

tively, when once mined, is required to prepare it for market. Low grade ore is produced in Chili, United States, Spain and Prussia, also some No. 1, but none equal to Tenny Cape. Anyone knows that the freight and cost of handling No. 1 and low grade ore is the same. Tenny Cape is nearer Boston and New York, the principal markets on this continent, than any other mines. The manganese is shipped in kerosene casks, admirably adapted for the purpose. A kerosene cask holds from eleven hundred to fourteen hundred pounds. The manganese is handled altogether by water to New York, in plaster vessels, to England in vessels carrying deals. With this advantage the freight is very low. As we showed last week, a profit of over fifty per cent was made on the ore handled from Tenny Cape last year. Manganese is one of the iron group of metals. It generally occurs as an oxide. The Egyptians and Romans used manganese in glass making, but the first impetus given to its use was when the method of making chlorine from it was discovered in 1785. Still a much larger demand was made for manganese when Heah discovered its value in steel making in 1859, and again when Bessemer in 1858 made his wonderful invention of steel manufacture. At the present time manganese is used in a great many of the arts and manufactures. Manganese-bronze, an alloy with copper, is used in making propellers, guns, bearings, etc. Manganese is also alloyed with silver, aluminum, zinc, tin, lead, magnesium, etc., and used in the arts. When used as an oxidizer, it is in the manufacture of chlorine, bromine, as a dryer in varnishes and paints, the preparation of oxygen and disinfectants and telephone batteries. Manganese is also used to color glass, pottery, brick and paints, and in calico printing and dyeing. Hitherto the product of the Tenny Cape mine has been sold to middlemen in Boston and New York but it is the intention of this company to crack, granulate and powder their ores to suit the varied uses and demands of manufacturers, electricians and chemists, and in this way secure the very highest prices obtainable for their product, which prices are from 4 cents to 8 cents per pound. Tenny Cape in the past has been worked in a very old fashioned way, the owners, not mining men being content with the profits made. With improved methods the output can be doubled, and the present owners say that the demand for Tenny Cape ore is practically unlimited.—*New Glasgow Enterprise*.

If old people are forgetful, they always remember to use Johnson's Anodyne Liniment.

DEEP DOWN IN A COAL MINE.—An Account of a Trip in Drummond Coal Mine.—Our little party each provided with a safety lamp whose faint light is unnoticed in the dazzling sunlight, soon gather round the pit's mouth. I feel more cheerful when, instead of the deep dark perpendicular hole down which we had expected to be lowered, I see a slope of about 35° in which lies the "rake," consisting of a number of long narrow cars with rough board seats. After a long gallop at the earth around and the sky above, curiosity conquers my half-felt fears, and, as I reluctantly cast myself by the others, I think of a toboggan slide to which the resemblance increases when we start rapidly down into the bowels of the earth lighted only by our tiny lamps. A few moments and the cry "bend down" is heard, the solid earth seems about to fall on our devoted heads, so now it is as we sped on our path downward and onward. After about five minutes rapid movement during which we wonder what would happen if the cable should break, we slacken our pace as the bottom of the slope is neared and soon stop altogether. Leaving the car and glancing eagerly around at the strange scene before us, we seem transported to the abode of gnomes and genii. All is so different from the world we have always known where every thing is so instinct with light and life and beauty, while here below these gloomy caverns seem filled with the blackness of darkness. As we follow our conductor beneath the gloomy arches of solid coal supported here and there by wooden columns, splashing through black slimy pools that seem more like ink than water, we some times have to crowd close to the wall to allow a horse, dragging a loaded car and urged forward by a boy, to pass us. The clank, creak of the hoofs and the cries of the driver echo with a rattling effect throughout the dark passages and with nervousness at highest tension we press on. Far off in the dark from cuttings up in the sides, we see little points of light that twinkle like stars and can hear the crash of falling coal and the shouts of men at work in the distance. At each sound my heart stands still with dread and I think of the men buried by the explosion of '73 in this very pit whose bodies have never yet been recovered. Some killed by the first explosion while others, brave men who went to the rescue, lost their lives in a second. I remember vaguely that terrible day—the dark cloud of smoke hanging over the town and visible even from our country home, the wild excitement of all, and at night my father smoothing his little daughter's hair as he told her of the children whose fathers would never return, and am only roused when my tears begin to fall even as then. We still follow on through draperies of coarse canvas (brattices our guide calls them) arranged for ventilation. We pass sometimes through a door opened by a little trapper boy whose merry call pursues us as we go onward to the drum. A balance power so arranged that as the full box comes down the empty one goes up and to the pumping engine without which the lower levels would be flooded. We then retrace our steps visiting on our way the stables where we are delighted to see sleek well fed animals, instead of the faded hacks we expected. Still returning we soon arrive at the level where is our rake, and taking our seats we are rapidly conveyed upwards, where we thank God as never before for light and pure air. In the full clear day all that I saw below seems as distant and unsubstantial as a dream. I only know it is real when I look on the little piece of coal dug by myself 3700 ft. below the earth's surface and kept as a souvenir of the day when I was down in a coal mine.—*Nan, in New Glasgow Enterprise*.

