a whole, which may be characterised as a realisation of the inestimable value of being able to estimate continuously with precision the replacement requirements of the consumer for wool products, and to obtain the required facts on which to judge correctly the direction of the trends in demand.

(2) Every division of the industry must realise that the welfare of every factor is indisputably and vitally concerned in broadening the market, through maintaining its replacement position and by increasing the use of wool products.

(3) These purposes cannot be carried out excepting through selecting adequate, authoritative, administrative committees to represent every division of the industry, as the means of interchanging the data and ideas which must be considered in formulating the broad and far-reaching plans required to place this industry on a self-governing basis.

Accurate knowledge of replacement requirements and records correctly indicating the trends in the use of wool products are needed. As facts showing either of these essential figures on which to predetermine the activities of any division of the industry are not available, a theory of replacement has been worked out.

The Life of a Suit of Clothes.

The automobile manufacturer knows exactly the life of a car. What is the life of the suit I have on? What is the average life of the average suit worn by the men in this room? What is the average life of all suits? Any figure is a guess, but it would be possible to reach an accurate replacement figure within a few months through the co-ordination of the industry, and I mean by that the degree of co-ordination which could reasonably be expected.

Assuming that we knew the current life of a suit—how could that fact be utilised? There is a peculiar relationship between a sheep and a suit of clothes. The average fleece of one territory sheep converts closely into one suit of clothes for the average man, provided the suit is all wool. The average fleece weighs 8.7 pounds. These wools shrink about 58 per cent. in scouring—3.65 clean pounds. The wool then loses about 25 per cent. between the scouring of the original fleece and the finished cloth, leaving 2.74 pounds or 44 ounces of wool fabric.

The cloth in the average suit weighs 13 ounces a yard, and requires approximately 3⅜ yards of fabric, making the weight of the cloth in each suit 43.9 ounces, so the average suit of clothes, from the standpoint of the grower, is equivalent to the average fleece of one sheep.

For the sake of simplicity in demonstrating a theory, we might assume that the clip of every sheep in this country represented the raw material required for an apparel unit for a man, for either an overcoat or a suit of clothes. As the actual cloth manufactured by the mills for the men's wear trade is now divided on a basis of 83 per cent. for suitings and 17 per cent. for overcoatings, to carry this theory to its conclusion we might assume that the total 349,114,000 pounds of domestic wools sheared and pulled in 1928 and the 70,853,000 pounds of imported wools were fully consumed within one year in making apparel for men.

There are 44,554,000 sheep, 25 per cent. of which are slaughtered and yield pulled wool, and the balance are clipped.

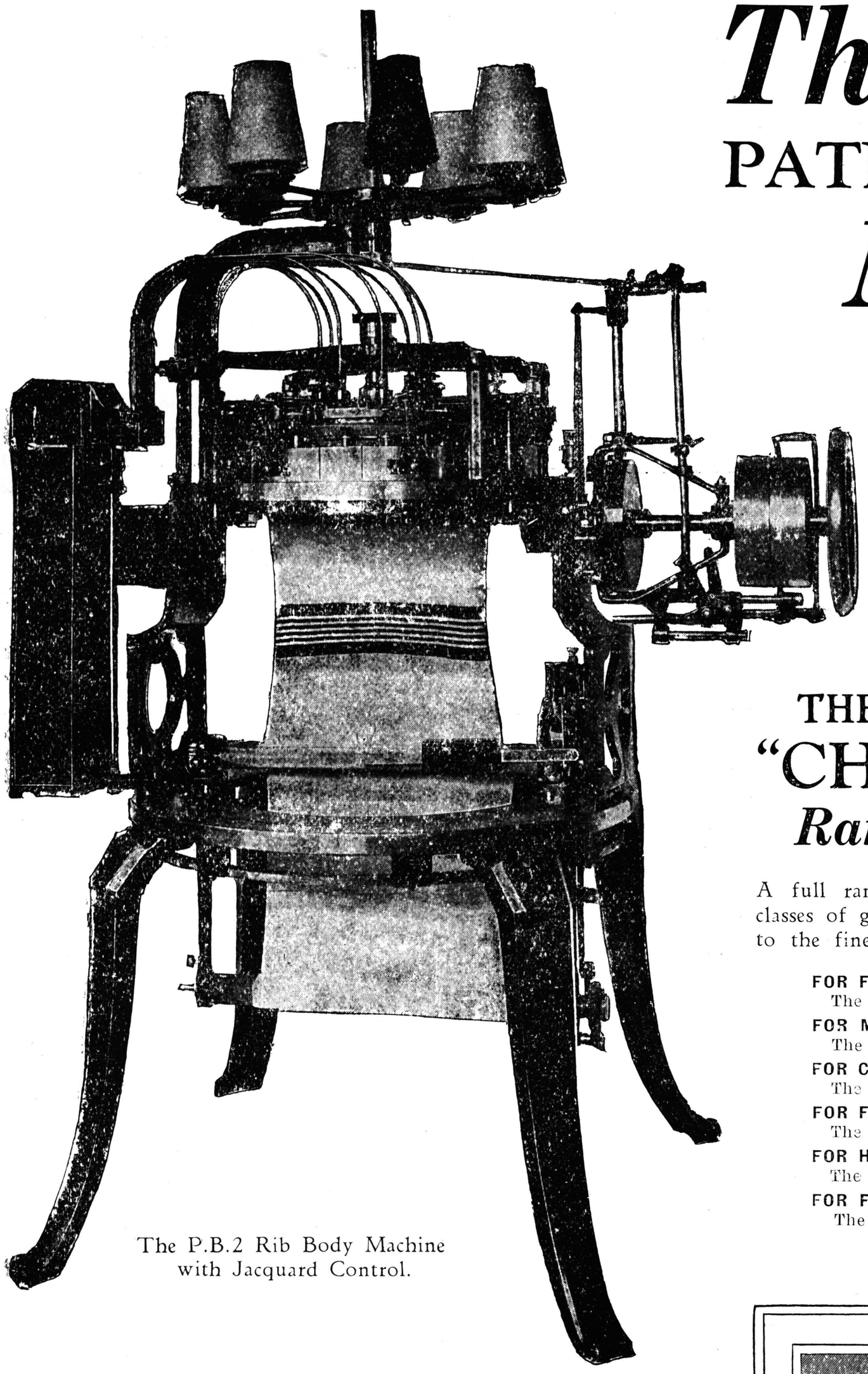
By adopting the same conversion method used to show the relationship between one fleece and one suit, as there are 44,554,000 sheep and 35,700,000 males in this country over 14 years old, we may draw a definite conclusion theoretically that: (a) each male over 14 years old buys one suit of clothes every 11 months; (b) one overcoat every four years and six months, and that (c) the average life of men's wear apparel units, either an overcoat or a suit, is nine months and 18 days.

A few men might have many suits or overcoats, others three or four, but irrespective of the number of suits or overcoats owned by the individual, the average life of an apparel unit for a man would be 9 months and 18 days.

Replacement figures should prove to be a far more important factor in estimating the trend of future sales of wool products, if the average life of the various types of garments were correctly estimated, than that figure could possibly be to the automobile manufacturers, as vital as it is to them.

Replacements and Multiple Buyers.

For the replacement figure to the automobile manufacturer represents only about 50 per cent. of the volume of business which may reasonably be expected, for there is



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still a very large field of new users and foreign buyers to be sold, while in the men's wear division of the wool industry, which we are using as a parallel, there are no new users excepting those automatically coming within the age limit arbitrarily selected.

The field of multiple users, which the automobile manufacturers are now developing rapidly, is the most fertile one open at this time to the men's wear manufacturers.

In men's wear fabrics, replacement now represents the bulk of the market, leaving only multiple buyers as a possibility for very great expansion.

The market for women's wear, irrespective of the style element, should be considered from a replacement standpoint to a far more important extent than it is at present, but the major effort should be exerted toward influencing sales to new users and for interseasonable wear, for uses, which at one time were universal, have now faded into the background in the wardrobes of women.

If all wools were used for apparel for men, the replacement figure would be of inestimable value to every division of the industry on which to predetermine the operating schedules and costs.

Market Trends.

Accurate figures could as readily be obtained, which would show the trends of each market for all wool products.

The facts required to enable the wool industry to predetermine operating schedules with precision, and which will enable every individual concern in every division of the industry to operate in known quantities, are available in every other successful industry.

They are merely the monthly or quarterly figures from 50 per cent. or more of each division of the industry, showing: (1) production, (2) sales, (3) stocks, according to the classes of products handled.

I shall cite only one instance of the effect of trends on this industry.

The number of closed cars sold passed the number of open cars sold in 1925. That meant little or nothing to this industry at the time, but that change undoubtedly materially and definitely modified the average weight of the cloth used in men's wear, and was the beginning of the decline in the use of wool products of necessity in women's wear.

The average passenger car carries three persons, and as 74 per cent. of the cars registered to-day are closed cars, it is entirely probable that about 45,000,000 people for this reason wear lighter fabrics now than they did in 1925, and the majority of the balance of the public follow their lead.

And every ounce that goes out of the average weight of a yard of fabric reduces the use of raw wool approximately three ounces for every yard of cloth sold.

If the data just referred to as required were available, the moment the figures become comparative the exact trends in the use of every type of material for every purpose would be known, and when plans for broadening the market were being considered, they would show a definite objective which might be worked out along the lines of least resistance.

Directed Two Ways.

Our purpose would be directed two ways: (a) to maintain the replacement market for all products, and (b) to develop the number of multiple users in men's wear and the number of new users and new uses in women's wear as well as that of industrial uses.

There is little doubt but that the number of multiple users is subject to very wide development in men's wear, for the 3 per cent. of the total variable item of 27 per cent. in the expenditure of the average man for apparel can be materially enlarged to the very great advantage of the wool industry.

The sales of radios and accessories for the year 1928 in U.S.A. amounted to £130,000,000, equalling the sales of all weavers, contrasted with £12,000,000 in 1922.

It must be evident to every thinking man that the average man in the United States has been compelled to curtail on flexible necessities, which are not food or shelter, and consequently apparel, to contribute this large total to the development of this second new industry.

The airplane industry is one that may not rank with these first two new industries, but it will bear watching. In 1923, 800 planes were sold in this country, excluding those to the Government. In 1928 5000 planes, valued at £8,400,000, were marketed. The data available and issued by the aeronautic association, which I receive, is extremely comprehensive, and gives facts which would be invaluable to any manufacturer in any industry.

Outstanding Factors of Success.

The outstanding features that are accountable to a very great extent for the success of these three new industries are:—

1st—The immense amount of intimate data which is available through an interchange of facts.

2nd—The exceptional breadth and accuracy of the information in regard to the market possibilities which has been brought out as soon as an industry has come into existence.

3rd—The co-operative and individual advertising and promotional work that has been carried on.

4th—Each industry has organised to finance the sale of their product to the public.

So much has been written on the first three points that no further comment is required at this time.

Making It Easy for Consumer to Buy.

The fourth point is of vital importance for your consideration—that is, making it easy for the consumer to purchase your products.

The fall-down in the development of instalment sales in this industry has been due to two basic factors—the small unit value of the average sale, and the perishability of the product. The perishability of the product needs no comment. Every product is perishable to a more or less extent, and, while it is a modifying factor in the wool industry, it should not be conclusive.

The value of the apparel unit can be changed, particularly in men's wear, where the wardrobe idea has never been developed very far, if at all. That is, the sale of multiple suits for specific purposes at one time. If the value of the unit of sale is raised instalment selling may be profitably carried on, and will act as an important stabilising factor in the industry.

Your first reaction will be that it has been tried in one way or another, and that it has not succeeded with the public—and that sales to the retailers of group assortments of either men's wear or women's wear have been tried and failed.

If this industry will co-ordinate in the objectives outlined, I am as positive as I am standing here to-day that within 18 months the industry can be put on a basis of profit which can be consistently maintained and developed to a point it has never reached, with the possible exclusion of the unnatural conditions that prevailed for a short period directly after the war.

Few concerns in this industry, excluding cutters, are sufficiently large, with very few exceptions, to reach the public adequately because of the expense involved.

And so it seems entirely feasible to give our types of materials collectively new names and new identities, from the raw wool to the finished product.

Must Give Public a New Story.

We must positively give the retailer a new story to tell the public, if they are to buy these fabrics—something that will appeal to the consumer.

Let them speak of Idaho wools, and give them the special peculiarities which those wools may possess.

We can develop fabrics, either woven or knitted of unusual yarn construction, and give them reasons for their purchase, not only from the standpoint of the cloth, but because of the yarn qualifications. And the story of fabrics has unlimited possibilities.

But the underlying purpose of all of our effort should be directed toward giving immediately a new viewpoint regarding wool products to everyone, not only to those connected with the industry, but to every man, woman and child in this country. We can only do this adequately collectively.

The old story is worn out. It is a little late to expect heavy sales on a cloth called "seersucker," even though it is a fabric that has unusual qualities subject to wide development for particular uses. Change its name.

Broad Possibilities.

Taking it all in all, there is no industry on earth that has a stronger foundation from which to work, which has done so little to help itself and which has such broad possibilities of development as the wool industry of America has to-day. But in the broader sense this is not a development which can be carried on independently, although that in no way implies that individuality in any respect should be dampened.

The wider ultimate objective must be collective to the industry as a whole, not to individual units or to separate divisions.

Co-ordinated Thought Action.

At the beginning of any collective action, particularly in an old industry which is accustomed to working individually, it is extremely difficult to develop co-ordination in thought and action. But these obstacles are as old as time.

The highest type of development in modern industry will be that of self-government. And the only hope of

(Continued on page 446.)

They Come

This is the time of the year when the textile school graduate receives his blue-ribboned and red-sealed diploma amid the smiles of Father that his expenses are now ended and the tears of Mother that Willie is now really a grown-up man—and they are both mistaken.

Next to a three-legged giraffe a young graduate is the most impossible thing on earth.

Believing that, because he has been wearing overalls two hours every Tuesday and Friday afternoon, he is an expert mechanic, and because he analysed the town water supply, he is a chemist, he is convinced that the wide world is waiting for him to twist its tail, awaken it and lead it into worlds of commercial and scientific success.

The average young graduate is as aimlessly active as an intoxicated ant.

He marvels that the Almighty should have chosen him to be the Moses of the textile industry to lead it from its camps of desolation and despair into the land of financial honey.

But Moses died and he slept with his fathers, and in a short time the expectations of the graduate will die and he will live with the old man.

The young graduate is surer of himself than a Treasury income tax investigator.

He believes he possesses more knowledge than is contained in an encyclopaedia, but forgets that no one uses an encyclopaedia except to find a five-letter word meaning an Icelandic sunstroke or the height of the equator from the earth.

He is so pleased that he did not expose the actual amount of his knowledge and bring the blush of shame to the cheeks of the professors, and the first night after graduation he hints to the family that they might as well commence thinking about junking the old homestead and moving to his estate, and that Father and Mother should consider having their corns peeled for dancing pumps.

These young fellows are fast thinkers—along certain lines.

The original air castle was built by a young fellow whose graduating thesis was "How Far Must You Dig Down into the Earth Before You Are Digging Up Toward the Other Side?"

A graduate's head is so filled with book knowledge that there is no room for an original thought.

But——

Look out, you old-fashioned dyer!

This young fellow, who knows sixteen practical methods for waterproofing cotton, is liable to take the place of a rayon dyer—and keep it successfully.

A young man's memory is a well of information, and his ingenuity is the rope that will bring up the bucket overflowing with practical suggestions.

Look out, you old-fashioned dyer, for this young graduate filled with a stock knowledge and bubbling over with youthful energy and youthful inquisitiveness.

Youth knows no defeat, and it is only age that crumbles up beneath the blows of disaster.

It does not take long for this young man to appreciate that what he thought was knowledge was in reality ignorance.

It does not discourage him, because he must bridge the gorge between theory and practice.

His lessons in analysis enable him to determine the elements of proper application, and his knowledge of synthesis enables him to build up the successful substance for which he strives.

The chemical problems that bring furrows of care into the brow of the old-fashioned dyer, bring only smiles to his face, for they are so easy—when you know.

The old-fashioned dyers, who have never gotten beyond the acid-basic-direct era, must make way for this army of well-equipped young men.

The dye house cannot lag behind the other mill departments.

The mechanical departments of a mill advance only by means of new machines.

Give a weaver a new loom and the loom does the work.

