first soda would be added, then acid, then a blue, then perhaps a red, and so on; in fact, the dver worked on a rule of thumb system, not knowing why and wherefore he carried out his work as he did. Now the modern coal tar dver has altered this. The dver has learned to use as few substances as he possibly can, with the result that he can depend upon getting the shade he desires, and obtain results that were before impossible. For example, it was in the olden days impossible to dye a garment containing both wool and cotton in the same color, for all the then known dyes had such an affinity for the wool that either they would not dye the cotton at all or give it only a slight tint, and the only thing the dyer could do was to unpick the garment and dye the wool portion separately from any cotton linings it might contain. Now, thanks to the discovery of the direct dyes, like Diamine Black, Benzopurpine, Thioflavine S, Titan Scarlet, Diamine Brown, etc., and the neutral dveing wool colors, like Naphthylamine Black, Scarlet R, Lanacyl Blue, etc., the garment can be dyed in one bath with the certainty of obtaining precisely the same shade on both the wool and the cotton.

## NECESSARY PROTECTION.

We referred in our last issue to the request of the woolen manufacturers for a raising of the tariff in view of the increased British preference, coming into operation July 1st. We have heard many valid reasons given why Canadian manufacturers should have a measure of protection against the products of other countries, but there are also being advanced some arguments that are, to say the least of it, not based on facts. Of the former one, as unanswerable as it is true, is that the British manufacturer may run his mill on one line for years and the Canadian must run on many lines at the same time. This means vastly increased cost of production in Canada.

But we cannot allow to pass unchallenged such a statement as that of a contemporary, who says ". . . reducing the duty on all British woolen goods to 23 1-3 per cent. This, the Canadian manufacturer feels, is an inadequate duty considering the present state of the industry and the prospects of competition from low-class British fabrics made largely of shoddy. This class of stuff is not produced in Canada, the machinery and labor in use not being adapted to its production. It is not, in fact, considered a class of material which should be used, because the quality is poor and the fabric not durable. It is against the shoddy goods, and not the finer classes of woolen fabrics made in such perfection in Great Britain, that our manufactures protest." This paragraph contains much that is true, and some things that are misleading. Our manufacturers do fear the competition of "low class British fabrics made largely of shoddy;" but, alas, not because "this class of stuff is not produced in Canada," but because "the labor and machinery is not adapted to its production," and our manufacturers are unable to make as low grade stuff as the British, who, with superior machinery and specially skilled employees, can produce shoddy goods having a marvellous appearance of genuineness. Our mills, and there are many of them turning out cloths, at fifteen to thirty cents per yard, cannot sell their goods against British goods of equal durability, because the appearance is inferior. It is a pity that protection which is necessary to the existence of the industry should so work out as to stimulate the production of inferior goods, but this it has done in Canada, and the United States as well.

## THE LONDON WOOL SALES.

The third series of the 1900 wool auction sales closed May 25th with offerings of 8,285 bales. selection was fair, and met with a good demand at firm prices. The bulk of the offerings was taken by Yorkshire. The third series of sales opened with an average depreciation of 10 per cent,, being most pronounced in inferior and faulty stock. Merchants, considering the statistical situation favorable, would not accept the reduction, and withdrawals were heavy. Upon the approuncement of heavy curtailment competition became more animated and widespread. Medium coarse crossbreds throughout were in better demand. This grade opened 71/2 per cent, cheaper, and later, upon the resumption of American purchasing, hardened and closed firm at 5 per cent, below the March average. Fine crossbreds followed merinos. Cape of Good Hope and Natal started 71/2 per cent, cheaper. Inferior greasy and poor fleeces were hard to sell until refused an additional 5 per cent. Of the offerings during the series, the home trade secured 70,000 bales; the continent, 50,000; American, 3,000, and 167,000 bales were held over. The following were the sales of the closing day: New South Wales, 800 bales—Scoured, 1s. to 1s. 71/2d.; greasy, 5d. to 1s. 1/2d. Queensland, 400 bales-Greasy, 7d. to Victoria, 800 bales-Scoured, 51/2d. to 1s. 1/2d.; greasy, 51/2d. to 1s. 1/2d; South Australia, 50 bales-Scoured, 1s. 21/2d.; to 1s. 6d. New Zealand, 4,900 bales-Scoured, 634d, to 1s. 7d.; greasy, 414d, to 1s. 1od. Cape of Good Hope and Natal, 1,100 hales—Scoured, 111/2d. to 1s. 81/2d.; greasy, 5d. to 91/2d.

## UP-TO-DATE.

The fact that British manufacturers are alive to the necessity of taking advantage of every improvement is shown by the following extract from a textile journal in Great Britain: "E. D. McCrae's new shirt and collar factory in Wood street, Dublin, is supplied throughout with electric light, and all the machinery is worked by electric motors. The electricity is generated on the premises with a Crossley gas engine and dynamo, They have a plant for making their own gas."