

and Ossington ave., asphalt pavement on Adelaide st., from York st. to Spadina ave.—Grading has commenced on the electric railway from High Park to Mimico.—Mr. L. O. P. Genereux, 1 Toronto st., wants tenders for the erection of a pair of semi-detached houses on Howland ave. near Bloor st. Plans at his office.—Messrs. Denison & King, architects, are preparing plans for the remodelling of the upper storey of the public library for a museum. Estimated cost \$70,000.—Building permits have been granted as follows: J. J. Graham, three det. 2-story and attic bk. dwellings, n.-w. cor. Tyndall ave. and Springhurst ave., cost \$10,500; M. Mason, pr. s.d. 2-story and attic bk. dwellings, n. side Lansdowne ave., n. of Morrison st., cost \$6,000; J. D. King & Sons, 4-story bk. factory, 124 Wellington st. w., cost \$4,500.—Mr. J. B. Perry, 45 Dunn ave., is looking for a suitable site for the erection of a residence.

### FIRES.

The residence of Gordon G. Vallean, Richmond, Ont., was destroyed by fire on Monday last. Insurance, \$1,000.—Beaupre & Rheume's foundry at Montreal was damaged by fire to the extent of \$3,000 recently.—The store and buildings of Mr. E. J. Hill, at Burk's Falls, Ont., were burned on the 25th inst.—On Sunday morning last a fire at Hamilton, Ont., did damage as follows: George Lee, loss on building, \$1,500, covered by insurance; W. Huffman, photographer, loss \$1,600, insurance \$1,100; W. Pedlar, tobaccoist, loss \$500, insured; Wood's Fair, \$1,000, insured; Smith & Co., loss \$150, insured.—Falconer's book publishing establishment at Dublin, Ont., was destroyed by fire on the 21st inst. The residence of Mr. Ralph Blauvatt, at Yarmouth, N.S., was burned on Tuesday last.—The residence of Mr. A. J. Smith, in Witchwood Park, Toronto, together with all its contents, was destroyed by fire on the 19th inst. Loss \$7,500, insurance \$4,000.—The malthouse of the Windsor brewery, at Windsor, Ont., was burned on the 19th inst. Loss \$5,000.

### CONTRACTS AWARDED.

The Milton Pressed Brick Company has received the contract for the supply of pressed brick for the new drill shed, Toronto; Dr. Robinson, president.

HALIFAX, N.S.—Mr. J. L. Olive has been awarded the contract for the erection of a residence on Brunswick st. for Mr. A. N. Brennan, Mr. J. C. Dumaresq, architect.

WOLFVILLE, N.S.—The Skodas Discovery Co. have awarded the contract for a four-storey brick building to Messrs. Rhodes, Curry & Co., of Amherst. The contract price is \$4,500.

HAMILTON, ONT.—Messrs. Leitch & Turnbull, have been awarded contracts for 3,000 lbs. electric elevator for Mr. J. Pugsley, 2,000 bs. ditto for Messrs. J. Cowan & Co., 1,000 lbs. ditto for James Skinner & Co.

### QUESTION OF THE LOWEST BID.

William H. Sayward, Secretary of the National Association of Master Builders, in *Carpentry and Building*, says: The recent decision of a case in the Massachusetts courts where a verdict was given the plaintiff, a contractor, on his suit to recover damages because he had been deprived of a contract for which he was the lowest bidder deserves particular comment, to bring to the minds of all members of the National Association of Builders and the building fraternity generally certain facts in law affecting certain customs prevalent in the submission of bids. A *resume* of the case was published in the October issue of this paper, and the mid-year meeting of the Board of Directors of the National Association ordered the dis-

tribution of a large number of copies of this statement for the information of filial bodies and all persons interested.

The trial of the case developed a certain fact which should be carefully noted by all contractors as seriously affecting their interests—viz., Although bidders may be selected and specially invited to estimate upon certain work, no bidder has a claim upon the contract by virtue of furnishing the lowest bid unless there be a special agreement to the effect that if the contemplated work is undertaken substantially as presented the contract shall be awarded to the lowest bidder. The agreement need not be in writing, but if verbal must be capable of proof. The introduction of the familiar clause "The owner reserves the right to reject any or all bids" does not hold against bidders if an agreement such as cited above, and upon which the decision of this particular case rested, has been made. The trial and decision of this case should awaken all contractors to the fact that if they wish to protect and insure themselves against loss of time in estimating and being deprived of possible profits upon work won in competition, they should be careful to secure an agreement of the nature above referred to. It is worthy of consideration whether, when bidders are selected and invited to offer estimates and are expected to hold themselves ready to contract for the work at the price submitted, there is any justice in the use and enforcement of the clause, "the owner reserves the right to reject any or all bids."