The chemical departments of a mill advance with chemistry and with machinery.

Give a dyer a new dye, and the dyer must do the work. A dyer who is chemically blind cannot see the wonderful advancement in the dye industry, and, hence, cannot take advantage of it.

The old-fashioned dyer must brace up, study, investigate, think.

He must learn at least the fundamentals of the work he is performing every day.

To know the "why" is to know the "how."

The reasons for a difficulty suggest the remedy to those who have a supply of information upon which they can draw.

This army of young men is marching rapidly upon the camps of the uninformed, and no one can withstand the attack of scientific knowledge.

We need more of these young graduates, with their exaggerated importance and self-independence, for the future of the textile industry will be in their hands, and it can have no better assurance of success than that it will be cared for by those who have a scientific training.—"Textile Colorist."

NEW AGENCY.

Messrs. Wm. C. Jackson report their appointment as Australasian agents for Messrs. Maschinenfabriek Enseidel, G.M.B.H., of Enseidel, Saxony. This well-known Continental company specialises in the construction of full-fashioned hosiery knitting machinery of the most modern design for high production, and combines in this machinery all the latest improvements, including attachment for clocking, etc. Messrs. Wm. Jackson, whose address is 383 Flinders lane, Melbourne, C.1, will be pleased to supply further information to interested readers.

Readers who do not file "The Textile Journal of Australia" for reference will assist us by handing the journal to business friends.

Imports of Wool from the British Empire Into the United States During Twelve Months Ended December 31, 1928

(For explanation of these figures read article on opposite page.)

Countries of Production.	Countries of Immediate Shipment. Lb.	Carpet Wool. Lb.	Clothing Wool. Lb.	Combing Wool. Lb.	Mohair, Hair of Angora Goat, Alpaca, etc. Lb.
Denmark	United Kingdom	—	—	5,297	—
France	United Kingdom	65,000	—	—	—
Germany	United Kingdom	46,850	—	—	—
Iceland	United Kingdom	84,232	—	—	—
Irish Free State	Irish Free State	1,449,571	—	2,021	—
	United Kingdom	28,775	—	—	—
Malta and Cyprus	United Kingdom	49,321	—	—	—
Norway	United Kingdom	3,071	—	—	—
Portugal	United Kingdom	416,818	—	—	—
Soviet Russia in Europe	United Kingdom	260	—	—	—
Spain	United Kingdom	84,280	—	—	—
United Kingdom	Irish Free State	215,482	—	74,593	—
	United Kingdom	16,706,677	1,189,602	6,658,482	58,204
Canada	Canada	33,914	2,227,874	5,264,411	1,133
Argentina	United Kingdom	145,622	118,696	292,331	2,383
Chile	United Kingdom	--	208,855	—	—
Falkland Islands	United Kingdom	—	7,157	—	—
Peru	United Kingdom	92,201	—	—	51,392
Uruguay	United Kingdom	—	—	332,331	—
	Canada	—	—	11,760	—
Arabia	Iraq	30,720	—	—	—
British India	United Kingdom	13,087,839	—	7,503	—
	British India	11,481,280	9,875	—	—
	Iraq	31,256	—	—	—
China	United Kingdom	634,343	—	—	1,286
	British India	531,786	—	—	—
Iraq	United Kingdom	73,928	—	—	—
	Iraq	6,178,785	—	—	—
Kwantung	United Kingdom	10,128	—	—	—
Palestine	Palestine	2,215	—	—	—
Persia	United Kingdom	1,217,478	—	8,719	—
	Iraq	302,866	—	—	—
Syria	United Kingdom	62,593	—	—	—
	Iraq	60,534	—	—	—
Turkey	United Kingdom	122,448	—	1,018	451,192
	Canada	629	—	—	—
	Iraq	253,590	—	—	—
Australia	United Kingdom	—	184,019	245,086	—
	Canada	—	10,515	9	—
	Australia	14,505	6,304,772	20,038,466	—
New Zealand	United Kingdom	—	1,097,694	6,417,140	—
	Canada	—	—	28,015	—
	Australia	—	—	3,750	—
	New Zealand	—	1,868,893	7,728,853	—
South Africa	United Kingdom	—	20,206	130,770	1,140
	South Africa	10,941	342,645	4,056,457	668,794
	Other British South Africa	—	—	10,202	—
Egypt	United Kingdom	92,198	—	—	—
	Iraq	1,680	—	—	—
Total imports from British Empire (119,739,357 lb.)		53,595,816	13,590,803	51,317,214	1,235,524
Total imports from other sources		95,729,969	4,816,786	21,309,641	3,033,922
Grand total from all countries (244,629,875 lb.)		149,325,785	18,407,589	72,626,855	4,269,446
Percentage purchased from British Empire 49 p.c.		36 p.c.	73 p.c.	70 p.c.	28 p.c.

The United States of America as a Wool Consumer

Specially written for this Journal by Hiram T. Nones.

Perhaps few people realise that the United States of America is probably one of the largest, if not the largest actual consumer of wool in the world to-day. Besides being the second largest wool-growing country, the United States must, of necessity, import about one-half of its total requirements. In the calendar year of 1928 these imports amounted to 240,360,000 lb., of which roughly three-fifths was for the manufacture of carpets, and two-fifths, or over 91,000,000 lb., was suitable for clothing purposes and fabrics. Of this amount, according to the official figures of the United States, 43,900,000 lb. was supplied by Australasia, of which 8,000,000 lb. was purchased through England. It so happens that the United States customs officials require the country of origin, as well as the country of shipment, to be stated on all wool invoices, and it is from a tabulation of these imports for the year of 1928 that I have been able to determine the fact that the United States imports from the British Empire (including mandated territory) 73 per cent. of the clothing wool, 70 per cent. of the combing wool, 36 per cent. of the carpet wool, and 28 per cent. of mohair imports, being the product of thirty different countries. (See table A.) To Australians and New Zealanders this final analysis of the actual destination of certain grades of fine wool should prove enlightening, for the obvious reason that the ultimate consumer is the individual to be considered when launching a campaign for the greater use of wool.

In the United States of America to-day there is a movement fostered by the Wool Institute for a greater use of wool. Those in charge of that movement have a travelling exhibit known as "The Golden Fleece Pageant," which is being moved periodically to various parts of the country. I am inclined to believe that this movement in America will stimulate a greater use for wool in the future, if it has not already done so, for in reviewing the imports of combing wool into the United States for the first six months of 1929, as compared with the same period of 1928, the increase shown is about 20 per cent. This increase may, or may not, be a reflection of the Golden Fleece movement, which, by the way, has only been under way for the same six months period of 1929.

In addition to the large imports of raw wool, the United States imported, during 1928, 36,448,686 lb. of semi-manufactured wool, consisting of noils, flocks, waste, tops and yarns, or a grease equivalent weight of 51,750,000 lb. of raw wool.

During the same period of 1928 the United States imported woollen and worsted cloth, weighing 9,983,217 lb., which would have a grease weight corresponding to 26,621,912 lb. of raw wool. Seventy-seven per cent. of cloth imports were supplied by the British Empire.

In addition to the above, there were imported wool hats and hat bodies of wool weighing 5,349,366 lb. or grease weight of 14,256,400 lb. of raw wool. The foregoing does not include carpets and rugs valued at over £4,500,000, nor knit goods valued at over £5,000,000. The reader will observe that, despite these two exceptions, the raw wool

imports, together with the semi-manufactured and manufactured items enumerated, the United States imports of raw wool in the grease amount to over 337,000,000 lb. equivalent. To this amount must be added 65,000,000 lb. greasy wool content of a rather obscure and unexpected source.

The other item of importance to be considered in calculating the consumption of wool in the United States of America is the imports of lamb and sheep skin furs, which, during the twelve months ended April, 1929, amounted to over 10,000,000 skins. They are used largely for lining leather coats and for the manufacture of coat collars. This important item is generally lost sight of for the reason that it is treated statistically, and otherwise as furs, but from the graziers' point of view it is substantially a wool item, and finally becomes what might be characterised as a new use for wool. Were it not used for coat and collar linings it would most assuredly have to be sheared and added to the wool supply. Calculating 6½ lb. of greasy wool per skin, this would amount to over 65,000,000 lb., or roughly 10 per cent. of the American consumption (see table B for imports).

As the United States of America is not a wool exporting country, either in raw material or otherwise (exports being 1 per cent. of imports), the home supply, plus imports, gives a comprehensive idea of the potential market for wool. Thus, with an internal production of 251,000,000 lb., 244,000,000 lb. actual imports of raw wool, plus 65,000,000 lb. as sheep and lamb skin furs, and in addition over 92,600,000 lb. (grease weight equivalent) of semi-manufactured and manufactured goods, as previously indicated, gives us a fair idea of the huge requirements. Still, this 740,000,000 lb. amounts to something less than one-fourth of the world's wool clip. Contrasted with this position is the important fact that the United States of America uses over three-fourths of the world's silk, one-third of the world's rayon, one-third of the world's cotton, and one-third of the world's jute and gunny. On account of the large number of consumers in the United States, should the "Use more wool" movement be successful in increasing the demand by even 10 per cent., it would require roughly 70,000,000 lb. additional wool.

There are something like one thousand wool manufacturing mills in the United States, and since 1924 the activity of wool machinery has been averaging about 70 per cent. of the maximum single shift capacity, therefore leaving ample room for improvement in the woollen and worsted manufacturing industry in the United States, as well as in England. Unfortunately, however, the relative cost of wool is higher to-day than either silk or rayon, as compared with pre-war average, without, apparently, any visible means of lowering the growers' cost of production. Hence, the solution to the problem narrows down to research within the industry to determine what factors—style-elements, colour appeal, and a mixture of other fibres—are necessary to popularise wool. In 1925, in an article written for a New York textile trade journal, I ventured a statement that the use of rayon as an admixture with other fibres would, in itself, sell more fabrics than all the salesmen in the business. Despite a flood of differentiating opinions at the time, I am able to note that in every succeeding year consumption in the United States of both silk and cotton, as well as rayon, has been greater than during any previous year in history.

U.S.A. Imports of Lamb and Sheep Skin Furs‡ for Twelve Months Ended April, 1929.

	From the British Empire* Undressed.
Country of Shipment.	No. of Skins (Free).
Australia	709,817
New Zealand	1,623
United Kingdom	867,204
British South Africa	948,142
Canada	96,593
British India	34,726
Aden	7,200
Iraq	60,590
Total from British Empire	2,725,895
Total from Other Countries	7,389,008
Total from all countries	10,114,903†
Percentage from British Empire	36 p.c.

Estimated wool content (greasy), 65,000,000 lb.

‡Contains a small amount of kid and goat skin furs.

*Including the mandated territory of Iraq.

†Not including 263,736 sheep and lamb skin furs dressed.

SLOW DYEING GIVES SOFTEST WOOL.

Slow dyeing gives the softest wool. If dirty wool gets in the dryer, the odour goes over the whole mill. Besides, on account of the heat, the leaves on the bark of the wool fibre open up, and allow the dirt to be absorbed by the inside fibre. If this happens, the wool is spoiled, causing poor dyeing; the colour will not go on evenly, and will not be fast, and, besides, will look dead and dull. Rewashing doesn't do much good. If any, felts the wool and makes it worse, because such wool can never be perfectly cleaned.

Rewashing, redyeing, refinishing, and even redrying do not improve the goods. Figuring the expenses, such as water, steam, soap, dyestuffs, labour and time, a mill is better off to sell such goods cheaper than to try to sell them as perfect merchandise, risking at the same time the reputation of the mills.

Best Method of Dyeing.

The best way is to start the dyeing of wool or shoddy at about 100 degrees, with little acid (some colours without any), run 20 minutes without steam, then turn on steam, put one-third of the required acid, bring to boil in 20 minutes, then add another third, and the balance during the boiling. Some dyers believe in hard boiling, giving so much steam that the kettle boils over. This is only wasting steam, and hurts the wool, because wool, by flying around, starts felting too much. Gentle boiling gives better results, because such wool is not felted at all, making it easier for the spinner to handle.

Water boils without pressure at 212 degrees. No matter how much steam is turned on, hard boiling is only wasting steam. It is a sure thing that the less wool is handled in boiling water, the better yarn you will get, and the colour is just as fast, if not more so, than on wool which is boiled to a piece of felt.

—"American Wool and Cotton Reporter."

Wool Market Review

(Continued from page 399.)

Another point, and probably the vital one at that, is just how would the financial readjustment necessary under such a change affect the position—not alone in Bradford, but all the other great wool competing nations, whose buyers are always transferring large credits from overseas and paying for wool purchases that extend into many thousands (last season's clip was estimated to be worth 65 millions).

Bankers are of the opinion that any massing of finance over too short a space of time would not be advisable.

The dealing element of the trade, indirectly connected with Bradford trade, naturally falls in line with the proposal. Under the glutting scheme, they would be sure to find pickings and then be prepared "to carry the baby" either in the raw or shape of tops, until later in the season, when quantities would be in short supply.

FUR-BEARING RABBITS.

Of interest to the textile trade in general is the report that the Minister of Agriculture in Sydney has approved of the conditions governing the keeping of Angora and Chinchilla rabbits.

Evidently they intend to commercialise them on a large scale, with the result that there has been a hue and cry from the pastoralists. It should be pointed out, however, that, according to reports, the breeds mentioned are not identical with the present type familiar to our country, but are of the non-burrowing sort, and, from all accounts, are "shorn" and produce a "wool or fur" that is extremely soft in handle, demandable and of considerable intrinsic value.

The writer has in front of him a sample of Angora "wool or fur" just received from London, the price being quoted at 35/ per pound.

For the benefit of overseas readers, it will be, perhaps, interesting information that large quantities of rabbit skins are on offer in various Australian centres every week, and prices paid quite recently ranged from 35d. per pound for does up to as much as 85d. for first winters.

They have been even at a higher level than this during the present season, and although termed a "parasitical trade," there is no mistaking the fact of the excellent returns available to trappers, etc., at a minimum of expense.

THE BUDGET.

The Federal Government has decided to impose additional revenue duties to produce £2,750,000. It is interesting to note the articles listed include artificial silks, the duty being altered to 25 per cent. British preferential tariff and 35 per cent. foreign.

Although the Budget as a whole is not viewed in a favourable light by the general public and traders, the step taken in the case of the above-mentioned goods gives satisfaction.

It certainly appears as if the recent discussions on the danger of artificial fibres to Australia's greatest asset—wool—have been forced home to politicians, and they are directly joining in the "Use More Wool" campaign in a very effective manner.

Success or Failure—Why?

Up-to-Date Merchandising and Economic Production.—The Basis of Success in the Clothing Industry.

We hear the cry now and then that the clothing business has gone to the dogs, conditions are terrible, etc. That people are more interested in radios and automobiles than they are in their clothing; that many concerns which produce a meritorious product are shut down and are on the verge of bankruptcy. Things are pictured rather gloomy.

Nevertheless, if we look thoroughly and without prejudice into the various markets and their activities, we will discover that while conditions are not so bright with some concerns, others are as "busy as bees" and are expanding every day to meet the consumers' demand. We wonder why this is? How is it that while part of the trade is slack another part of the trade manufacturing the same class of merchandise is getting all the business it can handle? What is this magic formula that makes for success in one concern, while the other is dying by inches? What is there lacking in one that makes for prosperity in the other; or what are the characteristics of one that spells doom, while the other continues getting the business and gathering in the shekels?

Manifest to Keen Observer.

The keen observer does not have to ponder long before he is able to detect certain defects in one that is not noticeable in the other. He will see in one concern progressive ideas in merchandising, simplified construction, concentration and efficient and economical production; while in the other he will see old methods of merchandising a varied line of garments, large assortments of woollens and trimmings, a big overhead, many styles and numerous prices which still smack of the methods of a generation ago. Here he will see that very few changes have been made in those concerns that are plodding along the old route. They are trying to manufacture a quality product, a stylish product; they have not set their goal, they are still moving in every direction to find out just which one is the most profitable. In order to keep up appearances slight changes are made in the machinery and in the fixtures. A sumptuous showroom is maintained, but the prices of their product are from 15 to 25 per cent. higher than the successful concerns. This is due undoubtedly to the reasons as outlined above.

