VANCOUVER, B.C.—The tender of A. Adams to construct a new Carnegie library building has been recommended for acceptance; price \$40,200. The other tenders were. E.Cook. -47,632; W. S. Hurst, \$41,900; Lachance, Martel, \$56,200; D. Saul, \$42,433.

TORONTO, ONT. — Gouinlock & Baker, architects, have let the contract for the hew building on Adelaide street east for the Toronto Electric Light Co. to the following: Masonry, Oakley & Holmes; plastering, T. Gander & Son. Same architects have let contracts for a five storey building, corner Duke and George streets, for Christie Brown & Co., to cost \$50,000.

I.ONDON, ONT.—Moore & Henry, architects, have let contracts as follows for alterations to nouse on Dufferin avenue for J.W. Latle. Mason and brack work, E. Martyn; carpenter work, R. G. Wilson; plumbing and heating, W. Skelley & Son; plastering, Gould Bros.—Herbert Matthews, architect, has let the contract for alterations to house on Talbot street for Miss McDonough to R. G. Wilson.

#### RESISTANCE OF CONCRETE.

When certain conditions are imposed to the manufacture of concrete two very important errors are frequently made, says a writer in an exchange. First, the employment of screened stone is insisted on, although the use of unscreened stone would be preferable. Second, the proportion of the mortar is fixed independent of the spacing between the stones. Screened stone give a larger proportion of spaces than the unscreened, and consequently they require more mortar, and produce a nore expensive concrete for the

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same volume of stones. W. A. Hawley and R. F. Krahl have recently made a series of experiments in order to determine the resistance of a concrete according to the relations existing between the space measurement and the quantity of mortar. In these experiments the proportion of spaces filled was, 125, 100 and 75 per cent. By increasing the proportion of mortar by 25 per cent., the crushing point was increased by 53 per cent, and the breaking point by 15 per cent.; a decrease in the proportion of mortar brought about a diminution in these two resistances of 21 and 35 respectively. In practical work the most economical form is that having a proportion of mortar equal to 125 per cent., because, by an increase of 14 per cent. on the net cost an increase of 14 per cent. on the net cost an increase in resistance of 33 per cent. is obtained; while by a 14 per cent. diminution on the net cost a decrease in resistance of 30 per cent. is brought about.

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