

30 "Kelsey" furnace to be used, price \$1,600. The Metallic Roofing Co., Toronto, secured the contract for supplying the metal roofing and ceiling.

**ST. THOMAS, ONT.**—New waterworks pump: Allis-Chalmers Bullock, Montreal, successful tenderers, \$14,500.

**WINNIPEG, MAN.**—The C. P. R. have awarded the following contracts: Bridges on the Emerson, Pince Albert and Portal sections, Grant, Smith & Co., Minneapolis; concrete arches and rail-top culverts on the Ignace, Rat Portage and La Riviers sections, Kelly Bros. & Shane; sections houses on stone foundations, at Sunshine, Poland, and Biota, Mr. McGreevy, of Port Arthur; at Minitaki and Barclay, Mr. McFadyen, of Dryden; at Pipestone, Reston, Antler, Redvers, Manor and Beresford, C. Bennel, Brandon; section houses on posts and sills at Boharm, Mortlach, Secretan, Erfold, Herbert, Wasdeck, Aikens, Midale Ralf, McTaggart, Wilcox, Long and Hichecock, Mr. Creelman, of British Columbia; sixteen portable stations to be delivered to the company, C. Bennel, Brandon; portable stations at Balmoral and Crystal City, J. J. McDiarmid, Winnipeg.

**TORONTO, ONT.**—R. A. Rogers & Co. have been awarded the contract for concrete building of offices for the Canada Foundry Co., Toronto Junction, estimate about \$20,000, also for concrete work for new Home Bank building, King and Yonge streets.—F. H. Herbert, architect, has awarded the following contracts: Five story warehouse, Mincing Lane, for John W. Cowan—Brick and carpenter work, John McLeod; painting and glazing, J. McCausland & Son; roofing and galvanized iron, W. E. Dillon; plastering, Duckworth Bros. Three story store and dwelling, Yonge and Dundonald streets, for Geo. J. Melhuish—Brickwork, F. Holmes; carpenter work, Thos. Westlake; plastering, Taylor & Nesbitt; painting and glazing, S. N. Hughes; galvanized iron, W. E. Dillon; roofing, R. Rennie & Son. Storage building, Toronto Junction, for Pugsley, Ding-

man & Co.—Brickwork, Joy & Needham; armored concrete, Expanded Metal and Fireproofing Company; galvanized iron work, Wheeler & Bain; roofing, Geo. Duthie & Son.

**ST. JOHN, N.B.**—Seven tenders were received by the City Council for proposed waterworks extension to Loch Lomond. The total amounts of the tenders for each of the four sections follow: George M. Bryne & Co., Boston—Sec. 1, \$56,295; sec. 2, \$46,550; sec. 3, \$65,567; sec. 4, \$40,300. C. E. Trumbull Co., Boston—Sec. 1, \$54,500; sec. 2, \$47,975; sec. 3, \$61,217; sec. 4, \$38,650. George McArthur & Joseph McVey, St. John—Sec. 1, \$48,930; sec. 2, \$33,860; sec. 4, \$46,150. Gow & Palmer, Boston—Sec. 1, \$55,910; sec. 2, \$47,125; sec. 3, \$64,325; sec. 4, \$39,505. Boylston Construction Co., West Boylston, Mass.—Sec. 1, \$52,400; sec. 2, \$39,832; sec. 3, \$59,260; sec. 4, \$37,380. W. B. Byrne, Boston—Sec. 1, \$55,525; sec. 2, \$41,570; sec. 3, \$61,195; sec. 4, \$37,950. B. Mooney & Sons, St. John—Sec. 1, \$43,955; sec. 2, \$51,139; sec. 3, \$57,334; sec. 4, \$36,640. It is understood that the work will be awarded to McArthur & McVey and B. Mooney & Sons, at a total of \$176,764. The tenders received for 1,500 barrels of Portland cement were as follows: In barrels, from \$2.73 to \$3.50; in bags, from \$2.53 to \$3. For supply of 68 tons of cast iron pipe, the contract was awarded to D. Y. Stewart & Co. Five tenders were received, as follows: W. H. Thorne, 10 in., 6 in. and 4 in. pipe in 9 feet lengths, \$30.60 per ton; in 12 ft. lengths, \$31.80 per ton; total, \$2,162.40 and \$2,111.40. Vroom & Arnold, 10 in. pipe, \$31.25; 6 in. pipe, \$31.25; 4 in. pipe, \$31.25; total, \$2,125. D. Y. Stewart & Co., Halifax, 10 in. pipe, \$29.84; 6 in. pipe, \$30.34; 4 in. pipe, \$30.84; total, \$2,045. U. S. Cast Iron Pipe and Foundry Co., 10 in. pipe, \$30.40; 6 in. pipe, \$30.99; 4 in. pipe, \$31.00; total, \$2,628.20. Canadian Iron Works, 10 in. pipe, \$31.25; 6 in. pipe, \$31.25; 4 in. pipe, \$32.25; total, \$2,127.75.

**BUSINESS NOTES.**

The Canadian Pipe Co. commenced last year at Vancouver the manufacture of wire bound wooden water pipe, the demand for which is steadily increasing as the merits of the material become known. The attention of engineers and contractors is directed to the company's announcement referring to this material appearing in our advertisement pages.

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**"EXTRACT"**

RESULTS OF CANADIAN AND UNITED STATES CEMENT TESTS JULY 1ST, 1902, TO JULY 1ST, 1903, AT THE LABORATORY OF THE CITY ENGINEER OF THE CITY OF TORONTO.

C. H. RUST, City Engineer.

W. A. CLEMENT, Asst. Engineer.

Brand.	Soundness. Faiji Test.	Specific Gravity.	Residue in Per cent. on No. 100 Sieve	Setting in Minutes.		Tensile Strengths in Pounds per Square Inch.										Where Made.
				Initial.	Final.	Neat.					3 (Sand) to 1 (Cement).					
						1 dy.	7dys.	28dys.	3 mos.	1 yr.	1 dy.	7dys.	28dys.	3 mos.	1 yr.	
Alpha .....	O. K.	3.177	9.3	222	399	292	752	811	868	841	57	197	271	317	327	United States.
Atlas .....	O. K.	3.100	9.3	152	387	385	579	622	710	712	61	186	246	305	339	" "
Hercules .....	41% failed	3.159	7.1	120	240	292	696	836	777	711	51	174	222	242	231	Canada.
Imperial .....	O. K.	3.213	6.2	40	75	250	352	400	484	485	61	128	176	254	321	"
Lehigh .....	O. K.	3.183	9.1	166	356	348	746	849	897	880	73	201	273	334	361	United States.
Monarch .....	4% failed	3.154	7.5	176	355	366	653	701	731	701	66	173	242	303	355	Canada.
<b>NATIONAL</b> ....	O. K.	<b>3.135</b>	<b>2.1</b>	<b>162</b>	<b>345</b>	<b>307</b>	<b>701</b>	<b>783</b>	<b>827</b>	<b>804</b>	<b>74</b>	<b>214</b>	<b>299</b>	<b>367</b>	<b>368</b>	"
Rathbun's Star...	O. K.	3.140	5.0	123	305	359	581	640	677	676	75	193	255	313	349	"
Samson .....	7% failed	3.118	6.3	107	252	257	462	525	583	612	67	163	231	284	338	"

The Superiority of National Cement is Plainly Shown from the Above Figures. The Best is the Cheapest.

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