One thing that is necessary to-day in order to assure a success in garment manufacturing is a definite merchandising policy or goal. Retail concerns are not buying as they used to. You cannot sell merchandise on good fellowship and on friendliness. It must be based solely on the merit of the product, its construction and its price. It is impossible to produce a varied line of garments to compete with a concern that concentrates on a specific priced line that is simplified. The retailer is tired of paying for all the inefficiencies of the manufacturer—that is, the up-to-date retailer, the one who is a merchandiser, who understands style and quality, and these retailers are the only ones that are surviving these days. There are still a few of the inefficient ones who will soon pass out of existence, and the manufacturer must be gaited to compete with other concerns in order to give the retailer the merchandise he requires at a price.

Simplification Not Difficult.

It is not a difficult proposition to simplify a line. Others have done it with marked success. They are the outstanding pioneers in modern merchandising of clothing, and it would be well for others to follow. It is not necessary to make a varied lot of goods to get a volume of business. The fact is that the greater the concentration, the less the cost of production and the greater the volume of sales. This works automatically with those concerns which have concentrated on a certain priced garment, or which have limited the number of styles in lines they manufacture. It is not necessary to go to the extremes in this matter, as some houses have done, by only making one or two models or a one-priced garment in only a few styles of material. Nevertheless, it is rather simple to reduce the number of garments and styles of fabrics handled at least 50 per cent. and also reduce the number of lines. Instead of making one-half dozen different lines that wholesale at £4/10/ up to £7, it is best to concentrate on two or three lines at the prices that are best suited that will work out harmoniously with the organisation.

In order to do this successfully, it is essential to cut down the overhead to the bone. Nonproductive help should be let go, and old men should be retired. It is better to pension them than to keep them around doing nothing and interfering with the normal progress of the house. Executives who will not fit in with a scheme of this sort should also be retired. This theory of concentration is an old one. It has been practised in the automobile field for the last fifteen years with marked success. Henry Ford is a major example. The General Motors Co., in order to compete with Mr. Ford, has carried out the ideas of simplification in their various plants. The result has been that they have greatly increased their sales on their different products.

The designer is an important factor in the simplification scheme. Many concerns think a designer is only necessary where they make a great variety of garments. On the contrary, he is just as important where they make two or three garments. These two or three must be correct. They require continual concentration to perfect the garments, so that they will be simplified to the extreme, and go through the factory without any lost motion. There are few designers in the field who can cope successfully with the simplified idea. If you plan to simplify your garments and your designer is not of that temperament where he can concentrate and closely study the product so as to perfect it, it is best to look about and get one who can; because the simplified proposition depends entirely on economic production, and only one who is able to meet the conditions in every phase can make a success of this proposition. Of course, up-to-date machinery, proper layout of factory are all esentials to make a success. It is much easier to break in help on a simplified product than where a varied number of garments are manufactured.

There is no question that concentration and simplification will decrease the cost of production, increase sales and make for survival.—"Clothing Trade Journal."

"Jantzen" Progress in Australia

Specially Contributed.

The dictates of fashion are autocrative and have no bearing on personal comfort, hygiene or usefulness. Fashion decrees, and woman follows, with mere man as a good runner-up.

The origin of a fashion is as intangible as its sudden fall from power, and manufacturers are ever alert keeping pace with the never-ceasing changes affecting their own particular industry.

Those engaged in the manufacture of bathing suits followed the capricious designs of fashion, irrespective of comfort or swimming requirements. Next to swimming in the nude, which is slightly in advance of our present puritanical state of civilisation, swimmers had perforce to be content to enter the water garbed in a costume that was seemingly designed to hamper and discourage their healthful activities and make swimming a penance, even a danger, instead of a joy.

Men grumbled, and they protested against a costume that compelled them to forego the full enjoyment of a swim, but, not having the necessary knowledge to design the ideal swimming suit, they had to put up with the existing order of things, which decreed that man was not meant to have a perfect swim. But the tide of fashion turned at last when the combination of swimmer and manufacturer was discovered in the person of C. C. Jantzen.

The Jantzen swimming costume was the direct outcome of a personal knowledge of swimming requirements and experience of designing and manufacturing. The result has to be seen and worn and used to be fully appreciated. Those who have enjoyed a Jantzen swim agree with the slogan, "The suit that changed bathing to swimming."

Jantzen (Australia) Ltd. opened their model factory in Parramatta road, New South Wales, in July, 1928, and already their name is a household word wherever swimmers foregather.

Under the capable management of E. C. Klindworth, operatives have been trained in Jantzen methods, and the factory is supplying to-day not only the ever-growing demands for bathing suits in the Commonwealth, but is actually shipping them to New Zealand, where Jantzen suits are fast becoming as popular as they are in Australia. From a statistical viewpoint these shipments do not materially affect the trade between the two countries, but economically speaking they are of the utmost importance.

The textile industry of Australia is the natural secondary industry of the Commonwealth, and our future prosperity depends to a great measure on its growth and expansion.

Messrs. Burns, Philp and Co. Ltd., the sole selling agents for Jantzen, are to be congratulated on the very able manner in which they handle the company's products.

EVILS OF PRICE-CUTTING.

At the annual meeting of the Fine Cotton Spinners and Doublers' Association in Manchester recently the chairman, Mr. Herbert W. Lee, commented on price-cutting, and Colonel Brocklehurst stated that "the wholesale and most unnecessary cutting of price" must inevitably lead to the Bankruptcy Court. He likened price-cutting to a disease. It is a simple fact that it is no more a disease than is high profit-making during times of exceptional prosperity; profit-making and profit-losing—to use an expressive but incorrect word—both result from the operation of the law of supply and demand. In Lancashire during recent years, and especially in the American section, and also in Yorkshire, orders have been accepted which have shown little or no margin of profit, but machinery has been kept in operation and heavy losses have been avoided. It has never been considered immoral or non-moral for a buyer to take advantage of a market that was in his favour; it may be unwise and unfair for a manufacturer to accept orders without profit, but the whole problem of price-cutting is an exceedingly complicated one. A price that may show a very fair profit to one firm would result in a considerable net loss to another.

Even in industries where standard systems have been approved and accepted there is plenty of scope for what is call "price-cutting." There is also the competition between countries when hours of labour, wages, and factory conditions affect prices. Price-cutting has been very pronounced in Yorkshire and Lancashire in recent years, which was inevitable in industries comprised of a large number of comparatively small manufacturing units, in which overhead expenditure, mill equipment, and sales organisation are so varied. Commenting on the reduced demand for the manufactures of the Fine Spinners' Association, Mr. H. W. Lee said:—"In addition to the difficulty of keeping spindles going, they had had to contend against great competition, and margins all round had suffered seriously. A very marked feature was that this quiet period in their particular qualities of textiles had not only affected their own mills and those generally spinning Egyptian cotton in this country, but had also been very marked in the markets abroad, with the sole exception of France, in mills depending upon the same class of trade.

Mr. Lee put his finger on the sore in suggesting that many manufacturers are without a great knowledge of the cost of production. In normal times it may not be necessary—although it is always desirable—to know the cost of every item and process in a factory, but in dull times manufacturers who do not accurately cost every part of a process cannot survive, and while they continue to manufacture are a menace to the industry to which they belong. Fortunately for all sections engaged in it, modern industry is conducted on more scientific lines than formerly.—"Textile Exporter."

Readers who do not file "The Textile Journal of Australia" for reference will assist us by handing the journal to business friends.

* * * *

We're in business to please the customers.

THE ORIGIN OF FASHION.

Fashion is universal. It has influenced all races and all classes. No object used by men has been excluded from its domination. Clothes—more closely associated with fashion than anything else—houses, books, furniture, motor cars, and even the human form and morals change constantly, as the vogue commands; and what yesterday was considered the height of good taste, to-day is discredited and despised. Fashion is one of the most powerful of all social forces.

What is this element slandered by the nickname of **Dame** Fashion, as though it were anything so stale and unprofitable as the name suggests? It is a social factor of profound biological importance. Its first principle is similarity; its second, variation. Men instinctively distrust any other man who is markedly different from themselves. When the distinction has taken the form of religious, moral and political opinion, they have often persecuted offending members of society, sometimes even unto death. Persecution of the unlike exists to-day, even in connection with clothes. The man who dresses extraordinarily is met with ridicule, which is persecution in one of its most deadly forms, or with social ostracism. This explains why men endeavour to follow the vogue, through fear of being ridiculed and counted of little worth; as also through an instinctive knowledge, which they are not necessarily conscious of, that the way to be respected by their fellows, male, and particularly female, is approximation to the standard of normality. This is the first principle of fashion.

Variation.

The second principle of fashion, variation, arises from the desire of men to distinguish themselves from their kind. The fulfilment of this desire may take the form of eccentricity, in which case the subject is derided, despised or hated. Or it may take the form of introducing something just a little different from the normal, which, if the innovation is distinctive enough to be noticed, but not too distinctive to excite distrust, and if the subject is respected, will often be imitated by other men. Accepted changes in fashion are just this discreet difference from the normal, introduced by men whose position and reputation entitle them to esteem by their social peers and by those in an inferior social position.

Men's fashions to-day, as all the world agrees, are created by Englishmen, mainly by members of a very limited section of society, who, anxious to distinguish themselves from their fellows in some way or other, and having the means and time to study dress, from time to time introduce little touches of individuality into their clothes. These innovations are sometimes originated by the fashion leaders themselves; sometimes by members of tailoring and outfitting trades, manufacturers, merchants or retailers, in which case the fashion leaders sponsor, rather than create, the vogue. The innovations are marked by members of the trade and by the public. Sometimes no further notice is taken of them; sometimes they are adopted by a few, but fail to win general approbation; sometimes they are accepted enthusiastically, in which case a new vogue has been created.

—"Men's Wear Organiser."

Our Bradford Letter

Specially written for this Journal by
S. B. Hollings, F.T.I.

USING DOMESTIC WOOL FOR MANUFACTURING PIECE GOODS.

Hints to Australian Mills.

An interesting announcement appeared recently to the effect that four Leicester shearling rams had been sold to an Australian flock master by a Mr. Megginson, winner for four years in succession of the Perpetual Challenge Cup valued at £50, given by the Bradford Chamber of Commerce for competition at the Yorkshire Show. It is also understood that the rams will be exhibited at the Royal Agricultural Society's Show at Melbourne this year. Much of the interest of this transaction lies in the breed of the sheep. Australia is very largely a merino wool growing country. The total quantity of merino wool grown in Australia and New Zealand is larger than crossbred, but the fact that there is not even more merino produced cannot be attributed to the climate or the nature of the soil. It is rather an economic development which has been seen even more completely in New Zealand than Australia. Time was when nearly all the flocks in New Zealand were merino, but now they are almost entirely crossbred, the development of the frozen mutton industry having revolutionised the wool production of the country, and at the same time contributed in no small degree to its wealth. The actual purpose for which the four Leicester rams would be used was not stated, but what the effect of their introduction among merino ewes would be is fairly obvious, so far as the fleece of the progeny is concerned.

Variety of Types.

Australian pastoralists are, of course, at liberty to breed according to their own judgment, and the class of wool which they find most profitable to produce. So long as the crossing is not done indiscriminately, and does not result in the production of fleeces of irregular quality, neither buyers nor users have any right to complain. In their own sphere Leicester and all other deep quality wools are extremely useful. Sometimes the writer wonders whether growers and users in one country grasp what great variety there is in the wool produced by the various breeds of sheep in other parts of the world. It is really remarkable, as one mixes among wool people in Bradford, to find how the industry is specialised.

Among English merchants there are some whose interests are confined almost entirely to the wool grown in one particular district, and who would not claim to know very much about what is produced in another. Just as some buyers concentrate upon New Zealand crossbreds, and have only a slight knowledge of Australian merinos, so there are some merchants who deal extensively in what are known as "deep" English wools, but do not pay any great attention to Downs. It is, of course, impossible to draw any hard and fast lines, some merchants having a fairly good working knowledge of all classes of English or Colonial wool. The value of specialisation is, however, quickly emphasised when one converses with a man who understands one type of raw material thoroughly.

Devon Wool.

As this is the period of the year for marketing the English clip, a good deal of attention is being paid to it, not only by buyers, but also by those whose primary interests are in Australian or other wool. Among the wool which is coming on to the market is Devon greasy. This is grown in the county of that name, and has characteristics peculiar to itself. Its quality is 36's to 40's, and it belongs to what is known as the lustre class, among which are included Lincoln, Leicester and Yorkshire grown wools. It will be noticed that the Lincolns and others, bearing, as they do, the name of the district in which they are produced, are Northern-grown wools. It is interesting to find that whilst all the Downs, which are 50's to 58's quality, are produced in the South of England, the Devon wool also comes from a southern county. This, of course, is attributable to the fact that various breeds can be kept even in the South of England, and to the variation in the soil which can be found in that part of the country. One of the features of Devon wool is its freedom from kemp. On this account it is largely used for making sheets for press-packing purposes. The flocks are small ones, and as one Colonial merchant, who has had opportunity to examine it, has quite rightly commented, the wool has the appearance of being somewhat "coddled." The farmers naturally take a very personal interest in their flocks, and there is no doubt that the housing done during the lambing season has some effect upon the appearance of the wool. It is, however, of a very useable type, though quite distinct from a good deal of the other South County produce.

Using Crossbred Wools.

Perhaps some reader wants to know what bearing the above has upon the textile manufacturing side of the Australian trade. Let mill owners reverse the question and see if they cannot evolve some new cloth out of similar wools to those we have mentioned, and which are grown in Victoria. Take, for instance, Leicester-merino crossbred wool. There is here raw material possessing very high class characteristics, and they should not be passed over by any Victorian millowner. These wools have always been prime favourites in Yorkshire, and the famous "Cross over SC" mark grown at Lancefield Junction always topped the London market. These and similar wools are to-day as useful as ever in producing high-class medium to fine crossbred serges, both for men's and women's wear, also hosiery yarns, both in whites and coloureds; in fact, they are supreme for turning out really excellent cloths which are well suited for the production of costumes, boys' suits and even outdoor sports wear. Of course, there are still finer crossbred wools, such as 56-58's, which can be all used for similar purposes, and which will give any mill an extra range of fabrics of a better quality. We only point out these facts, which are being turned to good account here in the West Riding, and pass on an idea which can be developed to good purpose by every Victorian mill.

BOOK REVIEW.

"Jute and Jute Spinning," by Thomas Woodhouse, F.T.I., and Peter Kilgour.—This work is published in two volumes. Part I. deals with the production of the fibre, beginning with the source of the plant, cultivation, batching, preparing and carding, while Part II. is mainly concerned with the mechanical progress of the subject, giving a full and detailed explanation of the drawing and roving frames. Part I. has already reached the second edition, and is a recognised textbook. The complete work, in two volumes, demonstrates the thoroughness for which the authors are noted, and their contribution to technical education is a monument to their untiring energy and devotion to patient research work and study. The work is well illustrated, which helps to elucidate further this subject, and each volume is constructed to a comprehensive plan. To the student of jute and jute spinning this work will prove of invaluable assistance. Messrs. Macmillan and Co. Ltd. are the publishers, and the price is 20/ per volume.

The well-balanced modern manufacturing business is operated, at the factory, on the basis of utmost economy of time, space, equipment and stock. There must be a maximum and equilibrium of speed and a minimum of inventory. Thus only is this desired status attained which results in rapid turnover, uniformity of product, and steady employment. This is true, regardless of the size of the business.—Charles Ault.

SILK INDUSTRY OF RUSSIA IS GROWING.

Prewar Peak of 1913 is Far Surpassed During Past Two Years.

After a period of depression following the war, sericulture has been definitely rehabilitated in Soviet Russia, with production during the last few years far exceeding the pre-war level. Certain parts of Russia are well fitted for the cultivation of the silkworm. During recent years peasants in these sections have taken increasing interest in it because of the profit to be derived therefrom. The three main districts in which sericulture flourishes in the Soviet Republics are Middle Asia, Georgia, and Azerbaijan.

Taking the peak year 1913 as a point for comparison, statistics on the combined production of the three large districts reveal a tremendous growth. In 1913 the total number of boxes of silkworm eggs amounted to 165,000. By 1925 this figure had been increased to 255,000 boxes, and since then approximately 100,000 boxes per year have added to that total. Thus in 1928 the production of eggs had risen to 569,000 boxes, over three times the size of the 1913 crop. Exporting of part of the crop began in 1924, when 8000 boxes were shipped. Last year 90,000 boxes cleared for foreign consumption.

Three Districts Produce Silk.

