

to noon of 6th inst. Information on application to Dr. McMaster, at the Technical School.—Excavating has been commenced for new buildings on the south side of College ave., adjoining the Bishop Strachan school.—The city engineer has recommended a scoria block pavement for the track allowance on Sherbourne street, where the street railway tracks are being extended to join the car shops. He also recommends the construction of the following works: Asphalt pavement on College street, from Yonge to Spadina avenue, cost \$57,410; macadam roadway on Coolmine road, from Dundas street to St. Anne's road, cost \$1,990; cedar block pavement on Huron street, from St. Patrick to Cecil, cost \$2,750; wood kerbing Adelaide street, both sides, from Spadina avenue to Bathurst street, cost \$1,190; sewer on Glen road, from Elm avenue to south drive, and easterly along south drive to Int F., cost \$1,133; cement concrete sidewalks on Spadina ave., east side, Grange avenue to St. Patrick street, cost \$938; Richmond street, south side, Bay to Sheppard, cost \$331; Richmond street, north side, from 141 feet west of Bay to York street, cost \$1,122; Wellington street, north side, from York to Simcoe, cost \$604; Wellington street, north side, from Bay to 81 feet east of York street, cost \$1,416; Peter street, east side, from 144 feet south of Adelaide to King street, cost \$266. Brick pavements—Bathurst street, from point 16 feet west of the bridge to a point 439 feet south, cost \$5,700; Ossington place, from Ossington avenue to 260 feet west, with four-foot brick sidewalk on each side, cost \$1,535.—The council has given notice of its intention to construct concrete sidewalks on the following streets: North side of Charles street, Yonge to Church, cost \$1,840; north side Harbord street, Robert to Borden, cost \$1,630, south side Melbourne avenue, Dufferin street to Cowan avenue, cost \$2,044; east side McCaul street, Caer Howell to College, cost \$1,353; west side McCaul street, Grange road to St. Patrick street, cost \$768, north side Howard street, Glen road to Sherbourne street, cost \$387.—Building permits have been granted as follows: Bell Telephone Co., two-storey brick office building, on Hayden street, near Yonge, cost \$12,000, Ald. Crane, pair of brick residences on Spadina road, near Bernard avenue, cost \$6,000; J. B. Smith & Sons, two-storey brick stable and lumber shed on Wellington avenue, cost \$3,000, John Fuller, two-storey brick dwelling, 22 Fuller street, cost \$5,500; Toronto Plate Glass Company, four-storey brick addition to warehouse, 133 Victoria street, cost \$12,000.

FIRES.

Saw and shingle mill at Kilworthy, Ont., owned by Jas. Hart, Orillia.—Building of the Smith Wool Stock Co., 219 Front street east, Toronto, partially destroyed; loss on building and machinery, \$5,000.—Flour mill of the Cornwall Milling Co. at Cornwall, Ont., totally destroyed; loss \$18,000, insurance \$12,000.—Steamer Persia, burned at Toronto last week; loss \$18,000, insurance \$10,000.

CONTRACTS AWARDED.

MANITOWANING, ONT.—Mr. Button has let the contract for building his new broom handle factory.

SAULT STE. MARIE, ONT.—The contract for deepening the canal has been let to Jas. Whelan, of Port Arthur.

TORONTO, ONT.—J. F. Brown, architect, has let the contract for erection of a cottage on the island to T. P. Whitlan.

RAT PORTAGE, ONT.—The Gardiner, Rice, & McLeod Co. have awarded a contract to Stevens & McKinnon for extensive alterations to their store.

GRAND MERE, QUE.—Perrault & Co., of Deschambault, have been given the contract to construct water-works and drainage works for the municipality.

ST. JOHN, N. B.—G. E. Fairweather, architect, has accepted the following tenders for a residence to be built on Queen street for Mrs. A. L. Holman. Masonry, Corbett Bros.; carpenter work, A. L. Dodge.

AMHERST, N.S.—Rhodes, Curry & Co. have received a repeat order from the Dominion Coal Co. to build 600 tenement houses, the greater number of them at Glace Bay and Bridgeport. About 4,000,000 feet of lumber will be required in their construction.

