

## CINNABAR.

The New Zealand Quicksilver-mines (Limited), who are engaged in mining a lode containing cinnabar at Puhipuhi, North Auckland, have continued stoping the block of ore which they disclosed in their development operations about two years ago. During 1919 the company mined and retorted 650 tons of ore for a return of 11,175 lb. of quicksilver, valued at £2,794. The Customs' returns for the same period show that 8½ tons (19,264 lb.) of quicksilver, valued at £4,619, were entered for exportation.

Development of the mine has recently been resumed, and the low level, which had to be retimbered, has been further advanced. The lode now showing in the face is about 2 ft. wide and contains a fair percentage of cinnabar. The company at an early date anticipate boring a number of holes from the surface with a diamond drill in order to determine the extent and value of this lode at a greater depth.

## KAURI-GUM.

During 1919 4,128 tons of kauri-gum, valued at £255,812, were exported, the total quantity and value of gum exported to the end of this year being 360,420 tons, valued at £18,581,064.

This industry is now controlled by an officer of the Lands Department, and detailed information is published in that Department's reports.

## VI.—STONE-QUARRIES.

## (1.) QUARRYING OPERATIONS.

For several years past it has been the custom to point out that the inspection and statistical information concerning quarries in the Dominion are not as complete as they should be. Under the Stone-quarries Act, 1910, inspection is only required of places where the rock-faces exceed 20 ft. in height and explosives are used in the quarrying operations. There is little doubt that there is an equal amount of danger in handling explosives whether the rock-face is over or under 20 ft., and, again, for the safety of the worker certain quarries, whether explosives are used or not, should be under the Inspector's supervision. During the year two fatal accidents occurred in the Auckland district in quarries to which the Act does not apply. In one case at Morrinsville A. Parkinson was undercutting the face of a gravel-pit when the overburden fell in and entombed him. At the Kauroa quarry, near Raglan, where the rock-face was 18 ft. deep, T. G. Dunlop was killed by an explosion whilst forcibly recharging a hole in which a missfire had occurred.

Unlike the Coal-mines and Mining Acts the Quarries Act does not compel the owner to furnish complete annual returns. The information which is tabulated below deals only with quarries visited by the Inspectors in the course of their duties, and was courteously supplied at their request by the several owners or managers. No returns are to hand from a number of producing quarries whose operations are such that they do not require inspection.

With the information available, which is of course incomplete, it will be seen that the quarrying industry is steadily increasing. The production of 219 stone-quarries amounted to 1,056,329 tons, and required the services of 1,409 persons. The production of building-stone amounted to 27,051 tons, and limestone for agriculture and cement-manufacture to 245,192 tons, both products showing a considerable increase on the returns of last year.

The products from the quarries in the Dominion have not yet found an extensive outside market. During 1919 these exports, which consisted of small quantities of lime, serpentine, dressed marble, building-stone, and pumice sand, were valued at £4,039, of which total 1,037 tons of pumice sand, valued at £2,840, was the chief item.

Table showing the Number of Quarries under the Stone-quarries Act, 1910, also the Number of Persons ordinarily employed thereat, and the Annual Output of Crude Stone during, 1919.

Provincial District.	Name and Address of Government Inspector of Stone-quarries.	Number of Working Quarries under the Act.	Number of Persons ordinarily employed.	Output of Crude Stone.							
				Stone or Gravel for Macadamizing or Ballast.	Stone for Harbour-works.	Building-stone.	Limestone for Agriculture.	Limestone for Cement or Mortar.	Phosphate for Agriculture.	Fireclay for Bricks or Tiles.	Sand for Building or Asphalting.
Auckland ..	James Newton, Mines Dept., Auckland	87	510	Tons. 250,195	Tons. 41,786	Tons. 21,318	Tons. 23,270	Tons. 104,480	..	..	..
	M. Paul, Mines Dept., Waihi (Hauraki Mining District only)	11	61	37,109	..	1,730	..	..	..	..	..
Hawke's Bay	James Newton, Mines Dept., Auckland	21	108	27,425	65,397	..	21,000	..	..	..	..
Taranaki ..	Ditto .. .. .	14	68	22,830	28,960	..	..	..	..	..	..
Wellington ..	" .. .. .	37	163	77,989	3,794	..	10,700	..	..	..	..
	G. Duggan, Mines Dept., Greymouth	2	15	..	5,852	..	..	..	..	..	..
Nelson Westland	J. F. Downey, Mines Dept., Reefton	4	115	2,500	..	794	..	15,579	..	..	..
		2	16	375	..	..	973	..	..	..	..
		1	4	..	..	..	70	..	..	..	..
Canterbury	E. R. Green and A. Whitley, Mines Dept., Dunedin	10	88	83,325	18,979	1,100	4,000	2,000	..	..	..
		24	227	78,879	2,332	2,109	36,627	21,123	4,000	2,500	6,685
Otago		6	34	7,274	15,900	..	..	..	..	..	..
Southland											
Totals 1919	..	219	1,409	587,901	183,000	27,051	102,010	143,182	4,000	2,500	6,685
Totals 1918	..	247	1,453	611,169	90,061	4,197	86,807	36,507	5,000	2,500	6,186

Further particulars regarding the inspection of stone-quarries in the North Island are contained in the annual report by James Newton, appearing in Annexure C accompanying this report.