Of the three large producing districts Middle Asia is the leader by a considerable margin, about 60 per cent. of the silkworm eggs coming from there. Georgia ranks second as a sericultural section, with Azerbaijan rapidly approaching it and threatening to overtake it.

Cocoon crops in the Union of Soviet Socialist Republics have shown a similar increase during the past two years when compared with the year 1913. In the intermediate years following the war production fell to a very low level, but gathered considerable strength in 1924, when 54,600 centners (one centner equals 100 kilogrammes) were produced. This represented 56 per cent. of the peak prewar level reached in 1913. By 1926 the cocoon crop had increased to 93 per cent. of the 1913 figure and succeeded in surpassing it by 7 per cent. in the following year. Last year the 141,800 centner crop exceeded the highest one before the war by 46 per cent. The largest percentage of increase took place in Middle Asia, where the 1928 crop superseded the prewar level by 91.6 per cent.

Another evidence of the growth of sericulture in the Union of Soviet Socialist Republics is the tremendous jump in the area of land devoted to nurseries for the cultivation of mulberry trees. In 1924 eighteen hectares (one hectare equals roughly two and one-half acres) were devoted to this, while in 1928 the figure had advanced to 847 hectares, of which 545 were in Middle Asia and Georgia.

Scientific Breeding Used.

By special breeding and application of scientific methods the yield of cocoons has been increased by 8.2 to 14.5 kilogrammes per box. Special breeds have yielded as high as 41 kilogrammes, as compared with the normal production from a box of cocoons of 24 to 33 kilogrammes. (A kilogramme is, roughly, 2.2 pounds.)

After all, figures on raw silk tell the tale. The output of raw silk in 1925-1926 amounted to 135,000 kilogrammes. In the season of 1928-1929 this had increased to 508,000 kilogrammes, a growth of about 275 per cent. The number of spinning machines in operation has advanced from 275 in 1925-26 to 1430 in 1927-28.—"Journal of Commerce."

Wool Reports

Through the Courtesy of Winchcombe, Carson Ltd.

WOOL AND PRICES FOR GOODS.

The price of the materials and clothing made from wool has undoubtedly been a hindrance to their free use of late years. For a time it became the fashion overseas to blame the price of wool entirely for the selling price of goods. When wool was very dear some years ago it admittedly assisted in sending the cost of fabrics, etc., up, but, unfortunately, its decline in value does not seem to have helped much in bringing the cost of goods down.

Blame can no longer be attached to wool for the prices demanded for clothing or any other articles. That fact is gaining recognition abroad. Reports indicate that the day of high prices is passing. The public is disclosing its favour for establishments in which the figures asked for goods are reasonable, and consumption of wool should benefit by that movement.

A similar development has been seen in manufacturing circles. For a long period commission topmakers made large profits in Great Britain, while those who converted the tops into fabrics barely made ends meet. Before the war the cost of combing merino wools in Bradford was 2¼d. per pound. By 1920 it was 8d. In 1921 it was reduced to 6¼d., and was subsequently curtailed further. Latterly the charge has been dropped again, the present figure being 4¼d. Combing charges are now on the average 83 per cent. higher than in 1914. But the decline in costs is a step in the right direction, and should be of help in putting the manufacturing trade generally on a healthier basis. The more quickly the goods made from wool can be purchased by the world's people at lower prices, the better for the welfare of the trade.

The reduction in combing charges, it is hoped, will give a much-needed fillip to English business in tops. For the first six months of this year the total weight of tops dealt with at the Bradford Conditioning House was 26,000,000 lb. During the same period of 1928 it was 29,000,000 lb. The lower turnover, despite the lower cost of wool, no doubt had some influence in inducing those concerned to reduce their rates for combing.

At the moment trading and financial reasons can be brought forward as likely to result in a further decline in wool prices. But, despite those black shadows, most of those concerned consider that wool to-day looks a good buying proposition. Their opinion may be subject to a little shakiness; but even the most conservative admit that it only needs somebody to give the market a strong lead to stop "the rot" seen over the last six months.

Wool has been in an uncertain position on many occasions before to-day. It has safely emerged from them, and in our opinion is likely to do so again. We do not anticipate any sharp rise in prices, but we do expect to see the staple sell freely when the Australian market provides an opportunity to establish a level of prices at which buyers can operate with confidence.

WOOL AND MONEY: THE QUESTION OF VALUES.

It has been stated abroad that, regrettable though reduced wool prices may be, growers cannot get beyond world parity for the staple, whatever their production costs, even if prices get closer to pre-war levels than they have latterly been. But it is certain that if prices prove unprofitable for any extended period, the quantity of wool produced will decline. That is the natural corrective to low prices. Just as the law of supply and demand has brought prices down, in the reverse way it will send them up. If, as the contention suggests, values were to remain permanently on unattractive levels, a general readjustment of monetary affairs, as well as other expenses, would be necessary.

Interest on bank accommodation at wartime and post-wartime rates could not be paid for any lengthy time in any community when the commodity produced was only realising pre-war prices. Similarly, were manufacturers' earnings permanently reduced to pre-war scale, they could not pay post-war bank interest nor probably hope to earn a dividend on the increased capital most concerns show since 1914. And to get lower bank interest it would be necessary to reduce interest on all Government loans floated since pre-war days. That is a "pretty" problem for financial experts.

Despite oversea statements, it is, therefore, likely that less wool would gradually be grown if prices receded much closer to 1913 levels. Lack of profit would prevent land improvements being kept up to the mark; the amount of money available to purchase stud sheep in order to keep the flocks up to standard would be lessened, and so on throughout the industry. Even if the problem of profits were confined to Australia the world's clip would be appreciably affected. Australia grows more than one-fourth of the world's annual clip, and is easily the most important influence on supplies.

Consequently, just as in Australia it is necessary to realise that the day of extreme prices has passed, it is also necessary for manufacturers to accept the fact that, unless a vast change is effected in financial and other conditions, adequate quantities of wool are not likely to continue for them if unremunerative prices are experienced.

WOOL AND SPORTS WEAR.

So much has been heard of the drift away from the use of wool of late years that it is refreshing to see fashion and habit exert their force in the other direction. Surfing and swimming have become increasingly popular of late years. That movement has been most marked in America, at the Mediterranean holiday resorts and in Australia. To a less degree it has developed in other portions of Europe. In the United States, as in Australia, the woollen surfing costume is enjoying wide popularity, having over the last half-year experienced a record season. Fine crossbred wools are used in the production of those goods. Their use in that regard, and in other articles for sports wear, was responsible for the relatively high prices those

wools made last season. The vogue of the felt hat for women is another phase where consumption of wool has benefited. Noils, the by-product of topmakers, are utilised in their manufacture. As a result, while tops were slow of sale, their by-product, noils, were eagerly bought.

Fashion is a "will o' the wisp." The incidents quoted show its effects on trade. Probably at some unexpected time, a trend towards the light woollen fabric for feminine wear will be seen. Were that development to occur, wool would probably be dearer than it is to-day.

FAITH IN CURRENT WOOL PRICES.

Over the last six months reports from manufacturing centres have not been overcheerful, but wool prices are undoubtedly on a good working basis for millmen. For the size of its population, the United States has of recent years shown the most restricted turnover in woollen goods. When the cost of the staple was high, consumption decreased. This year, with lower prices, it has gradually moved upward. From January to April, 1929, the quantity of the staple used in the American establishments was 10 per cent. greater than in the same period of both 1927 and 1928, and 18 per cent. higher than in 1926.

Maybe America is in the vanguard in getting business moving more freely, following on the more moderate cost of the raw material. Bradford now reports a better tone in the demand for merino tops. Latterly Yorkshire has been one of the most confident purchasers of wool, both at Australian and English auctions. In May, Great Britain exported more tops than in any month for over a year. She also experienced improved oversea sales of worsted and woollen yarns. On the present basis of values some British operators indicate that they are prepared to buy good quantities of suitable wools. That circumstance points to faith in current wool prices.

Financial conditions throughout the world are at present against any increase in business sufficient to produce a decided rise in prices. Money is dearer, and, therefore, credit is restricted. Similar financial conditions when wool was high in price must have resulted in a setback in wool values. But much less money is now required to buy the same amount of wool, or the goods made from it, than was the case over preceding seasons. It is quite possible, consequently, that the staple will continue to sell at about recent figures, despite the monetary situation.

If the trade cannot buy freshly shorn wool at the present level of prices, it will have reached a parlous condition. And it is not in that order. Despite its artificial competitors, the sheep's staple is still the world's most serviceable textile fibre.

RUSSIAN TEXTILE EXPANSION.

During recent years the newer woollen textile-making countries have provided the most encouraging conditions for the use of wool. Japan and Russia have been particularly to the fore in that regard, and their expansion has by no means reached its maximum. The Russian authorities planned to increase the output of the woollen mills 200 per cent. between 1927-28 and 1932-33, and by the latter date it is expected that it will be necessary to import twice the quantity of wool taken five years previously. During the period the consumption of raw wool is expected to advance from 42,000 tons to 103,500 tons, the latter being the equivalent of about 700,000 Australian bales. Russia is a large wool producer herself, and is, therefore, able to supply a great part of her requirements, but she is likely to draw upon Australia for increasing quantities of raw material. The growth in her textile industry previously mentioned are plans and so far only partially accomplished facts, but the exports of wool from Australia to Russia last season totalled 57,000 bales, 20,000 bales more than during the preceding year. The increased output of her mills has, therefore, already had results.

BUYING COMBINATIONS.

"The tendency of the use of the quantity discount beyond strict justification is to build up the power of mass buying, because as quantity becomes the determining factor in the distributors buying, it becomes as well the determining factor in distributive selling. Those will survive as sellers who can get the best terms as buyers, and if it is the largest buyers who can sell best the pressure toward buying combinations will be constantly increased. And when this comes about the manufacturer will find himself under the control of the distributive system."—Nelson B. Gaskill.

Sirius Colours

Specially written for this Journal

Some time ago the I.G. Farbenindustrie Aktiengesellschaft placed on the market a special selection of direct dyestuffs under the title "Sirius Dyestuffs." This very complete range offers to the dyer a valuable help when selecting direct dyestuffs which combine the advantage of simple application with very good fastness to light.

The Sirius colours are suitable for dyeing cotton, silk, union, half-silk, and are especially adapted for artificial silk.

When dyed on cotton, the directions for direct dyestuffs apply, i.e., pale shades are generally dyed in an alkaline soap bath (Monopol soap or Monopol brilliant oil, or Prestabit oil) in not too short a liquor at 40-50 deg. C. (105-120 deg. F.), medium and deep shades in an alkaline Glauber's salt bath, near the boil, in as short a liquor as possible. Generally 0.5 to 2 per cent. soda ash is added for rendering the baths alkaline; with Sirius yellow GG, however, the milder alkaline phosphate of soda is used instead, and Sirius green BL is advantageously dyed without any such addition. Not more than 20 per cent. Glauber's salt calc. should be added when dyeing deep shades. The addition of alkali is made in order to increase the solubility of the dyestuff, and for softening the water. Monopol soap, Monopol brilliant oil, etc., prevent a too rapid exhaustion of the dyestuff, with the result that levelling and penetration of closely woven materials made of tightly twisted yarn is facilitated. With such material, difficult to dye through, it is also necessary to add the salt in several portions.

As a class, the Sirius colours level very well, and so may also be employed for the production in a simple manner of fast-to-light compound shades.

Apart from carefully following the dyeing instructions, it is also necessary, in order to ensure satisfactory results, that the materials should be perfectly clean, and that a good quality of water is used.

Silks are generally dyed with acid colours, but if, in addition to good fastness to light, also better fastness to water is a consideration, certain Sirius dyestuffs, e.g., Sirius yellow 5G, R extra, RR, RT, Sirius orange G, Sirius red violet B, BBL, Sirius blue BR, B, 6G, and Sirius grey G, may also be used. These dyeings, on the whole, are satisfactorily fast to washing, especially in medium and pale shades. The fastness to water and washing may be further improved by an after-treatment with tannic acid and antimony.

The Sirius colours are dyed either in a bath containing "boiled off liquor" slightly acidulated with acetic acid, very pale shades in a fatty soap bath without acid, or also with the addition of 10 to 20 per cent. Glauber's salt crystals, and 1 to 2 per cent. acetic acid, 30 per cent. only. When dyeing deep shades, more acid may subsequently be added for exhausting the baths, if required. As a rule the material is entered at about 40 deg. C. (105 deg. F.), the temperature being gradually raised to the boil, and the goods dyed for one-half to three-quarters of an hour at near boiling temperature. The following Sirius colours are also adapted for the dyeing of silk:—Sirius yellow G and GG, Sirius orange 5G and 3R, the Sirius red brands, Sirius Bordeaux 5B, Sirius rubine R, Sirius pink BB, Sirius brown G, GR, R and 3R, Sirius violet BB and 3B, Sirius blue BRR and G, Sirius green BB and Sirius grey R.

An important branch of textile processing is the dyeing of union goods of every description, for which purpose the Sirius dyestuffs will be found very valuable.

There are two methods according to which union goods are generally dyed:—

Either the wool and the cotton are dyed in one bath with suitable acid, and Sirius dyestuffs, with the addition of 10 to 30 per cent. Glauber's salt, by working for one-quarter of an hour at about boiling temperature, and approximately three-quarters of an hour with the steam shut off, or the wool is first dyed with acid colours and the addition of 10 per cent. Glauber's salt, and 3 to 5 per cent. formic acid, rinsed, and the cotton then filled for one hour in a fresh bath at about 160 deg. F., with Sirius dyestuffs, with the addition of 10 to 30 per cent. Glauber's salt crystals and 2 to 3 per cent. Katanol W or WL.

There is no doubt that the introduction of Katanol marked a very important advance in the development of union dyeing. Whilst formerly, when dyeing according to the two-bath method, it was necessary to work cold, with a very short, concentrated liquor, in order to prevent the wool from becoming severely stained, it is now possible to effect a considerable saving of dyestuff by the use of Katanol. Also the temperature may be raised up to about 70 deg. C. (160 deg. F.), with the object of effecting a better utilisation of the baths, without running the risk of the wool absorbing too much dyestuff.

Very beautiful two-colour effects may thus be produced with Katanol W or WL, the contrasts being much more pronounced than when working without these additions.

Half-silk is dyed similarly. Also here the Katanols have proved of great consequence. It may be mentioned that the WL brand should especially be employed for pale shades, or in such cases where only the cotton portion has to be dyed, the silk remaining white.

Of the older kinds of artificial silk on the market viscose and cuprammonium silk, referred to in the following as artificial silk, are still of greatest importance. The latest creation on the artificial silk market—the acetate silk—occupies an exceptional position.

Artificial silk for weaving, knitting and embroidery yarns is dyed in the hank, whereas the different fabrics, also tricots and goods composed of cotton, wool or silk in combination with artificial silk, are piece-dyed. Also for these fabrics Sirius dyestuffs are very largely used nowadays, especially if the dyeings are required to be fast to light, and fastness to washing is of secondary importance.

It is advisable to wash the artificial silk at about 40 to 50 deg. C. (105 to 120 deg. F.) in a soap and soda bath before dyeing.

Pale shades are best dyed for half an hour at about 70 to 80 deg. C. (160 to 175 deg. F.) in a long liquor, with the addition of 0.5 to 1 per cent. soda and 1 to 2 per cent. Monopol soap, or about 5 per cent. soap; medium and deep shades in a shorter liquor at about 90 deg. C. (196 deg. F.), with the addition of 10 to 30 per cent. Glauber's salt, 0.5 to 1 per cent. soda, and about 2 per cent. Monopol soap, or 5 per cent. soap.

With deep shades it is frequently advisable to enter the goods at 80 to 90 deg. C. (175 to 195 deg. F.), and to add the Glauber's salt after about 20 minutes in order to facilitate levelling.

In order to obtain better levelling, the dyeing of cuprammonium silk is generally started at a low temperature, heating to 60 to 80 deg. C. (140 to 175 deg. F.) after a while. Less salt than in the case of viscose silk is used and soap added to the dyebath in order to improve the handle.

Artificial silk fabrics and tubular tricots are mostly dyed in the winch, delicate goods sometimes on the star frame, and very heavy artificial silk fabrics, with the necessary precautions, also in the jigger.