YARMOUTH, N.S.—Kent & Wyman have secured contract from the Halifax & Yarmouth Railway Co. to build a freight extension to the station at Upper Woods Harbor; also combination flag stations and freight sheds at Lower Shag Harbor and Atwood's Brook.

LONDON, ONT.—Moore & Henry, architects, have accepted the following tenders for J. J. A. Hunt's residence on Harton street: Brickwork, Joshua Garratt; carpentry, Tambling & Jones.—W. H. Matthews, architect, has accepted the following tenders for a three storey residence for G. Matheson: Brickwork, Moran & Rudge; carpentry, R. Gilmour. For Mr. Boomer's residence contracts have been let as follows: Mason and brickwork, Moran & Rudge; carpentry, J. A. Matthews; plastering, R. Gas; galvanized iron work, Wm. Stevely; heating, Wm. Wyatt.

ARTIFICIAL DAYLIGHT.

A paper by Mr. A. Duffon, M. A., and Mr. W. M. Gardner was read at Bradford on "The Production of an Artificial Light of the Same Character as Daylight".—

It is a matter of common experience that many colours alter in appearance when seen by an artificial light. The extent to which colours may vary under different illumination is perhaps not commonly known, but is well illustrated by the range of dyed cloths exhibited. Amongst other patterns, one which is green by daylight becomes red brown by gaslight; a violet changes to purple; a grey to heliotrope; a shade of tan to a brick red. Particularly striking is a pattern woven from specially dyed yarns, which appears a uniform green colour by daylight, but which is figured by gaslight. Seen by the light of the electric arc, the patterns show similar but less marked changes.

It may be of interest to indicate briefly how such peculiar changes of colour arise. The colour of a body depends, in the first place, on the nature of the incident light. In monochromatic red light a red appears much the same as in daylight, but a yellow changes to red, a green is almost black, while blues and violets become red.

Gaslight shows a continuous spectrum from red to violet, but compared to daylight is of a strong orange colour due to an excess of rays in the red, orange and yellow. It does not, however, necessarily result that all colours appear redder by gaslight. It is, indeed, well known that the majority of colors change little by gaslight. This is due to the adaptability of the eye; if the light becomes redder the eye becomes less sensitive to red, if the light is deficient in green the eye becomes more sensitive to green. Persons

working by gaslight soon cease to notice its intense orange colour. It results that a gray produced by mixture of black and white appears grey under any illumination, and simple colours, such as reds, oranges and some greens giving light confined practically to one part of the spectrum, undergo little change.

Generally, however, the colour of a body is due to a mixture of light from different parts of the spectrum. All violet colours are transparent, not only for violet, but also for blue and red light; all blues transmit not only blue, violet and green light, but also more or less red. Consequently, whenever a blue or violet is used in the production of what is called by artists a "tertiary" colour, the general result is a colour having bright bands in different parts of the spectrum. A mixture of red, blue and yellow to produce a neutral grey will show bright bands in the red and green—complementary colours resulting in a proportion of white light. According to the exact position and intensity of these bands the grey will become redder or greener, or may even remain unchanged by gaslight.

JOINERY WORK.

A very good piece of joinery work is making a good drawing-board. The following is an excellent method of fitting up a standing drawing-board: The board is 6 ft. by 4 ft., and when standing at an angle of thirty degrees from a vertical plane the lower edge is 24 ins. from the floor. The straightedge is carried by two drums. These drums are keyed 5-16 in., shaft running the full length of the board. At midway of the shaft is another drum of the same diameter, which is wrapped in the opposite direction, and to which is attached the counterweight which balances the straight-edge. The carrier cords are of braided linen, are simply laced to the straight-edge. Each of the little holes shown at the ends of the straight-edge has in it a brass bushing, rounded at the ends to make the cord run through easily. At each end of straight-edge is a cleat 3 x 8 ins. thick, lapping the ends of the board to prevent any side movement.

BUSINESS NOTES.

Alex. Desmarteau has been appointed curator of the estate of P. Boileau & Freres, Isle Bizard, Que.

H. C. Kitchen & Company, plumbers and tinsmiths, Fredericton, N. B., have sold out to Edward Hurley and John McGoldrick.

CENTRAL CANADA LOAN AND SAVINGS COMPANY

Cor. King and Victoria Sts., TORONTO

Highest Market Prices paid for—

Municipal Debentures

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