Н.—6в.

A striking object was the fine iron verandah in front of the dais, an excellent piece of workmanship in ornamental iron casting, by Messrs. Barningham, of Dunedin.

## MACHINERY

Of tool- and machine-making there were some excellent examples, showing that this important branch of trade is receiving attention. I was particularly struck with the excellence of the mining tools executed by Messrs. Cutten and Co.

The show of agricultural machinery was less extensive than might have been expected, considering the enormous development in late years of agriculture in the southern districts, and the demand there must be for implements of husbandry

The explanation may, however, be that the makers are too

busy supplying orders to have been able to prepare special exhibits.

Messrs. Reid and Gray show admirable samples of workmanship, which establish their superiority over other colonial implement makers at Sydney and Melbourne. It may be mentioned, as a satisfactory tribute to the excellence of their patterns, that animated discussions took place almost every day at Melbourne over their ploughs, and experts were continually taking drawings and measurements of them.

A novel and ingenious form of harrrow, by Messrs. Haxter and Beattie, attracted a good deal of attention. It is made by binding together the tines, so that the whole is flexible, and may be altered to any dimension or form required for the particular purpose. These harrows seem to combine the requisites of strength, lightness of traction, and portability, with the novel feature of the machine

adapting itself to irregularities in the surface of the ground.

An important mechanical exhibit, which was shown in operation to interested crowds, was Mr. Ashcroft's Pulverizer, a modification of the Berdan, which the inventor has perfected, as the result of extensive experimental trials. The essential feature is the production of a bruising action, in addition to the grinding of the ordinary Berdan. This is effected by driving the balls with cones, which impart a motion to them on a vertical as well as a horizontal axis, similar to the operation of a pestle and mortar in skilful hands. By a screw motion the pressure is brought to bear above or below the centre of the balls, thereby controlling the amount of force exerted on the material that is being crushed. Although principally intended as a crusher for auriferous quartz, this machine may be adapted to a variety of purposes. It does its work in a remarkably short time, and with a minimum of power. Being very portable, it should come into use for prospecting purposes in remote districts, inaccessible to ordinary mining machinery. Moreover, many mining enterprises that have failed with ordinary stamping machinery would have recovered gold in payable quantity with an apparatus on this principle; especially when the gangue consists of small friable quartz veins, intermixed with a large proportion of soft decomposed rock—as for instance, in the case of the reefs at the Longwood Hills, near Riverton.

The above are a few selections from the many objects in the Exhibition which are at present manufactured from imported materials, although the time is not far distant when we may see our native ores turned to account in the production of the iron, brass, and lead required for such products. Most of the other striking exhibits were made from the raw materials produced in the colony.

## WOOLLEN GOODS.

Taking, in the first, manufactures from animal products, the woollen cloths of the Mosgiel Company take the first rank as an instance of the successful establishment of a most important industry, relying, for its successful competition with imported goods, entirely on the intrinsic merit of its products. The Company well deserve the favourable notice they received at Sydney and Melbourne, and, as this is an unlimited field for the employment of labour, it is to be hoped that like success will attend the opening of numerous woollen mills in other parts of the colony. The profitable consumption of even a very small proportion of the wool, at present exported from the colony in the raw state, would be sufficient to employ enough hands to consume all the anticipated excess of animal food, and obviate the necessity of resorting to expensive expedients for its shipment to other countries.

The tanning trade, which is of scarcely less importance to a country as a means of converting abundant raw material into a valuable commodity, was represented by eleven exhibitors, showing all the various kinds of leather used for boot-making, harness-making, and ornamental furnishings, of the

best quality

The trades for the making up of articles of clothing, including apparel, boots and shoes, sheeting, hosiery, hats and caps, from the foregoing materials, were all well represented, and indicate a healthy activity in the application of industry, and that a market for such colonial-made articles is thoroughly established.

## OTHER ANIMAL PRODUCTS.

Of soap and candles there are three principal exhibitors, Messrs. McLeod Brothers having the most extensive display, showing their thorough mastery of the details of this important industry, the successful establishment of which requires no mean scientific and technical acquirements.

## WOODWARE.

From the vegetable kingdom a large number of products are also successfully utilized. The woodware and inlaid furniture offers the most striking objects; and they display great taste in design and perfection of workmanship, in the adaptation of the various excellent and beautiful timbers which are indigenous to New Zealand, the peculiar excellence of which for such purposes lies in their having close grain and strength of hard-woods, while at the same time they are free working, and can be treated by modern improvements in machinery as successfully as the soft-grained woods of Europe and America. In addition, they present such a variety of colour and natural marking as to enable the production of highly ornamental work at a low cost.

For variety of objects, the exhibits of Messrs. Guthrie and Larnach are very remarkable, showing

the complete appliances with which this extensive establishment is equipped.

For elegance of design, as far as I could judge, the dining and drawing room furniture manufactured by Mr. White, of Christchurch, was not inferior to similar exhibits in the British Courts at Sydney and Melbourne.

The business of carriage-building in the colony seems to have reached great perfection, the exhibits showing vehicles of graceful models, without sacrificing the strength that is required for the

rough wants of the country