In addition to very good fastness to light, the dyeings produced in this manner also possess good fastness to scrooping and ironing. Notably the range of violets includes such valuable products as Sirius red violet BBL and Sirius violet BL, which are exceedingly fast to light, very fast to ironing and spotting. Of the brown brands Sirius brown GR and BR, which in combination with Sirius orange 3R dye full, deep browns of very good fastness to light deserve special mention.

Recently the Sirius colour range has been supplemented by two direct greens, viz., Sirius green BL and BB. The faster to light of the two is the BL brand, whilst the BB brand, slightly inferior in fastness to light, especially in pale shades, is distinguished by a beautiful shade in artificial light and good fastness to acid.

Artificial silk has also become of great importance in the production of mixed fabrics. Being used in combination with other fibres in a great variety of textiles, the use of artificial silk has, of course, assumed large dimensions. In this connection it must be remembered that artificial silk—acetate silk and very pale shades excepted—generally possesses a much greater affinity for substantive dyestuffs than cotton. The affinity of viscose silk, on the other hand, is not so great as that of cuprammonium silk. It is, therefore, obvious that the problem of dyeing fabrics composed of artificial silks and cotton is not so simple, and much experience is necessary if satisfactory results are to be obtained.

The most important factors on which absorption of the substantive dyestuffs by such mixed fabrics depends, apart from the origin of the viscose or also the use of mercerised cotton, are the dyeing temperature, the volume of liquor and the additions, such as Glauber's salt, soap, Prestabit oil, etc., the effect of which, however, varies in each individual case. Dyeing directions applicable to each and every case cannot, therefore, be given.

Sirius yellow G, Sirius orange G, Sirius red BB, Sirius violet BB, Sirius blue G, Sirius green BB, and Sirius brown G or GR, for instance, on mixed fabrics of cotton and viscose, are dyed comparatively evenly by entering the goods into the cold bath, raising the temperature gradually to about 120 deg. F. and adding the salt later on.

Sirius yellow 5G, Sirius scarlet B, Sirius red BB, Sirius pink BB, Sirius rubine R, Sirius violet BL, 3B, Sirius blue B, Sirius green BB, and Sirius brown G, as well as GR, on the other hand, to produce uniform medium shades, are best dyed at the boil, without any addition of salt. For this reason these dyestuffs are particularly well suited for dyeing artificial silk stockings strengthened with cotton, because, with this material, it is necessary to thoroughly penetrate the seams.

These particulars, on the whole, apply to the dyeing of mixed fabrics of viscose and cotton. Cuprammonium silk, on the other hand, has quite different properties.

Fabrics of cuprammonium silk and mercerised cotton are best dyed near boiling temperature with soap only, the salt, if any, being added towards the end of the dyeing operation.

Applied by this method, Sirius yellow G, 5G, RR, Sirius Bordeaux 5B, Sirius rubine R, Sirius red BB, 4B, Sirius scarlet B or Sirius green BB, in pale and medium shades, for instance, dye fairly even shades. It must be mentioned, however, that the dyeing of such fabrics still offers many difficulties to the dyer, and it would be desirable that the manufacturer of such goods should keep this in mind. The difficulty in obtaining level results on dark shades is not likely to be overcome for some time.

Acetate silk, as mentioned already, occupies a special position amongst the other artificial silks in regard to its dyeing properties. This is due to the fact that, whereas the older kinds of artificial silk represent a regenerated form of cellulose, the acetate silk is an acetyl compound of cellulose, which is spun, dissolved in suitable solvents, such as pyridin. Cuprammonium silk and viscose in their dyeing properties are similar to cotton; acetate silk, however, has little or no affinity for direct dyestuffs.

It is just this peculiarity which has secured numerous special applications to acetate silk. It is extensively used in mixed fabrics. When it is applied together with cotton or artificial silk, or even with unions of half-silk, Sirius dyestuffs may to advantage be chosen for the production of fast to light shades on the vegetable fibres. The acetate silk in such mixed goods is either dyed with the well-known special dyestuffs, or else it is contained therein as a white effect. In every case such dyestuffs will be selected for dyeing the cotton or artificial silk (viscose or cuprammonium silk) as do not stain the acetate silk. The following Sirius dyestuffs leave acetate silk white:—Sirius yellow R extra, RR, RT, 5G and G, Sirius orange 5G, G, Sirius scarlet B, Sirius red BB, 4B, Sirius pink RB, G. Sirius Bordeaux 5B, Sirius rubine B, R, Sirius violet B, R, Sirius brown R, Sirius blue G, BR, BRR, 6G, B, Sirius green BB, Sirius grey G and R.

Fabrics containing acetate silk in such cases must, of course, be dyed with Glauber's salt only, and without the addition of soda, at a temperature below 175 deg. F. The Sirius dyestuffs may be combined without hesitation with the usual acetate silk dyestuffs, such as Cellit fast, Celliton and Celliton fast dyestuffs. Both solid shades and two-colour effects can, therefore, be produced without difficulty in one bath.

A number of possible applications for the Sirius dyestuffs have been described above, and it has been shown that these colours may be used to advantage whenever the dyeings are only required to possess very good fastness to light without having the all-round fastness of the indanthrens.

BUTTERWORTH KLAUDER-WELDON DYEING AND BLEACHING MACHINES.

The well-known firm of H. W. Butterworth and Sons Co. have appointed L. J. Foster and Co. as their sole Australian selling agents.

The Klauder-Weldon hosiery dyeing machines are new in design and principle, and are operating in plants rated the last word in efficiency.

The unique cylinder construction of Klauder-Weldon machines ensures even, level results, and reduces the dyeing time as nearly to the time required for the chemical dyeing action as possible. Articles dyed in these machines are left in perfect condition owing to the fact that they are subjected to a minimum of drastic mechanical handling, and to the comparatively short time they have to remain in the machine.

An important Klauder-Weldon product is the skein machine, which is equally successful in dyeing rayon and raw silk as in bleaching and dyeing raw and mercerised cotton and scouring and dyeing wool and worsteds. The manifold duties this machine will perform will earn for itself the approval of textile manufacturers.

LONDON SERIES OF WOOL SALES FOR 1930.

1st Sale—January 21.
2nd Sale—March 18.
3rd Sale—May 13.
4th Sale—July 8.
5th Sale—September 16.
6th Sale—November 25.

Readers who do not file "The Textile Journal of Australia" for reference will assist us by handing the journal to business friends.

Textile News from Overseas

THE MANUFACTURE OF WOOLLEN BLANKETS IN HARBIN.

Woollen blankets are manufactured by Chinese in Harbin and are sold extensively in Manchuria and North China. The Harbin blankets, unlike those manufactured in England and America, which are smooth and downy, have a rough and hairy surface, resembling in all respects those manufactured in Poland, but function well as a protection against the extremely cold weather of Manchurian and Siberian winter.

The blankets are made from sheep's wool, partly imported from England and partly bought from sheep rearing districts in the western part of Fengtien Province. The wool from England, which has already undergone a refining process, gives a silky and silvery colour, while that from Fengtien Province and Outer Mongolia, in the districts around Hailar, is yellowish and coarse. Large quantities of native wool also come from Chou Tseng, along the Tsingtao-Tsinan railway, in Shantung Province.

The manufacturing process begins by mixing the imported wool with the native wool. The mixture is then made into woollen threads and woven into sheets, according to various designs. The sheets are then dyed, cleaned and dried, the two surfaces being still smooth. The rough and hairy surface of the sheets is made by drawing out woollen hairs from the inner layers by means of a press machine having wire brushes on both edges. Then the sheets are cut into pieces, according to designed lengths. Sometimes the woollen threads are dyed before they are woven into sheetings. Altogether twenty-two processes are required to complete a blanket.

The best class of refined wool from England is bought at Harbin at 2.20 dollars a pound, while the worst kind, at Harbin, at 1.30 dollars a pound. Chinese wool from the western part of Fengtien Province is sold at Harbin at .50 dollar a catty. The wool from the Tsingtao-Tsinan railway districts in Shantung, which is superior to the Fengtien wool in quality, is obtainable at Harbin at 1.30 dollars a catty.

The best grade of woollen blankets are made of purely English refined wool, which presents a shining and silvery colour. The coarsest kind of blankets are made of Fengtien wool, which is of crude quality. The blankets in use weigh from 7 to 10 lb., according to different sizes. Huge quantities of this kind of blankets are sold every year.

It is interesting to note that England, where wool is refined, is not so much of a wool producing country as Manchuria and Mongolia. In fact, a considerable portion of British imported wool is from China. In view of the growing demand for woollen materials by Chinese consumers, woollen goods manufacturers in Manchuria are seriously interested in refining wool locally by equipping their plants with modern machinery and by inviting experts from abroad.

While it is not to be denied that woollen goods manufacturing in Manchuria is already an established industry and trade, local manufacturers seem to have a difficult time in competing with Russian traders, who import Polish blankets on the market. Generally the Polish blanket is subject to an import duty of 15 per cent. ad valorem. The price, being assessed in Poland, has invariably been found to be equivalent to one-third of the selling price on the China market. Thus, in effect, the duty is only 5 per cent. ad valorem. On the other hand, sheep's wool, as different from that in a manufactured state from England, is subject to an import duty of Hk. Tls. 5.60 per picul.

Of the woollen blanket manufacturers in Manchuria, the most noteworthy is the Yu Ching Teh Woollen Weaving Factory. This is purely a Chinese concern, started only about six years ago, with a capital of 650,000.00 dollars, the premises being situated in Fuchiatien, near Harbin. In the factory there are 300 men, 80 women, 20 staff officials, 2 Russians, 1 Polish, and 1 Italian. The factory produces 300 blankets and 300 yards of flannel a day. The authorities of the factory are contemplating the manufacture of serge in the nearest future.—"Chinese Economic Bulletin."

THE SOVIET TEXTILE SYNDICATE.

The Soviet Textile Syndicate has been directed by the Supreme Economic Council in Moscow to make arrangements for the adoption of an invention of the Soviet Wool Trust for making worsted yarn and fine cloth from coarse Russian wool. By this it is hoped to economise to the extent of 15,000,000 roubles next year by obviating the necessity of importing merino wool.

Financial Review

Specially written for this Journal by "A. Stockbroker"

Of recent weeks Share Markets have continued active and firm so far as industrial issues are concerned, and there also has been a steady demand for sound debenture issues, while in the semi-speculative division, particularly base metal stocks, strong markets have ruled. Apart from this, Commonwealth Bonds are weaker, and this movement can, to a great extent, be traced to heavy selling pressure from a large holder of the 5¼ per cents. due 1933 and the 5½ per cents. due 1931, both of which have been depressed until returns of over 5½ per cent. are obtainable from both these stocks. Several issues are available to return a buyer £5/7/6 per cent.

The search for sound tax-free bond investments continues, and instance of this can be found in recent buying of Commonwealth Dollar Bonds in New York, which are tax-free in the hands of an Australian holder. There have been several sales recorded in Metropolitan Water, Sewerage and Drainage Board 5½ per cent. 1944 loan at £99/15/, while the £150,000 South Australian Gas 6½ per cent. 1941 bond issue has been largely overapplied for by shareholders. The City of Sydney is offering a loan of £1,500,000 for sale over the counter at £5/12/6 per cent., repayable in 1950. Applications will be accepted free of exchange in any capital city of the Commonwealth, but interest and principal will be repayable in Sydney only. An attractive public issue just announced is the offering of £500,000 for the State Bank of South Australia through the Commonwealth Bank. The rate of interest is £5/5/ per cent. and the issue price £99. This loan is guaranteed by the South Australian Government, and interest is free of State taxation. The return at the issue price is £5/7/3 per cent., and applications are accepted and interest will be payable and principal repayable free of exchange in any capital city of the Commonwealth.

The rate for municipal loans remains unaltered at £5/17/6 per cent., and one Sydney municipality has reported having arranged a loan through the Commonwealth Bank for £40,000 at this rate. Messrs. J. B. Were and Son, of Melbourne, report having arranged loans of £34,090 for the Ballarat Sewerage Authority and £6500 for the Borough of Daylesford, both at £5/15/ per cent.

The fact that the Commonwealth Government has turned to London for the issue of £5,000,000 of Treasury Bills, it is hoped, will prove a favourable factor as far as Australian financial conditions and share markets are concerned. The Treasury Bills are being issued for twelve months only, but this may mean a temporary filling of the Loan Council's requirements, and may mean that they will keep off the local market for some while yet.

We have recently been between seasons, and there is no steady flow of funds from the sale of primary products overseas coming into the country, thereby creating surplus seeking investment, and, while indications are that the amount of money about is satisfactory, as far as Stock Exchange business is concerned, in all probability a large Commonwealth issue would mop up a big portion of the available funds.

The price trend at the opening of the new season's wool sales has been awaited with considerable interest, for the lower rates ruling recently for our wool would mean a big reduction in national income compared with last year. The price of wheat, however, continues satisfactory, and world statistics indicate some shortage for the coming season's crop. This should benefit prices and, consequently, the amount of money coming into Australia. Authorities appear to agree that no pronounced further fall in the price of wool can be expected, but are chary about any forecast of a possible rise.

Another development having a favourable bearing upon Australia's position has been the more cheerful tone of overseas markets. At present interest rates in London are on the high side, and a fair amount of Australian funds have been going overseas for investment there, although the high exchange rate checks this to some extent. With lower interest rates and the opening of the wool sales, thereby raising credits in London, more money may become available for investment in Australia. The issue of Treasury Bills by the Commonwealth should also be a means of raising large credits in London, and this possibly may have a favourable bearing upon bank exchange rates between here and England.

"True, 'My business is different.' But our customers are alike. Your consumer and mine is the same man. He will make similar demands of every dealer."

BERLEI LIMITED PLANNING TO MANUFACTURE IN ENGLAND.

In making the announcement that Berlei Ltd. have decided to establish operations for the manufacturing and marketing of their line in England, the managing director, Mr. Fred. R. Burley, stated that they feel that they are able, and have positive proof from people who are in a position to give complete and sound judgment, that their contribution of a new and distinct idea of modern corset service would find a ready market outside Australia.

Many years of diligent work on the part of many people have gone to make the product one that would bring honour to the term "Australian made," and that such work has been sound and bears the hallmark of scientific exactitude is proved by the results of the anthropometrical survey, which, it will be remembered, was controlled and organised by Prof. Chapman and Dr. S. A. Smith, of the Sydney University.

This survey was financed by Berlei Ltd., and carried out over all Australia, when twenty-two measurements of 7000 women were taken and experimented with over a period of two years, until the fact was established that there were five types and their size, weight and age developments ran in established and clear channels, which could be, and were being, interpreted into individual garments and classes of garments.

Then came just this last year the final and greatest evolution of all this scientific work and data, in the crystallised form of the Berlei type indicator, which as a common denominator for resolving into terms of types and even weights of figures, has left in the minds of all who have seen it worked a sense of amazement at its simplicity and usefulness.

Equipped as Berlei Ltd. are to make foundation garments of integrity and anatomical responsibility, and having conducted two separate surveys of the British market, and feeling satisfied that the demand is there, they have decided to go to the centre of the Empire to obtain greater distribution and a closer contact with the style world.

Some of their expert staff have already left to complete arrangements for production, and their chief designer (Miss Mary Craven), accompanied by the company's organising secretary (Miss Ida Charlier), who, by the way, compiled the data of one of the English surveys, will leave in October to start investigations, experimentations, and organisation. They will be followed shortly by the managing director (Mr. Fred. R. Burley), who will complete the arrangements already started for the flotation of the British company.

The fact that London is not only the heart of the Empire, but that it is the ideal style centre to operate in. and from which to establish constant contact with two other great centres—Paris and New York—and as style has become such an important part of any service to be offered to women of to-day, the operation of the British company under the management of Berlei Ltd.'s chief designer, Miss Mary Craven, will, they hope, mean that a greater service still will be rendered to the Australian market.

Berlei Ltd.

A Success Founded on Co-operation

(Specially Contributed to this Journal)

Co-operation is the keynote of progress; it is the secret of success, in peace as in war, in business as in sport. It is not too much to say that it is the very life of civilisation; that civilisation is, in effect, the expression of the principle of co-operation, and that the measure of any form of civilisation is the degree of co-operation which exists, not only between men as individuals, but also between communities and between nations. Probably the earliest form in which it was practised was the banding together of prehistoric man into groups formed primarily for protection. Later, we can imagine the principle applied to hunting and extended to pastoral and agricultural operations. Still later came the development of simple forms of industry, leading gradually to a recognised division of labour, and, in the course of time, to the wider expression of the idea, in trade between communities and nations. To-day, the whole social and industrial fabric rests upon the principle of co-operation; the measure of our economic and social progress, both now and in the future, is the degree to which the principle is applied and to which its application may be extended.

