

ground. How it got there is not definitely known; but it is supposed that a bolt of lightning, attracted no doubt by this vast iron formation, tore its way into the ground and wrenched from its hiding place this huge mass. This seems all the more probable on account of the fact that when the seam was unearthed, a cavity was found into which this boulder would exactly fit. The lead was prospected for and found only three feet below the surface. The vein is seven feet wide and descends perpendicularly between two walls of slate. The deposit is pure oxide of iron, very easily smelted, containing 60 to 70 per cent. of iron. A mining company was soon formed called the Torbrook Iron Company. The president and managing owner of this company is R. G. Leckie, Esq., who is also president of the Londonderry Iron Company. The operations of the company were somewhat meagre at first; but now every appliance known to modern science for economical and easy mining is to be found at these mines. A railway has been built from Wilmot Station connecting them with the railway system of the Province. The ore at present is raised from four shafts, one of which has been sunk to the depth of 150 feet. Dynamite is used for blasting, and the drills are worked by compressed air. The hoisting gear of each shaft is worked automatically and independent of each other, though all derive their power from the same engine. As one stands and sees the bubbling of ore almost silently brought to the surface, and hears the splash of the water rapidly forced from a pump six inches in diameter, which keeps the mines free from water, he cannot but admire the skill and ingenuity of man. It would well repay a visit to these mines if for no other purpose than to see the simplicity and perfection of the machinery by which they are worked. The company altogether employ something over 100 men, with a payroll of nearly \$4,000 a month. The daily output is nearly 150 tons. This is sent to Londonderry every other day by special train. The iron made from this ore is unsurpassed in quality by any in the world. Even the iron made from the famous Spanish mines has had to acknowledge a superior, and bow before the product of the Torbrook ore. As a substantial evidence of this fact, it may be said the price of pig iron made from this ore has advanced recently from 40s. to 56s. per ton in the English market. The value of property in Torbrook is rapidly increasing. Farms which three years ago could not find a buyer at \$2,000, cannot now be purchased for \$5,000. A new street has been laid out. About twenty new buildings have been erected, and another year will see the chimney tops of as many more. In the near future Torbrook will be a full-fledged mining town. All the conditions of growth are decidedly evident. The company have plenty of pluck, enterprise and capital. The people of the place give the enterprise their cordial and hearty support. Instead of a quiet and somewhat dull farming community, in a few years Torbrook will be the Pittsburg of Nova Scotia.—*P. in Digby Courier.*

OLDHAM.—The Oldham Gold Mining Company returned for September 301 ozs. 3 dwt. 4 grains from 178 tons quartz crushed. The ore was from three properties as follows:—John Morrison, 16 tons yielding 6 ozs. 16 dwt. 4 gr., Standard Gold Co., 52 tons q'z. 252 ozs. 15 dwt. and—, Oldham Gold Company 115 tons 46 ozs. 12 grs.

MONTAGU.—The only sworn returns received at the Mines Office up to the 22nd Nov. for the month of October last was one from the Nova Scotia Gold Mines, Ltd., viz, 115 tons quartz yielding 442 ozs. smelted gold.

The December Quarterly Meeting of the "Mining Society of Nova Scotia" will be held at Halifax, N. S., at the Rooms of the Society, 129 Hollis Street, on Thursday, 8th December, at 10 o'clock, a. m.

The papers read at the June and September meetings will be discussed and the following papers read: papers on 'Late Modification of Coal Mining in Nova Scotia.' by Chas. Archibald, Manager Gowrie Coal Mining Co., Cow Bay, C. B.; Jas. Baird, Manager Canada Coal Co., Joggins Mines, N. S.; J. T. Burchell, Manager Gardiner Coal Co., Sydney, C. B.; J. G. Rutherford, Assistant General Manager Acadia Coal Co., Stellarton, N. S. and others.

THE PYRITES DEPOSIT OF PILLEY'S ISLAND, NEWFOUNDLAND.—In 1888 the writer, says Mr. Edward Jack, was called upon to visit Pilley's Island, Notre Dame Bay, Newfoundland, for the purpose of inspecting a deposit of iron and copper sulphides, which is now being extensively worked, the product being sent chiefly to New York. This, so far as the writer knows, is the most extensive pyrites mine on the whole American coast, and this and many others in Newfoundland are able to furnish the sulphuric acid needed for a number of chemical, pulp, fertilizer and other works. Pilley's Island mine is but one among many others. It is within a hundred yards of a wharf at which steamships of 3,000 tons burden can load. When Mr. Jack visited it, a shaft had been sunk to a depth of sixty feet; the deposit, which was a contact one, was seventy-two feet wide, and twenty-three feet of this carried between three and four per cent of copper. The rest was a remarkably pure iron sulphide, which parted so easily with its sulphur that the residue left after roasting out the sulphur was sold in New York for \$4 50 per ton for iron ore. The following is an analysis of the crude ore:

Copper	0 07	Silica	0 13
Sulphur	51 16	Lime	0 22
Iron	48 35	Arsenic	0 012

Antimony, lead, zinc, bismuth, none.

