

## MINERAL PRODUCTIONS.

The exhibits of coal were very remarkable. They included specimens, some of them of great size, from Mount Hutt (a recent discovery), Brockley (Whitecliffs), Rockwood (Rakaia end of Malvern Hills), Springfield, Mount Somers, and Kakahu, in Canterbury, as well as several from the Grey and the Buller, on the West Coast. It will be seen from this group of exhibits that coal of a serviceable character is found in large deposits throughout the whole length of the range of hills skirting the Canterbury plains, a fact which affords the best prospects for the industrial future of that part of the colony. The local coals are already largely in use, and the notice which they gained at the Exhibition is calculated to lead to increased enterprise in bringing them into consumption. The delay in the construction of the Mount Somers Railway was represented to me as the only obstacle that has prevented the wholesale development of the deposits of that spot; and the high rate of carriage on the railways generally was mentioned as a great discouragement to the coal industry. Among the exhibits in this department were several specimens of bituminous and anthracite coal, the latter of which is said to be of great value. These were from the hills near the gorge of the Rakaia. There were also shown a very interesting group of specimens found in the course of their explorations by the engineers who have recently been engaged in seeking an available route for a railway from Canterbury to the West Coast. These included nine or ten different samples of coal, some of them of a superior class. Several remarkably fine specimens of coke were also shown.

The exhibits of building-stone were numerous, and of excellent quality. Among these the white stone from Mount Somers, where it is said to exist in vast quantities, was the most prominent. The well-known and highly-valued Oamaru stone was exhibited side by side with it, in cubes prepared for the purpose of comparison by weight. Tried by this test the Mount Somers stone was obviously superior. A carved monumental tablet of Oamaru stone, however, exhibited as having been exposed to south-west weather for six years, and displaying chisel-marks and fine edges still unimpaired, proved that stone to be of a quality scarcely to be surpassed in the world for the finer purposes of the builders' art. An excellent white stone from Albury, and another from Kakahu, almost equally good, were also shown. This latter, I am informed, is the material used in the large and handsome Catholic church at Temuka, which forms such a prominent land-mark from the Rangitata to Timaru. Specimens of blue grit from Dunedin, valuable hard building-stones for rough work, were also exhibited. In worked stone, a large plain font in solid Oamaru stone, and a substantial and slightly mantelpiece in Castle Creek stone, were exhibited, together with a mantelpiece and tables executed at Christchurch from Italian marbles. Limestones of various kinds from Malvern and Kakahu, together with fine specimens of lime burnt from them, were shown. The pure white chalk from Oxford appeared to great advantage. There was also a most interesting exhibit of cement made from this chalk, with which was shown a specimen of real Portland cement, which it is hoped the Oxford cement will ultimately rival. In this group appeared some valuable samples of mortar and cement made from the well-known Mahurangi limestones. I regard these experiments in the production of hydraulic cement as of great importance, and consider the progress demonstrated by these exhibits as highly encouraging. One of the finest exhibits in this department was that of fire-bricks from Springfield. These beautiful productions were highly finished and of superlative quality; and I was assured by professional men of whom I made inquiries that they were not only better, but 25 per cent. cheaper, than imported articles of the same description. Fire-bricks from the Brunner clays were also shown; but, though probably possessing valuable serviceable qualities, they did not compare at all favourably with those from Springfield in point of finish. Common bricks and flooring-tiles made at Ashburton were shown, displaying excellent handiwork, but not free from the prevailing defects of all New Zealand bricks, the result, probably, partly of inferior clay and partly of short burning.

Drain-pipes of magnificent quality, from huge cylinders down to slender tubes for household purposes, were shown by several Canterbury exhibitors, accompanied by fine specimens of brown, glazed, and white (terra cotta) work from fire-clay; chimney-tops, garden-tiles, coarse pottery, and, a most useful and ingenious description of sink-traps, with movable grates, from the same material. The exhibits of terra cotta from Malvern were also excellent, and the whole of this group demonstrated unmistakeably that this important branch of industry has been completely mastered in the colony. A good exhibit of gas-tar, pitch, and asphalt, with specimens of their application to pavement, street-channelling, and the lining of cisterns—all Ashburton work—deserves mention here. A small sample of hematite from Nelson was shown—a most valuable painting material, that is not nearly so widely used as it ought to be.

Pottery of various kinds formed a most gratifying feature of the exhibition. From Christchurch came brown-ware, glazed-ware, jars of all sorts and sizes, demijohns, stone-ware, Rockingham-ware (a homely kind of crockery of rustic appearance), figured and coloured goods, garden-vases, fountains, and filters. All these classes are now produced at prices that enable the manufacturer to undersell the importer. From Otago (Milton works) came excellent specimens of table and toilet services, quite equal to the ordinary sorts of imported goods, ornamental flower-pots of great elegance and finish, sets of table crockery made in a particular design to order, and other articles of common use, not to be distinguished from those imported. From Dunedin came clay-pipes of various patterns, including all the more familiar forms of "cutty" and "dhudeen."

Porcelain-work of the most beautiful description was displayed by the manufacturer, from Christchurch, who made the various articles before the eyes of the visitors. The materials for this work are imported at present, but it is confidently hoped that suitable ones will be obtained from Malvern, which seems to be a laboratory of nature. Kaolin and feldspar have both been found there, but not yet in sufficient purity for the purposes of this trade. Specimens were exhibited. The plumbago from Rockwood (Rakaia) makes good crucibles and muffles for high temperatures. Specimens of this singular substance were shown and their qualities explained.

## WROUGHT METALS.

Cooking-ranges and washing-boilers in great variety were exhibited by Christchurch and Ashburton makers. In the common lines the imported articles are driven out of the market by the manu-