The measure also of the true success of any business or industry is the extent to which co-operation enters into its operations, not only as between capital and labour, and between the individual workers themselves, but also as between the business and its clients. A realisation of the interdependence of individuals, by the individuals themselves, is essential to that continuity and co-ordination of effort which is the true road of progress. Gradually, it seems, that truth is being realised and the success of industries in which the principle of co-operation has been whole-heartedly applied has been notable.

An outstanding example of the successful application of the idea is the remarkable development of Berlei Ltd., makers of corsets and brassieres, within the last twenty years, and more particularly within the last decade.

The business had its beginnings in 1910, when Mr. Fred R. Burley purchased an interest in a retail corset-to-order store in Market street, Sydney; and not long afterwards Mr. Burley decided to devote his whole time to the enterprise, in which he was joined by relations, who purchased the remaining shares in the business. Gradual expansion took place, and in 1912 Mr. F. Arthur Burley, now manager and secretary, joined his brother. Unique Corsets Ltd., with an authorised capital of £10,000, was formed.

With a clear realisation that success depended on rendering the greatest possible service to customers, Mr. Fred Burley journeyed in 1913 to Europe and America, to obtain information as to the latest methods and the most suitable machines and materials. This search for the most modern developments in other countries has been continued since by means of visits abroad by various members of the organisation, but the company has not been dependent on others. Information so obtained has been correlated with the results of exhaustive investigations inititated by the company in Australia, of which more later.

Expansion continued, and in 1917 operations were transferred to Commerce Buildings, in Liverpool street, with a staff of sixty. In 1918 the staff numbered 200 and capital was increased to £50,000. In the following year the name of the company was changed to Berlei Ltd.

Up to that time the greatest attention had been centred on the manufacture of brassieres and the development of the market for that line, which was then little known. The manufacture of corsets had not been neglected, but it had been found that it was practically impossible to compete with the imported corset, on which the customs duty was only 10 per cent., whereas on some of the raw materials used in the manufacture the tariff was as high as 40 per cent. In the hope that additional protection might be granted, the company took steps to prepare for the development of the industry, and Mr. Fred Burley undertook a further visit to America and Europe to inspect the most modern factories and purchase the most up-to-date plant.

Land for a factory was acquired. In 1920 a tariff protecting the Australian manufacture of corsets was introduced, and the company took over the corset manufacturing business of Zander and Co. The staff then numbered 280.

Shortly afterwards the company was reconstructed, with a capital of £250,000 in 200,000 ordinary and 50,000 8 per cent. cumulative preference shares. The new building, Berlei House, in Regent street, was occupied early in 1922. Within twelve months the daily output was more than 1000 garments, and the workers totalled 500.

In pursuance of the policy of co-operation which, expressed or unexpressed, was the constant thought of the management, Berlei House was designed to give the greatest possible comfort and the most healthful conditions for the staff. A concrete building of six floors and a basement, the house is built on the daylight principle and embodies the most modern ideas in lighting, ventilation and general design. A cafeteria and dining room are situated on the first floor, where there is also a rest room under the care of a matron, and the company's medical superintendent attends members of the staff without charge. A library of good fiction is also provided.

Co-operation with customers has also been given the maximum of attention. It was realised early that, to render the best service, close and detailed study of Australian requirements was essential. In 1922 Dr. Grace Boelke became a permanent member of the staff, ensuring the anatomical correctness of all designs. In 1926 Dr. Margaret Harper succeeded Dr. Grace Boelke,

(Continued on page 446.)

Selecting Colour in Clothes that Will Improve the Wearer's Appearance

A Guide to Colours Suitable for Different Types.

Colour is of immense importance in men's dress. Properly used, it can improve the appearance of the wearer by emphasising his pleasing facial and bodily characteristics and by minimising facial and bodily imperfections; improperly used, it can ruin his appearance by diminishing the pleasing and exaggerating the imperfect characteristics. Whoever sells clothes should be able to advise customers of what colours they should wear. Customers will appreciate the advice, and by selling clothes by selling colour the outfitter and his assistants will quicken turnover.

The following notes have been compiled as an outfitter's guide to the selection of colours suitable to all types of men. They summarise the most important points to be remembered.

Colours should be selected, not for the single purpose of making a pleasing ensemble, but to improve the wearer's appearance and emphasise his physical individuality. They should not be used as an attempt to alter individuality. The man with dark hair can, if he wishes to, make his hair appear less dark than it really is by means of certain colours, but to do this is inadvisable; it will tend to give him the appearance of a nonentity. Actual imperfections are the only things that should be minimised. Pleasing characteristics should always be emphasised.

The pigmentation of the face consists of yellow, the background, that is, forehead, neck, etc., and of red, the foreground, that is, lips and cheeks. The yellow tones create an unhealthy effect and the red tones a healthy. Therefore, the aim in selecting colours should be those that will reduce the yellow pigmentation to a minimum and bring out the red tones. Colours complementary to yellow will exaggerate the yellow tones and should be avoided in preference for those complementary to red.

The colour of the foreground, however, is not a true red, but is red-orange in darker skins, and red-violet in lighter skins.

Collar, tie, and shirt are the articles of wear nearest to the face and neck, and, therefore, the colour of these will influence the appearance of this part of the body more than the colour of the suit. It must be borne in mind when these articles are chosen for their colours, that only a comparatively small area of them is generally exhibited.

Effects of Colour Twofold.

The effects of colour on the face are twofold. They may reflect colour, and therefore exaggerate either the yellow or the red pigmentation; or by the law of contrast they may heighten one or other of the skin colours, or they may kill it if they are stronger than the colours in the skin. Thus, a red tie may reflect itself on the skin and exaggerate the effect of redness, while killing the yellow; or, in a shade weaker than the red in the face, heighten the colour of the lips and cheeks by providing a foil to the latter, or in a shade stronger than the red in the face, it may overpower and kill the red in lips and cheeks. Similarly, a blue tie in a shade weaker than the shade of blue eyes will increase the blue of the eyes, but one in a shade stronger than that of the eyes will kill the latter.

The relationship between the colours of collar, tie, and shirt and those of the suit must be considered. Light colours in the former articles of wear will neutralise the effect on the face of the colours of the suit.

Besides yellow and red pigmentation in the face, there is the colour of the beard. A dark beard will be exaggerated by dark colours and lightened by light. The man with a dark skin and rough beard should, therefore, wear suits in a darker shade still; suits in a lighter shade will make him look unshaven and badly groomed.

Then there is the hair to be considered. Colours in clothes can help the man with colourless hair, skin, and eyes to achieve distinction in his personal appearance. A richly coloured tie or a dark suit will work wonders with a man of this type.

The man with red-orange pigmentation in the forehead of his face, the dark type, looks best in warm colours; the man with red-violet, the light and the intermediate type, in cool. Orange is the hottest colour, and blue the coldest. Those colours which are allied to orange—red and yellow, for example—are warm, and those allied to blue, such as violet and green, are cool.

These effects of colours provide an index to colour selection. Greens and blues (in the darker shades, including that of the blue serge suit) are complementary to red, both the orange and violet shades, and destroy the yellow pigmentation and heighten the red, as also do light reds, soft wine shades, and blue-greens. The yellow pigmentation is exaggerated by bright blues, by neutral colours, such as light greys and tans (fatal to the man with a sallow complexion). Greys give the skin an appearance of creaminess, as also do very dark blues. A bright blue and very light colours direct attention to blemishes in the face and neck, and are unsuitable to imperfect complexions; they make the skin appear coarse in texture.

(Continued on page 450.)

Tariff Decisions of Interest to the Textile Trade

Through the Courtesy of the Department of Trade and Customs, Canberra.

Machinery, Machines, etc.—Hem preparing machine, 24 in., automatic, and 24 in. automatic hemming benches for use in conjunction therewith, for use in connection with the manufacture of handkerchiefs (By-law No. 562). Tariff item 174, operating 7/6/29 only.

Machinery, Machines, etc.—Needling machines for producing needles in blocks for fitting into cotton combing machines (By-law No. 563). Tariff item 174, operating 23/4/28 only.

Machinery, Machines, etc.—Winding machine, artificial silk, hank to bobbin (By-law No. 570). Tariff item 174, operating 25/3/29 only.

Piece Goods.—Webs, cotton, braided or knitted, defined for cutting, for use in the manufacture of braces, under security (By-law No. 579). Tariff item 404, operating 10/7/29.

Supports.—The reference to supports, collar, etc., for use in the manufacture of apparel, in By-law No. 74 (Consolidated By-laws, page 89), is to be amended by adding "gold plated" to the list of collar supports excepted from admission under tariff item 404 (By-law No. 586). Operating 29/7/29. Note.—Gold plated collar supports are classifiable under tariff item 309(d), vide T.D. '29/749.

Piece Goods.—Whipcord, cotton, weighing more than 6 ounces per square yard, for use in the manufacture of leathercloth and of rubbercloth, under security (By-law No. 584). Tariff item 404, operating 18/2/29 and 2/7/29 only.

Piece Goods.—Blanketing, flannel, in widths of 108 in. and over, for laundry machines, under security (By-law No. 611). Tariff item 415a (2), operating 8/3/29.

Machinery, Machines, etc.—Embossing and stamping machine for embossing designs on textile material (By-law No. 617). Tariff item 174, operating 31/10/28 only.

Machinery, Machines, etc.—Machines for use in connection with the treatment of furred skins, viz., brushing machine, shearing machines and spare parts therefor, teasing machine, unhairing machines and spare parts therefor (By-law No. 626). Tariff item 174, operating 30/11/28 and 2/1/29 only.

Apparel and Attire.—Overalls (not knitted), children's, being one-piece garments not exceeding 22 inches in length; rompers (not knitted), children's, being a two-piece garment not exceeding 22 inches in length. Tariff item 110(d), operating 12/8/29. Note.—T.D. 23/494 is to be cancelled.

Machinery, Machines, etc.—Machines for use in connection with the production of artificial leather, rubberised cloth, cellulose paints, varnishes and lacquers, viz.:—Brushing machine, vertical; calender machine, 4-roll; cutting and winding machine; fitting machine, lever-top; jar mill; leathercloth coating apparatus, hand; leathercloth coating machines; rubber straining machine (By-law No. 641). Tariff item 174, operating 31/1/28, 11/7/28, 23/7/28, 3/9/28, 7/9/28, 11/10/28 and 23/10/28 only.

Chain and Chains.—Chains, excepting those of textile, for use in the manufacture of furs (By-law No. 679). Tariff item 404, operating 19/8/29. Note.—The references to all other, including textile, in Guide, page 54, and to chains for use in the manufacture of furs, in By-law No. 74 (Consolidated By-laws, page 107), are to be cancelled, but any textile chains for use in the manufacture of furs, which are in direct transit to Australia on August 19, 1929, may be admitted under tariff item 404.

Piece Goods.—Waterproofed cloth, prepared with rubber, oil, or celluloid—Artificial silk or containing artificial silk, but not containing wool. Tariff item 105(h) (2), operating 19/8/29.

Samples.—Mounted in covers or otherwise, viz.:—Furnishing and upholstering cloth containing silk or artificial silk, up to 25 inches in length, provided the material be rendered unserviceable commercially by the insertion of V-cuts at intervals of 8 inches in the length and extending across practically the whole width of the material. (Tariff item unspecified, operating 19/8/29). Woollen piece goods, 18 inches in length, provided the length be slit at 9 inches for approximately 9/10ths of the width. (Tariff item unspecified, operating 19/8/29). Note.—In each class of material the full manufactured width of the original pieces is recognised, provided such portions are manifestly samples.

Machinery, Machines, etc.—Ornamentation machine for use in the production of ornamentations for hats by stamping out designs on textile strips (By-law No. 670). Tariff item 174, operating 5/4/28 only.

Machinery, Machines, etc.—Pressing plant, cloth, electrically heated (By-law No. 673). Tariff item 174, operating 6/6/29 only.

Machinery, Machines, etc.—Carding plant, composite, being a battery of synchronised and automatic machines for taking in wool at one end and turning out finished piece goods at the other end (By-law No. 694). Tariff item 415a(1), operating 20/2/29 only.

Apparel and Attire.—Gowns, dressing, knitted, of any material (Tariff item 110d); jackets, dressing, knitted, of any material (Tariff item 110b, 2); jackets, dressing, other than knitted, of any material (Tariff item 110d). Operating 2/9/29. Note.—The reference to jackets, dressing, in Guide, page 10, is to be cancelled.

Piece Goods.—Wick, lamp or candle, cotton, of any length (Tariff item 105(1)a); wick, lamp, being a strip of felt sewn in tubular form round a textile cord, used in semaphore and train lamps (Tariff item 122). Operating 2/9/29. Note.—The reference to wick, lamp or candle, etc., in Guide, page 291, is to be cancelled.

Machinery, Machines, etc.—Cutting machine, glove, automatic, and cutting dies therefor, for use in connection with the production of dress gloves of fine leather (By-law No. 708). Tariff item 174, operating 4/2/29 and 31/5/29 only.

ENKA-GLANZSTOFF FUSION.

In order to eliminate detrimental competition, to increase technical and economic capacity, and to stimulate further the consolidation of the artificial silk market, Dutch Enka and Vereinigte Glanzstoff have contracted an agreement for a community of interest, while preserving their economic and legal independence. Messrs. L. J. Foster and Co. are in receipt of advice from their principals, Messrs. N. V. Nederlandsche Kunstzijdefabriek, to the effect that a formal fusion is impossible, because the two concerns are subject to different laws. Enka has been chosen as the constitutional basis of the new combine, and shareholders in Glanzstoff will be asked to change their holdings into Enka shares. Enka's name will be changed to the "Algemeene Kunstzyde Unie." Dr. Hartogs and Dr. Bluethgen will become joint managers of the new concern.

The future concern will, as a consequence of the unifying of interests of Enka and Glanzstoff, be in possession of an important production capacity, and will control a very extensive field of activity. The production capacity of the concern's own factories will amount to more than 60,000 kg. artificial silk daily; moreover, the concern will have considerable direct influence on several large companies, which are affiliated with the concern, or in which they have controlling interests, or entertain friendly relations with. Amongst these we mention Stapelfaserfabrik Jordan, in Sydowsaue; J. P. Bemberg A.G., with its different branches, viz., Holkenseide G.m.b.H. Seta Bemberg, Gozzano, Italy; Cuprotextile, Rouen, France; American Bemberg Corp., U.S.A.; British Bemberg Ltd., England; Japan Bemberg A.G., Japan; Neue Glanzstoffwerke A.G., Breslau; Glanzfaden A.G., Petersdorf and Elberfeld; Glanzstoff Courtaulds G.m.b. H., Cologne. Furthermore, the Hollandsche Kunstzyde Industrie, Breda, connected with Internationale Viscose Co., Breda, La Soie de Valencienne, Brussels, la Seda de Barcelona, Barcelona, British Breda Silk Ltd., London, etc. Further, the Erste Oesterreichische Glanzstoff-Fabrik A.G. St. Polten, Bohmische Glanzstoff-Fabriken, system Elberfeld, Lobositz; British Enka, Great Britain; Italo Enka, Italy; American Enka Corporation, U.S.A.; American Glanzstoff Corporation, U.S.A.; Associated Rayon Corporation, U.S.A. We must mention further the important holdings of Glanzstoff in Snia Viscose, S.A., the largest Italian artificial silk factory, and Asahi Silk Weaving Company, Japan.

INDIAN COTTON.

"India is handicapped by the fact that cotton production in that country averages about eighty-five pounds per acre," states a report which has just been completed. The average yield per acre in the United States runs about one hundred and fifty-eight pounds. A further and more serious handicap is that the length or staple of India cotton ranges from three-eighths of an inch to five-eighths of an inch. In comparison with American cotton this makes it so inferior that it can be used for making only the coarsest yarns and cloth that can be woven from such coarse yarns.

Suggestions for the Wool Industry

(Continued from page 421.)

attaining this pinnacle lies in the fact that in every division of every industry there are a few men of sufficient breadth of mind and vision who will work toward this broad, definite objective by seeing through the haze of petty, but natural obstacles, which invariably arise to discourage the average business man in an effort of this nature.