A BENCH HINT.—Ever since Joseph the carpenter plied his trade, the custom has been in trying-up or squaring over stuff, to place the try-square with its head on the vertical side, and the blade on the top, and then stoop down to look under the blade. This is a back-breaking and unnecessary procedure, requiring the removal of the plane from the stuff each time the square is applied. Instead of this, the square should be held the other way, and the head placed on the top of the stuff with the blade projecting down along the vertical side. A little practice causes one to grasp the square so the head will settle or balance on the edge of a board half an inch thick. The difference is, that the workman stands erect, does not stoop at all; the square can be placed in front of, or behind the plane, without removing it from the piece, but most important of all, that the shape of the wood is much better shown. Suppose, for example, one is jointing a board and using a try-square with a blade six inches long. If the square is applied in the usual way the "sight," even after stooping, is for a width of only one inch. If the blade is turned downward and the head on the top, then the "sight" is the whole length of the blade, or for a width of six inches. Even this is not all. If the face of the board is concave or convex, which is common, then the edge can be squared over on a "general average" of the face, which is impossible when using a square in the usual way. We have practiced the method for years and taught many others

who, as soon as they caught the idea, would at once and forever quit stooping and squinting under a square blade. One day's practice renders it easy and familiar. We have a lot more of these bench hints, but will wait and see how this one is received before venturing upon another.—*Industry*, San Francisco.

### USEFUL HINTS.

In laying zinc avoid nails, and all contact with iron or lime. Allow sufficient play for contraction and expansion, and arrange the drips and falls so as to avoid the necessity of any soldering. It is best to consult a zinc worker when setting out roofs.

To prevent brass from tarnishing after it has been polished use a solution of clear shellac in ninety-five per cent. alcohol—a half ounce shellac to one pint alcohol. Cork tight in a clear bottle. Shake and set in a warm place for a few days. Decant the clear solution at the top for your lacquer. Use a camel's hair flat brush. Heat the brass-work to nearly the temperature of boiling water, in an oven or otherwise, and varnish quickly, going only once over the work; put the work back in the oven for a few minutes to melt and make the lacquer clear.

From a number of careful tests lately made to ascertain the precise strength of anchor bolts set in Portland cement in the ordinary way, the fact appeared that the joint was really stronger than the stone. In this demonstration, two-inch iron rods were set into the stones some 1 1/2 inches, and then subjected to the test. The first rod had a screw thread to improve the grip of the cement, and the cement began to yield at a load of 32,000 pounds, the breaking of the stone taking place at 50,000 pounds. With a plain, smooth rod, it was found that the cement began to yield at a load of 34,000 pounds, but the rock broke at 67,000 pounds.

An easy way to compare metrical measurements with those given in feet and inches, is to consider one meter as equal to 40" (in reality it is 39.37). This is sufficiently close for comparison, and then a decimeter which is .1 of a meter would be about 4"; a centimeter, or .01 of a meter would be .4 of an inch very nearly; and a millimetre would be .04 or 1-25 of an inch. These approximations are as close as can conveniently be made without going too far into decimals, and as the difference between one meter and 40" is less than .63 of an inch, it will be seen that for purposes of comparison these values approximate very closely.

The following process is noted from France for hardening plaster, so that it may be used as flooring, as wood and tile are at present. About six parts of good quality plaster are intimately mixed with one part of freshly-slaked white lime finely sifted. This mixture is then laid down as quickly as possible, care being taken that the trowel is not used on it for too long a time. The floor should then be allowed to become very dry, and afterwards be thoroughly saturated with sulphate of iron or zinc—the iron giving the strongest surface, the resistance to breaking being twenty times the strength of ordinary plaster. With sulphate of zinc the floor remains white, but when iron is used it becomes the color of rusted iron; but if linseed oil, boiled with litharge, be applied to the surface, it becomes of a beautiful mahogany color. Especially is this the case if a coat of copal varnish is added.