The mining at Pilley's Island is done by drifting. The drifts there are 8 feet square, giving, according to the estimation at the mine, about eight and a half tons of ore to the foot driven, the cost of driving being \$4 per foot. The ore, when placed on the piling ground, cost for breaking and raising 68 cents per ton. It is stated that much more than 30,000 tons of this ore goes to New York this season.

ESTIMATION OF SULPHUR IN COPPER.—The method generally employed is that of Fresenius, but it is long, difficult and subject to certain errors. By a new method which has been proposed by C. A. Lobry de Bruyn, says the *Revue Industrielle*, which seems more exact, and certainly more rapid, 25 grams of copper are dissolved in nitric acid and the solution electrolysed until 20 grains of copper have been precipitated. The solution is then evaporated until the nitric acid is driven off, when the electrolysis of the copper is completed. By this treatment all the sulphur is oxidised to sulphuric acid, and is easily determined in the solution freed from copper.

COPPET'S METHOD OF TREATING MINERALS CONTAINING NICKEL.—A patent, No. 484 875, has been issued to Jean de Coppet, of Paris, for a method of separating cobalt and nickel from minerals, mattes, speiss and other substances containing cobalt, nickel and copper, by reducing the cobalt and nickel of the mineral to the metallic state and separating the metallic cobalt from the nickel and copper by means of an acid solution of copper.

THE TESTIMONIALS.

Published on behalf of Hood's Sarsaparilla are as reliable and as worthy your confidence as if they came from your best and most trusted neighbors. They state only the simple facts in regard to what Hood's Sarsaparilla has done, always within truth and reason.

DRAUGHTS-CHECKERS Black men 1, 6, 9, 15, 18, 20, king 28;

All communications to this department must be addressed *directly* to the Checker Editor, Mr. W. Forsyth, 36 Grafton St.

TO CORRESPONDENTS.

OLIVER MCGILL.—Your card received with continuance of play on 298. Though it leads to a win from the point in your previous play at which you resumed, still you have failed to find the weak point in black's defence, which occurs at an earlier stage than this.

T. M., St. John, N. B.—Your card solving Problem 304 is correct. Our Halifax players are now projecting plans for the home campaign of the approaching winter and, if St. John players are so inclined, we do not doubt but that some interesting correspondence matches might easily be arranged. We would be very much pleased to hear more from players in your city, but we may note that not one of them has, as yet, tackled Problem 298. Will not some of them try it?

JOHN M. HUMPHREYS AND E. H. HUMPHREYS, Trenton.—Your cards with correct solutions to Problem 304 are received with thanks.

SOLUTION.

PROBLEM 304.—The position was: black men 1, 3, 7, 14, 17, 28, kings 20, 26; white men 10, 14, 19, 21, 23, 27, kings 12, 18; white to play and win.

14	9	1-10	9	6	32-28
7-14	18	9	3-10		16 19
27	24	27-18	6	31	white
20-27	21	7	28-32		wins.
9	6	16-23	12	16	

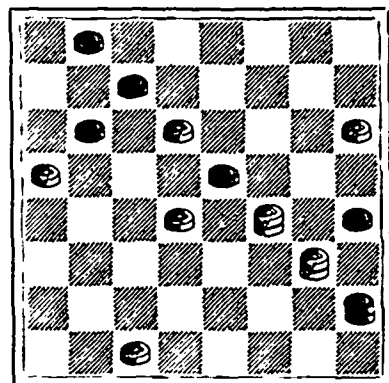
GAME 193—"SINGLE CORNER."

Played in Boston, Sept., 1887, between H. Z. Wright (black) and C. H. Freeman (white). From the *American Checker Review*:—

11-15	8-12	16-19	3-7
22 18	28 24	23 16	30 26
15-22	9-13	12-19	11-16
25 18	24 19	32 28	20 11
8-11	10-15	19-23	7-16
29 25	19 10	18 14	22 17
4-8	6-15	23-32	13-22
24 20	21 17	14 10	26 17
12-15	1-6	7-14	drawn.
26 22	25 21	17 1	

PROBLEM 306.

Entered for prize No. 4 in Liverpool *Weekly Mercury*—Stroke problems not exceeding eight pieces a side.



White men 10, 12, 13, 30, kings 19, 24.

White to play and win.
Do no Nova Scotia players intend competing for the *Mercury's* prizes?

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