Your troubles in this industry at the present time are due to the fact that you did not have the necessity to co-ordinate in the past, and for that reason you could not foresee the trend which has caused the changes that have taken place during the past few years.

But you will be definitely at fault, and in the future seriously penalised, if you attribute every swing for the better to your own individual efforts, and lose sight of the possibility that the general, collective activities may have assisted to make your path toward profits slightly smoother.

For, if every time an improvement is shown, the interest of the industry fags, there is little hope of effecting a permanent and decided improvement for the industry as a whole.

The newer industries are developing an unprecedented record for growth and earnings, due to the fact that they have had the required data from their very inception, and they have learned what to do with that information after it has become available.

Politically and socially, we are as far advanced as any people on earth, but industrially many of us are still living in the feudal age.

When we have come together during the past few months a few have lost sight of the bigness of the ultimate purpose through the fact that 100 per cent. of the industry have not participated, nor did 100 per cent. of those participating work in accordance with the principles advanced.

But there has always been a fine nucleus of the best element in the industry holding firmly together, while a few have lost sight of the broader aspects because petty price-cutting has cooled the little enthusiasm with which you might have been inspired at the beginning.

Every concern in every division of this industry may become competitively invulnerable if you will develop your efficiency, through co-ordinated effort, to the point where novices cannot step in and operate on a lower cost basis merely because of lower initial equipment investments.

Joint Support Needed.

If a representative number of concerns in each division of this industry will appropriate a small percentage of 1 per cent. of their annual sales to be administered by a joint committee representing each division contributing toward the expenses and co-ordinate in the three activities which have been outlined, appointing representative committees to consider these subjects of such vital importance to the industry, the viewpoint of the entire industry may be changed almost instantaneously.

It is altogether probable that within a year or 18 months, at the latest, through reasonable co-ordination of thought and action, membership in the Wool Institute or other similar organisations in other divisions of the wool industry will be synonymous with integrity of purpose and efficiency in the operation of business, which alone will be considered one of your most valuable business assets.

And your progress will be accelerated when profits begin to show, for when the industry as a whole makes substantial profits, inefficient concerns that are not making money, which at the present time console themselves with the fact that they are in a class with many others in the industry, will lose heart and discontinue, leaving a wider field for expansion open to you.

Dignity of Industry Must be Restored.

And I may leave with you one closing thought: It is difficult to derive any great inspiration or happiness from business when conditions are as they have been for so many during the past two or three years in this industry, and there is little chance for romance in playing a losing game, but now that the bottom has been reached and passed, the dignity of the industry must be restored if we are to hope to place the industry on its high plane in contrast to the price-cutting, gypping warfare which has been carried on for two or three years.

If these co-ordinating and administrative committees for each division of the wool industry are appointed it is possible that we shall be able to reconcile our conflicting viewpoints, and not be quite as intolerant of each other as we are now and as we always have been.

For it is not difficult to see how the position of the driver of the automobile and the man crossing the street distorts their viewpoints toward each other.

Buyers and sellers are subject to this same distortion, which can only be modified through a common understanding and the general acceptance by the entire industry of a broader and bigger objective than that which now prevails.

Berlei Ltd.

(Continued from page 442.)

but the company went further and established a research department, and, under the direction of Professor Chapman, of Sydney University, and Dr. S. A. Smith, an anthropometrical survey of Australian women was undertaken. Measurements of more than 6000 women were taken, and by this means all possible requirements of Australian women were ascertained. It was found that women could be classified into a considerable number of groups, whose members were closely similar in size and shape, and manufacture was accordingly based on the data obtained. The company is fully conscious of the part which it can and does take in the maintenance of the health and happiness of Australian womankind, and, always directed to that end, research and adjustment are continuously in progress.

"The type of salesman who could efficiently handle a large number of unrelated lines has passed out of the picture, and in his place has come the specialty salesman. To-day the salesman must keep in constant personal touch with his customers, no matter where located, and study not only what he wishes to sell them, but what they want to buy. We must cease being order takers and become order getters."—President Lincoln Baylies.

AGFA SILKS AND FABRICS.

(Specially Contributed.)

It will not have escaped the notice of a competent observer that certain textile materials which seem to be destined for a particular purpose, are suddenly ousted by fashion and supplemented by others. Only the position of silk was for thousands of years considered unassailable as a superior product reserved for the noble of this world. It was only placed within the reach of the broad masses of the people when it was cheapened by chemical means and placed on the market in the shape of weighted silk, which accounts for 90 per cent. of all silk sold at present. By weighting silk with chemicals by approximately 50 per cent. the quality has, however, suffered considerably.

It was therefore an easy matter for artificial silk to break the predominance of this cheapened silk, as in contradistinction to the heavily weighted silk it is free from injurious materials and, moreover, unaffected by perspiration. Apart from that, artificial silk is considerably cheaper.

These advantages have been readily recognised by manufacturers of artificial silk goods and by the creators of fashions. The rate at which the "new textile" is making progress is illustrated by the following comparative figures:—

	World Production of Silk. Kg.	Artificial Silk. Kg.
1924	31,000,000	64,000,000
1925	39,000,000	79,000,000
1926	42,000,000	100,000,000
1927	37,000,000	110,000,000

Artificial silk is principally used by itself for the production of knitted goods, but it is also largely employed in combination with other textile raw materials. Only by working up artificial silk together with cotton has it become possible to improve upon the appearance of cotton fabrics and to produce special effects in silk goods.

The I.G. Farbenindustrie Aktiengesellschaft, which owns four different works for the manufacture of artificial silk, is marketing its productions under the designation "Agfa," the name "Agfa" being already famous the world over through Agfa photo. materials. Agfa artificial silk has a single filament of about 5 deniers, Agfa artificial silk fine a single filament of about 2 deniers, and Agfa Travis a single filament of 1 denier.

Agfa Travis, with a single filament of 1 denier, represents the finest of all viscose silks; it is even finer than natural silk with a single filament of 1.5 denier. For this reason the highest results can be obtained in the weaving industry with Agfa Travis artificial silk. Hosiery goods of a great variety, which cannot be surpassed in respect of feel, suppleness and elegance, are produced with this select material.

Such effective knitted or woven fabrics are in use by everybody in a great variety of garments, also for sports wear, as such articles are easy to wash, and after ironing look just as attractive as before.

Troubles Common to Every Dyer

By Daniel McGowan.*

In speaking on the troubles encountered in the dyehouse, we have unquestionably a very wide field, but in the remedies for these troubles we are, of necessity, limited, as troubles are general, while the remedy is often specific. Undoubtedly most of those present have encountered many varieties of trouble, oftentimes trivial, but many times of a serious nature. Troubles due to carelessness, of course, need no discussion. This is the individual dyer's hardship, and upon him alone rests the remedy.

It is almost impossible to generalise dyehouse troubles, each branch of the dyeing industry encountering troubles peculiar to that particular type of dyeing.

Hosiery dyeing, being probably the most widely distributed branch at the present time, is worth first consideration. This branch, too, probably encounters more differential troubles than all other dyehouses put together.

Matching Shades.

At this time, in this particular territory (Philadelphia and vicinity), hosiery composed of cotton and silk is in the majority. Of first importance is the correct matching of the shade desired, first on the silk, then to obtain a solid result by bringing the cotton to proper shade. We assume, of course, that the dyer uses every effort to obtain a correct match, sampling carefully after the goods have been washed, and using the necessary finish materials. Having passed the lot as being a match within the limits of reasonable possibilities, he is very much upset to have it returned to him as being off shade, and immediately swears vengeance on everyone in the mill in general and the poor pressroom foreman or examiner in particular, but is surprised, on taking the matter up with them, to find the shade does not match—in fact, in many cases has but little resemblance to the sample submitted. He has matched his shade in his north or east light, whatever the case may be, and after finishing the goods are examined in an entirely different part of the building, or another building in a different locality. This is probably the most common and easily remedied trouble of the hosiery dyer. The dyer has at his command to-day such a wide range of dyestuffs that it is possible for him to produce a colour giving any desired change in artificial light. His first move, therefore, in starting to match a new shade should be to study the relative change in natural and artificial light. If he will do this, and match his shade accordingly, so that it matches the submitted sample in both natural and artificial light, he need have no fear of its being examined under different conditions than those in which he passes it. He has used the two extremes, and in-betweens will not effect a sufficient discrepancy of shade to cause it to be condemned.

Probably the next most ordinary trouble is friction streaks and fuzzing. Here, again, an application of good common sense is the real remedy. How many of you stop to think of the terrible licking a silk hose takes in the dyeing process? No other animal fibre can compare with it in its resistance to severe treatment. Nature has given to the silk fibre itself a protective coating; the silk throwster goes further and adds oil to protect and lubricate it in the handling and in the dyeing and knitting operations; but to bring out the beauty of the fibre this oil and gum must be removed. After this is done, we have a delicate material, composed of very fine filaments and easily scarred and broken.

*Of the National Aniline and Chemical Company. Address delivered recently before the Philadelphia Section, American Association of Textile Chemists and Colorists. Reported by the "Canadian Textile Journal."

Dyeing Methods.

This brings us to the dyeing method itself: First, the method which has achieved considerable importance during the past few years of degumming and dyeing in the one operation. If I am conceded the fact that the silk is quite durable and not easily scarred so long as some of the gum remains in it, then you might be real charitable and agree with me that it should be the dyer's aim to take the gum from the hose as slowly as possible, commensurate, of course, with the length of time it is taking to produce his shades. A certain length of time must be given to allow the colours used to penetrate the seams and level up on the cotton portions of the hose. If you know your lot must be boiled from forty minutes to an hour, is it not rather foolish to put in sufficient degumming material to remove the gum entirely from the silk in fifteen or twenty minutes? To do so merely exposes the silk, minus its protective coating, to the harsh action of the boiling bath containing an alkaline substance. It is easy to regulate this either through experiments in the laboratory or by careful watching the dyeing operation.

When the goods are first degummed, then dyed, it is not so easy to regulate, and here the dyer is forced to depend on his ability to obtain satisfactory matches as quickly as possible. Prepare your formulae carefully, either by comparison with previously dyed shades of similar character or, if none of these be available, by preliminary laboratory work, and many headaches due to seeing your samples come in more fuzzed with each addition will be saved. No dyehouse is so small that it cannot afford a laboratory of some sort, and to my mind it is just as essential to have one as to have scales.

Of another hosiery dyehouse trouble—spots—volumes could be written, and it would still not be thoroughly covered. Streaks, dye spots, oil spots and mildew or mould all have their own little niche in the dyer's trouble box. They are the specific troubles which it would be foolhardy to try and treat generally. Each kind of spot must be carefully analysed and an attempt made to trace it to its source. This is not always easy, but can invariably be done if conscientiously gone after.

One other slight trouble encountered in the silk hosiery dyehouse is that caused by tinted silks boiling out into other fibres, but I think I can tell you, without any breach of confidence, that the silk throwsters of the country are expending considerable money and effort in an attempt to standardise these methods and guarantee to the hosiery manufacturer and dyer that the tinted silks will boil out clear and leave unstained any other fibre contained in the material.

Temperature Control versus Finger Dipping.

Of the other classes of hosiery dyeing, mixed fibres probably rank highest at the present time. It would be

very hard to generalise on this subject, owing to the extremely varied combinations used, but one particular point cannot be too strongly emphasised, that of temperature control. When a formula is prepared in a laboratory and reads "dye at 180 degrees," it means just that—not "about 180 degrees," but as near 180 as it is practically possible to dye it. No man can tell when the bath is 180 degrees by dipping his finger in it. He gets burned twice—his finger and his results. Temperature plays an important part in the development of the colour on the fibre. Some colours will give at least twice the depth at 180 degrees that they will at 160 degrees. It is so easy to be positive regarding the temperature. "Old Man Fahrenheit" will take care of the job very nicely for us, and much more accurately and comfortably than our finger. When the laboratory, either your own or an outside one, turns out something good for you, give them a break and follow the dyeing instructions as clearly as possible.

We might cite in this instance hosiery composed of cotton, viscose rayon and acetate rayon. We have here three entirely different fibres; true, the cotton and viscose are dyed by the same type of colours, but to a greatly different degree as to depth of shade. The acetate rayon, of course, requires an entirely separate and different type of dyestuff. The formulae from the laboratory will specify a definite temperature at which the dyeing operation should be carried out. That temperature is necessary to develop the colour, both on the acetate rayon and the rayon and cotton. A lower temperature will produce a lighter and possibly quite different character of shade; a higher temperature is very harmful to the acetate rayon. This is true also where only cotton and viscose are used. At some definite temperature a certain combination of colours will produce the most solid results on the two fibres, and when the laboratory works this out the dyer should follow it, and he will save himself a great deal of trouble.

Shrinking in Wool Hose.

In wool hosiery dyeing probably the most common trouble is shrinking of the goods. This can be largely overcome by making sure, after the scour bath, that the material is washed absolutely clean of all soap or alkali before going into the dye bath to be boiled, as the smallest amount of soap or soda in this hot dye bath will cause the hose to shrink considerably, so we cannot really class that as a dyeing trouble, but one of scouring.

Wool hose containing silk or rayon effects are at times a source of considerable trouble, especially when they are dyed with chrome colours, as in blacks and blues, in so far as keeping the silk clear is concerned. This is, in most cases, due to the varying relation of volume of water in the dye bath to the amount of material being dyed. It is almost essential to keep a normal relation in the bath, as when the bath is very long in proportion it is almost impossible to get the silk effects to clear up. Adding extra chrome and acid to compensate for the long liquor does very little good, and usually results in bringing the shade out thin and greyish, particularly in blacks.

Selecting Colour in Clothes that Will Improve the Wearer's Appearance

(Continued from page 443.)

Bright shades increase the effect of size, and men of greater avoirdupois than they desire should wear dark colours, which exert a slimming effect, whereas the man who is too thin can make himself look larger than he really is by wearing a light suit and overcoat.

Who Should Wear What.

Here are lists of the colours that will be found suitable for wear by different types of men:—

Skin dark, hair dark, eyes dark—Colours to wear are dark blues, reds, greens, browns; colours to avoid are light reds, oranges, and purples.

Hair indefinite, eyes indefinite, skin medium—Should wear dark brown, grey, grey tan, dull blue, blue-green, white, black in combination with colour, dark red, honey; should avoid purple, dark grey, unrelieved black, and all other sombre colours.

Hair light, skin fair, eyes light—Should wear medium and dark shades of blue, green, and red in medium shades, dark brown, blue-grey, cream; should avoid purples, pastel shades, overbright colours, dead white, and sombre shades.

Hair red, skin pale, eyes pale—Should wear black, dark blue, green (medium and dark), cool browns, ivory, blue-green, grey; should avoid red, orange, yellow-green, rich browns.

It must be borne in mind that artificial light affects colours. Under a yellow lamplight, which is the colour of light a man is most likely to appear under, purples and violets tend to become muddy brown in appearance, dark blues to become black, black to become rusty, orange and yellow to become more golden, blue to become green, and green yellow.—"Men's Wear Organiser."

AMERICAN HOSIERY MANUFACTURER'S SALES POLICY.

An official of a well-known women's hosiery manufacturing concern in the United States, which supplies branded and nationally-advertised hosiery direct to the retailer, recently gave some details of the sales policy of his firm, which he describes as being like an insurance policy for the retailer.

This manufacturer's sales policy is based on a recognition of the fact that it is an absolute necessity for retail stocks to be always complete in order that the public can get exactly what it requires at the very moment it wants it. No business then passes the retailer because he is temporarily short of the style, size, or colour asked for.

This policy has also been so developed as to make it possible for the retailer to turn over his stock at a rate considerably above the average, while still keeping it complete. This has been accomplished by:—

(1)—Requesting the retailer to order frequently, and, in the sale of big shops, even daily.

(2)—By freely offering exchange facilities and allowing retailers to exchange slow-moving styles and colours for goods more readily saleable.

(3)—By the ability to despatch all orders within 24 hours of their receipt.

At first sight such a system seems unfair to the manufacturers. In practice, however, it has been found that under it business has been more successful, and has indeed increased rapidly since a "hand-to-mouth" buying policy was encouraged among retailers; more profits are made than in former days, when large orders at infrequent intervals were the rule.