THE ENERGY STORED IN COAL.—A curious and interesting calculation

has been made by Prof. Rogers, of Washington, D. C., on the "dynamic" power of coal. According to his deductions a pound of good steam coal has within it dynamic power equivalent to the work of one man for a period of ten hours. Three tons of similar coal represent a man's labor for a period of several years. One square mile of a seam of coal having a depth of only four feet represents power equal to that expended by one million men ten hours each day for twenty years! Such calculations as those made by Mr. Rogers may serve to remind us how very wasteful our methods of burning fuel must be, in spite of all that has been done in the fuel saving line by the inventors and economists.

Chilblains, chapped hands, frost bites are cured by bathing in Johnson's Anodyne Liniment.

MINING EXAMINATION.—The candidates for mining certificates are loud in their complaints at the unfair 'survey' set by the examiners. Three years ago a similar 'survey' was set, and it was admitted by the examiners themselves that it was so unfair and beyond what was required that it was pitched out and at the same time a promise was given that a like question would not be given until they got the appointment of a man to teach the first needle surveying. Now that this promise has not been kept, it is a gross injustice on the candidates, who all feel strongly on the subject.—*Enterprise*.

Hood's Pills are purely vegetable.

NEW PROCESS FOR THE REDUCTION OF GOLD-BEARING ORES.—Nova Scotia is essentially a gold bearing and producing country. It will be of special importance to mining interests to say that there is at the present time on exhibition at Windsor a mill constructed by one of our countrymen on an entirely new principle. The mill, while it produces special advantages, is in a great measure a departure from all of the old and recognized methods for the extraction of gold, particularly from rebellious ores. The company is incorporated, and the mill and process are now in full operation. The percentage of gold obtained by this method has proved to be something marvelous, and far in excess and more valuable than any other process yet devised. The representatives of this "Dominion Reduction" company are, at present, visiting Windsor, having recently arrived by a special conveyance, and their names are as follows:—F. Rockwood Hall, president; Dr. Chas. S. Hardy, vice-president; Henry C. Shorman, treasurer; Orion A. Morse, secretary; Capt. Hanson Gregory, Jr., and A. T. Vanhorn, executive committee. Mr. Vanhorn is residing agent.—*Chronicle*.

ALLUVIAL MINING.—Captain J. A. Watt has just returned from eastern parts of Nova Scotia where he had been selling mining stock of the Middle River (C. B.) Alluvial Gold Mining Company, limited. The captain has been very successful in getting stock taken, and states that he has about sold out the full amount of the shares. He is now engaged in getting a pumping engine and other plant for operations at the mines in the spring. Captain Watt is the first to undertake this important branch of mining, which will no doubt tend to the prosperity of the alluvial deposits, which are supposed to be plentiful.—*Chronicle*.

SOAP MAKERS TO THE QUEEN



SEETON & MITCHELL, Halifax, N. S. Wholesale Agents for Nova Scotia & P. E. I.

Johnson's Remedy for Catarrh is the Best, Easiest to Use, and Cheapest.

CATARRH

Sold by druggists or sent by mail. See E. T. Haseltine, Warren, Pa.

## HALIFAX STOCK EXCHANGE

These quotations are furnished by J. C. Mackintosh, Banker and Broker, 166 Hollis St., Halifax, N. S. Dec. 21.

Stock	Price	Buyer	Seller
Bank of Nova Scotia	\$100	166	171
Bank of N. A. America	243.33	145	150
Merchants Bank	100	137	141
Union Bank	50	122	125
People's Bank	50	114	117
Halifax Bank	50	114	117
Bank of Yarmouth	75	212 1/2	...
Exchange Bank of Yarmouth	70	200 1/2	...
Com. Bank of Windsor	40	107	110
Acadia Fire Insurance Co.	70	225	231
Halifax Fire Insurance Co.	70	220	225
Eastern Assurance (25 pd.)	100	...	30
N. S. Marine Ins. Co. (25 pd.)	100	...	30
E. C. Sav's & L'n Co., Bonds	100	99	100
" " " " " " " "	100	100	101
(50 pd. up.)			
N. S. Telephone Co.	10	100	105
Halifax Gas Light Co.	40	90	95
Dom. Coal Co., Bonds	500	...	95
" " " " " " " "	100	...	94
" " " " " " " "	100	25	31
N. G. C. I. & R. Co., pref'd.	100	80	95
" " " " " " " "	100	...	75
N. S. S. & F. Co., pref'd.	100	...	100
" " " " " " " "	100	...	100
Halifax & N. B. S. Co.	100	50	75
Canada & N. B. S. Co.	100	...	99
Yarmouth S. S. Co.	100	...	75
Coastal Steam Packet Co.	100	...	90
H. & Lunenburg Steamship Co.	100	...	90
Acadia Sugar Refinery Bonds	500	...	98
Dom. Cotton Co., Bonds	500	100	101 1/2
Dom. Cotton Co., Stock	100	116	119
Bras d'Or Lime Co., Bonds	50	...	100
Starr Manufacturing Co.	100	30	30
Rhodes, Curry & Co., Ltd.	50	...	100
St. of Canada Marine Ry. Co.	50	30	30
N. S. Fishery Co., Ltd.	100	...	100
McDermott Distillery Co.	100	...	99
" " " " " " " "	100	...	99
Dartmouth Electric Light Co.	...	...	90