It is important for the manufacturers to know what is being readily accepted by the public. Where large orders are placed months in advance it is only the buyer who is lucky in his forecasts who is likely to hit upon what will really please the public. To manufacture from day to day to meet existing tastes of the public is a great advantage to the manufacturer, for he runs no risk of accumulating stocks that will not "catch on."

This firm of manufacturers has an arrangement with about 100 large stores throughout the United States, which send in daily on a specially provided report sheet particulars of what the sales for each day have been. An analysis of the information thus provided gives a certain indication of what its 14,000 retail customers are selling. The question of colour is one of the most important factors in the business, and these daily reports prove particularly valuable in this respect.

Instead of new colours being issued twice a year or so, a fresh one is supplied to retailers every month, so that they are able to make a feature of offering the public the "colour of the month." The retailer is thus able to keep right up to the minute as regards styles. The reasons why the big retailers co-operate heartily with the manufacturers by sending the daily reports referred to is that it pays them to do so, because an immediate daily replacement of goods sold is despatched from the mill.

The result of this policy, from the retailers' standpoint, is that, while the rate of hosiery stock turnover averages from four to six times per annum with ordinary methods of doing business, it becomes much more rapid with the method outlined. One of the firm's customers is averaging a stock turn of twenty. He is able to sell £100,000 worth of hosiery on a stock of £5000. He is thus operating on the manufacturers' capital instead of his own, as he gets a credit of 30 days, and the goods are all sold before he has to pay for them.

The manufacturers produce full lines as far as style is concerned and supply retailers with as many as forty shades and colours. Size ranges run from 8 up to 12 as a special service.

The manufacturers' own policy for their business is to keep complete stocks at all times, while emphasising the fact that complete stocks do not necessarily mean large ones.—"Hosiery Trade Journal."

NEW FIBRE DEVELOPMENT.

The unusual activity of the past eighteen months in new fibre development cannot be said to have been without useful result, but if these fibres have come to stay, their role, it would seem, will be as auxiliaries to the older members of the vegetable family. Sufficient time has not yet elapsed to make it possible to judge of the behaviour of the finished materials in practice.—Dr. W. Hubball.

STATISTICS

IMPORTS.

Article.	June.		Period.		Year.	
CLASS VIII.—(a) Apparel and attire; (b) textiles; (c) manufactured fibres.	1928.	1929.		1927-28.		1928-29.
(a) Apparel and attire.	£	£		£		£
Blouses, skirts, costumes, etc. (other than knitted)	27,483	27,616		405,247		381,406
Boots and shoes	21,794	20,764		488,029		487,078
Furs and other skins wholly or partly made up and dressed or prepared	39,667	15,930		739,748		453,215
Gloves	36,791	37,226		505,512		516,799
Hats and caps	59,209	114,354		952,126		981,019
Knitted articles of apparel—						
Blouses, skirts, jumpers, underwear, etc.	6,928	9,122		171,205		166,642
Socks and stockings	62,786	63,673		1,348,950		1,150,416
Men's and boys' outer garments	3,963	4,866		178,282		144,695
Shirts, collars, ties, etc.	2,213	5,293		49,335		46,243
Trimmings and ornaments	76,933	82,829		917,323		868,732
Other apparel and attire	47,154	53,532		750,420		707,409
(b) Textiles.						
Carpets, linoleums and other floor coverings	174,604	200,266		2,709,056		2,509,330
Handkerchiefs and serviettes of cotton or linen	32,888	36,484		399,897		380,364
Piece goods—						
Canvas and duck	50,831	66,133		711,209		689,899
Cotton and linen	588,005	697,159		8,593,908		7,571,121
Hessian and other jute piece goods	51,623	59,025		686,158		682,107
Lace for attire, etc.	64,259	55,186		436,784		467,301
Silk or containing silk	429,790	615,772		5,963,339		6,534,134
Velvets, velveteens, plushes, etc.	17,386	39,445		450,698		630,556
Woollens	89,293	67,033		2,525,179		1,491,128
Other	88,091	104,291		1,335,424		1,237,122
Quilts, tablecovers, sheets, etc.	11,963	20,598		372,627		306,633
Sewing and other cottons, threads, etc.	53,565	58,077		916,949		785,550
Towels and towelling	34,631	32,257		560,919		443,912
Other textiles	51,898	49,979		748,848		713,161
(c) Yarns and manufactured fibres.						
Bags and sacks—						
Bran, chaff and compressed fodder	37,236	17,011		444,331		394,414
Corn and flour	62,434	60,418		2,365,723		3,103,924
Woolpacks	139,640	92,398		731,419		533,400
Other	5,302	1,541		98,875		67,486
Cordage and twines, ex. metal cordage	14,608	15,860		252,758		188,574
Yarns—						
Artificial silk	56,540	46,187		577,117		785,960
Cotton	73,575	77,356		672,496		858,719
Wool	19,592	22,519		315,157		283,892
Other	17,977	13,940		113,443		141,266
Total, Class VIII.	2,551,112	2,875,140		38,488,491		36,703,587

EXPORTS.

CLASS VIII.—(a) Apparel and attire; (b) textiles; (c) manufactured fibres.						
Boots and shoes	1,079	1,459		20,004		18,273
Other apparel and attire	10,294	20,642		156,380		155,636
Piece goods	11,725	14,068		195,027		173,402
Other textile	7,204	6,483		48,090		63,888
Manufactured fibres, inc. bags, cordage and yarns	11,587	8,492		130,088		119,642
Total, Class VIII.	41,889	51,144		549,589		530,841

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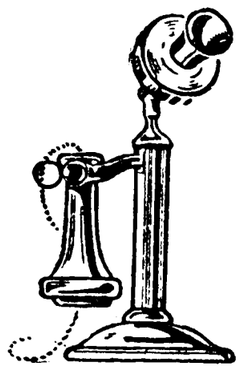

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Brown, J. C., and Co. Pty. Ltd.
British Engineering Pty. Ltd.
Davies, Simpson and Kirwood Pty. Ltd.
Dyson, J., and Sons Pty. Ltd.
Hall Bros. and Co.
Lee, Frank, and Co. Pty. Ltd.
Stamp, John W.
Wood, J , A.M.I Mech.E.
York, Henry H., and Co. Pty. Ltd.

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Lawrence, William (Globe Dye Works), Pty. Ltd.
Textile Dyers and Bleachers Ltd.

FLANNELS.
Challenge Woollen Mills.
Collins Bros. Pty. Ltd.
Cooerwull Woollen Mills.
Hirst, Godfrey, and Co. Pty. Ltd.
Lincoln Spinning Mills Pty. Ltd.
R.S. and S Woollen and Worsted Co-op. Mfg. Co.

FULLING MACHINES.
Brown, J. C , and Co. Pty. Ltd.
Lee, Frank, and Co. Pty. Ltd

GRINDING MACHINERY.
Wood, J., A.M.I.Mech.E.

HAWKING MACHINES.
Dyson, J., and Sons Pty. Ltd.

HOSIERY (Cashmere).
Lustre Hosiery Co.

HOSIERY (Plain).
Lustre Hosiery Co.

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Lee, Frank, and Co. Pty. Ltd.
Wood, J., A.M.I.Mech.E.

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Brown, J. C., and Co. Pty. Ltd.
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JERSEY CLOTH.
Thyne Bros. Pty. Ltd.

KNITTED OUTERWEAR.
Thyne Bros. Pty. Ltd.

KNITTING MACHINE NEEDLES.
Foster, L. J., and Co.
Lee, Frank, and Co. Pty. Ltd.
Vance and McKee.

KNITTING MACHINERY.
Berridge, I. L., and Co. Ltd.
Davies, Simpson and Kirwood Pty. Ltd.
Floyd, J. A.
Foster, L. J., and Co.
Hilscher, G.
Jackson and Co., Wm. C.
Lee, Frank, and Co. Pty. Ltd.
Patkin, A.
Schubert and Salzer.
Stibbe, G.
Terot Knitting Machine (A/asia) Pty. Ltd.
Vance and McKee.

KNITTING SUNDRIES.
Davies, Simpson and Kirwood Pty. Ltd.
Foster, L. J., and Co.
Floyd, J. A.
Grob and Co. Ltd.
Hilscher, G.
Lee, Frank, and Co. Pty. Ltd.
Livesey and Crowther Ltd.
Schubert and Salzer.
Stibbe, G.
Vance and McKee.

LOOMS.
British Engineering Pty. Ltd.
Butterworth and Dickinson Ltd.
Lee, Frank, and Co. Pty. Ltd.
Wood, J.
York, Henry H., and Co. Ltd.

LOOMS (Rashel).
Lee, Frank, and Co. Pty. Ltd.

LUBRICATION (Silk and Artificial Silk).
Lee and Co. Pty. Ltd., Frank.
York and Co. Pty. Ltd., H. H.

MACHINISTS.
Brown, J. C., and Co. Pty. Ltd.
Davies, Simpson and Kirwood Pty. Ltd.
Dyson, J., and Sons Pty. Ltd.
Floyd, J. A.
Hall Bros. and Co.

MILL FURNISHINGS.
British Engineering Pty. Ltd.
Brown, J. C., and Co. Pty. Ltd
Davies, Simpson and Kirwood Pty. Ltd.
Dyson, J., and Sons Pty. Ltd.
Floyd, J. A.
Grob and Co. Ltd.
Hardie Trading Pty. Ltd.
Hilscher, G.
Hussong Dyeing Machine Co.
Lee, Frank, and Co. Pty. Ltd.
Livesey and Crowther Ltd.
Scharer-Nussbaumer and Co.
Wood, J., A.M.I.Mech.E.
York, Henry H., and Co. Ltd.

MILLING (Piece).
Davies, Simpson and Kirwood Pty. Ltd.
Dyson, J., and Sons Pty. Ltd.

MILLWRIGHTS.
Dyson, J., and Sons Pty. Ltd.
Hall Bros. and Co.

NOILS.

Godfrey, S., Ltd.
Lincoln Spinning Mills Pty. Ltd.
Port Phillip and Mills Pty. Ltd.
Valley Worsted Mills Pty. Ltd.

OILS (Lubricating).

Vacuum Oil Co. Pty. Ltd.

OILS (Olive).

York, Henry H., and Co. Ltd.

OILS (Wool Batching).

York, Henry H., and Co. Ltd.

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R.S. and S. Woollen and Worsted Co-op. Mfg. Co.
Valley Worsted Mills Pty. Ltd.

PATTERN MAKERS.

Brown, J. C., and Co. Pty. Ltd.
Dyson, J., and Sons Pty. Ltd.
Stamp, John W.

PULLEYS.

Dyson, J., and Sons Pty. Ltd.

PULLOVERS.

Thyne Bros Pty. Ltd.

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Albion Woollen Mills (The).
Cooerwull Woollen Mills.
Hirst, Godfrey, and Co. Pty. Ltd.
Lincoln Spinning Mills Pty. Ltd.
R.S. and S. Woollen and Worsted Co-op. Mfg. Co.
Vicars, John, and Co. Ltd.

SCOURERS.

Textile Dyers and Bleachers Ltd.

SCOURING BOWLS.

Brown, J. C., and Co. Pty. Ltd.

SCOURING MACHINES.

Davies, Simpson and Kirwood Pty. Ltd.
Dyson, J., and Sons Pty. Ltd.
Hall Bros. and Co.
Lee, Frank, and Co. Pty. Ltd.
Stamp, John W.

SCOURING AND MILLING MACHINES (Combined).

Davies, Simpson and Kirwood Pty. Ltd.
Dyson, J., and Sons Pty. Ltd.
Stamp, John W.

SERGES.

Collins Bros. Pty. Ltd.
Globe Worsted Mills Ltd.
The Australian Woollen Mills Ltd.
Yarra Falls Ltd.

SERVICE BUREAU.

"Textile Journal of Australia."

SHAWLS (Infant).

Auswool Shawls Pty. Ltd.

SILK AND ARTIFICIAL SILK LUBRICATION.

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Sterling Soap Pty. Ltd.
York, Henry H., and Co. Ltd.

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Dyer and Phillips Pty. Ltd.
Lee, Frank, and Co. Pty. Ltd.
Wood, J., A.M.I.Mech.E.
York, Henry H., and Co. Ltd.

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Were, J. B., and Son.

SQUEEZING MACHINES (Piece).

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Lee, Frank, and Co. Pty. Ltd.
Dyson, J., and Sons Pty. Ltd.

SUITINGS.

R.S. and S. Woollen and Worsted Co-op. Mfg. Co.
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Vicars, John, and Co. Ltd.

TAPES (Knitting).

Foster, L. J., and Co.
Vance and McKee.

TEXTILE MACHINERY.

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Brown, J. C., and Co. Pty. Ltd.
Butterworth and Dickinson Ltd.
Coulston and Co.
Davies, Simpson and Kirwood Pty. Ltd.
Dyson, J., and Sons Pty. Ltd.
Floyd, J. A.
Foster, L. J., and Co.
Hall Bros. and Co.
Hilscher, G.
Howard and Bullough Ltd.
Hussong Dyeing Machine Co.
Jackson and Co., Wm. C.
Lee, Frank, and Co. Pty. Ltd.
Patkin, A.
Schweiter Ltd.
Stamp, John, W.
Terrot Knitting Machines (A/asia) Pty. Ltd.
Vance and McKee.
Wood, J., A.M.I.Mech.E.
York, Henry H., and Co. Ltd.

TEXTILE PUBLICATIONS OVERSEAS.

Canadian Textile Journal.
Deutsche Farber-Zeitung.
Textil Lloyd.
Textile Colorist.
Textile Mercury.

TUBES.

Lee and Co. Pty. Ltd., Frank.

TWEEDS.

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Cooerwull Woollen Mills.
Hirst, Godfrey, and Co. Pty. Ltd.
R.S. and S. Woollen and Worsted Co-op. Mfg. Co.
Tweedside Manufacturing Co. Pty. Ltd.

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Lee, Frank, and Co. Pty. Ltd.
Paton and Baldwin (Aust.) Ltd.
Vance and McKee.

VATS (Indigo).

Dyson, J., and Sons Pty. Ltd.

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Collins Bros. Pty. Ltd.
Hirst, Godfrey, and Co. Pty. Ltd.
R.S. and S. Woollen and Worsted Co-op. Mfg. Co.

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Patons and Baldwins Ltd.

WARP LOOMS.

Lee and Co. Pty. Ltd., Frank.

WARPING MILLS.

Davies, Simpson and Kirwood Pty. Ltd.
Dyson, J., and Sons Pty. Ltd.
Lee, Frank, and Co. Pty. Ltd.

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Brown, J. C., and Co. Pty. Ltd.
Lee, Frank, and Co. Pty. Ltd.

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United Water Softeners Ltd.
Wood, J., A.M.I.Mech.E.

WINDERS (Silk, Cotton and Worsted).

Brown, J. C., and Co. Pty. Ltd.
Davies, Simpson and Kirwood Pty. Ltd.
Floyd, J. A.
Lee, Frank, and Co. Pty. Ltd.
Livesey and Crowther Ltd.
Schweiter Ltd.
Stamp, John W.
Vance and McKee.

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Port Phillip Mills Pty. Ltd.

WOOL (Greasy).

Port Phillip Mills Pty. Ltd.

WOOL (Scoured).

Port Phillip Mills Pty. Ltd.
Tweedside Manufacturing Co. Pty. Ltd.

WOOLTOPS.

Lincoln Spinning Mills Pty. Ltd.
Port Phillip Mills Pty. Ltd.
Valley Worsted Mills Pty. Ltd.
Yarra Falls Ltd.

WORSTEDS.

Albion Woollen Mills Co.
Globe Worsted Mills Ltd.
Hirst, Godfrey, and Co. Pty. Ltd.
R.S. and S. Woollen and Worsted Co-op. Mfg. Co.
Tweedside Manufacturing Co. Pty. Ltd.
Valley Worsted Mills Pty. Ltd.
Vicars, John, and Co. Ltd.
Yarra Falls Ltd.

YARNS (Weaving or Knitting).

Coloured Cotton Spinning Co. Ltd.
Foster, L. J, and Co.
Foy and Gibson Pty. Ltd.
Jackson and Co., Wm. C.
Lawson, R. P., and Sons Ltd.
Lee, Frank, and Co. Pty. Ltd.
Lincoln Spinning Mills Pty. Ltd.
Patons and Baldwins Ltd.
Valley Worsted Mills Pty. Ltd.
Vance and McKee.
Wangaratta Woollen Mills.
Yarra Falls Ltd.

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