Continued from page 8.

cribe a particular species and give its name.

6. Describe several methods employed in the multiplication of plants. Which is more generally employed. Mention several plants which may be propagated by each of the methods respectively.

7. Contrast a fish with a bird, or a beetle with a star-fish, as to structure and habits.

CLASS I.   Time, 1 hr. 45 min.

NOTE.—The first four questions and two of the other make a full paper. The explanation when asked for, will be considered to be of as much or greater value than the operation. The unitary method will be held to include both explanation and operation. Exhibit the work in every case.

1. The bank discount on a note for $99, drawn on July 5th at 3 months, and discounted immediately, is $2.09. Find the rate of discount. Explain the operation.

2. On April 28, 1891, John Brown gave Robert White his note for $64.50, payable in 6 months, with interest from date at 5 per cent. When the note became due, Brown paid one half of the principal. On march 3, 1892, he paid the balance due including interest. How much did he pay!

3. Write in proper form the note referred to in the preceding question. Exhibit the entry which should have been made in Brown's day book when the note was given, and in White's ledger when the balance remaining due was paid!

4. Subtract from twenty-five thousandths its fiftieth part; divide the remainder by 200; divide one ten-thousandth by the resulting decimal; and multiply the result by the hundredth part of itself.

5. What will it cost to carpet a room 10 metres long and 6.5 metres wide, with carpet 30 inches wide at $2.50 per yard!

6. Find the difference between the square root of .4 and the cube root of 2989584, true to 3 decimal places.

7. Bought a house for $160. What shall I ask for it so that, should I be compelled to fall 20 per cent. in my price, I shall still gain 5 per cent, on the cost? Explain the operation.

Geometry, Book 1.

CLASSES I AND II.   Time, 1 hr. 30 min

NOTE.—Customary abbreviations may be used. Give references and authorities wherever you can—credit will be given. Candidates for Class II will answer the first five questions only. Those working for Class I will take the sixth instead of the third or fourth.

1. Demonstrate Prop II—(Problem : From a given point to draw a straight line equal to a given straight line) using the following construction : Let the given line be drawn upright and about an inch long; and let the given point be about an inch and a half to the right of the upper extremity.

2. Demonstrate Prop XIII—If one straight line meet another so as to form two adjacent angles, these must be either each of them a right angle or together equal to two right angles.

3. Prove that equal triangles upon the same base, and upon the same side of it are between the same parallels.

4. State or enunciate all the propositions (seven in number) in which the equality of two triangles is proved.

5. Define clearly the following terms : The diameter of a circle. The vertex of a triangle. The supplement of an angle. The converse of a proposition. The magnitude of an angle.

6. Demonstrate Prop XLIV—Problem : To a given straight line to apply a parallelogram, which shall be equal to a given triangle, and shall have one of its angles equal to a given angle)—including in your construction the process of making a parallelogram equal to the given triangle, but proving only what belongs properly to the proposition assigned.

Arithmetic.

CLASS II.   Time, 1 hr. 45 min.

NOTE.—The first four questions and two of the others make a full paper. The explanation, when asked for, will be considered to be of as much or greater value than the operation. The unitary method will be held to include both explanation and operation. Exhibit the work in every case.

1. On April 28, 1891, John Brown gave Robert White his note for $64.50, payable in 6 months, with interest from date at 5 per cent. When the note became due, Brown paid one half of the principal only. On March 3, 1892, he paid the balance due including interest. How much did he pay?

2. Write in proper from the note referred to in the preceding question. Show the entry which should have been made in Brown's day book when the note was given, and in White's ledger when the balance remaining due was paid?

3. Subtract from twenty-five thousands its fiftieth part; divide the remainder by 200; divide one ten-thousandth by the resulting quotient; and multiply the result by the hundredth part of itself.

4. Divide 5 per cent. of 37 lbs. 8 oz. avoir. by 225 per cent. of 2. Carry the quotient to 4 decimal places and explain clearly how you determined place of the point (in the quotient.)

5. How many yards of paper, 30 inches wide, will it take to cover the walls of a room 18 ft. long, 12 ft. 6 in. wide and 12 ft. high, making allowance for 2 doors, each 7 ft. by 3 ft. 6 in., and 3 windows, each 6 ft. by 3 ft.?

6. Find the length, in feet and inches, of one side of a square field containing one acre.

7. Borrow $50 for 9 months, and at the end of that time paid as principal and interest $53.75. Find the rate per cent. of interest. Explain the operation.

Geography.

CLASS II.   Time, 1 hr. 30 min.

I. Draw from memory an outline map of Ontario, marking lakes and rivers, important towns, with notes on each at the foot of the map.

II. Explain the following terms, viz.: First Meridian. Equinox. Zone. Axis of the Earth. Eclipse of the Moon. Pole Star.

III. Give a general description of the physical geography of Europe.

IV. With what foreign countries does Canada chiefly trade, and what are the staple articles of exchange between them.

V. Where and for what noted are the following, viz.; Havana, Minneapolis, Coruna, Natal, Auckland, Benares, Amsterdam, Moscow, Nanaimo, Naples, Cambridge, Albany, Damascus, Richmond and Port Said.

Natural History.

CLASSES II AND III.   Time, 1 hr. 30 min.

NOTE—Candidates for Class II will answer six questions; those for Class III will answer five.

1. Describe three minerals which occur in the neighborhood of your home, and enumerate the properties by which you distinguish each from the others.

2. What does the formation of colored films on the surface of a spring u nally indicate? Tell what you know of the nature and origin of the reddish sediment deposited by the water which flows from such springs.

3. Account for the formati n of sandstone. Of what mineral does it, in general, mainly consist? Give the principal properties of that mineral.

4. What features of stem, leaf, flower and embryo distinguish endogens from exogens? Mention two cultivated plants of each class which illustrate these differences.

5. Write a full description, including root, stem, leaf, flower, fruit a d embryo, of a native plant belonging to the maple family or the pine family. Describe a particular species and give its name.

6. Account for the sweetish taste of a potato when sprouting. Give other examples of similar changes.

7. Enumerate several of the means provided by nature for the dispersion of seeds, and give one or more illustrations of each furnished by native plants.

Arithmetic.

CLASS III.   Time, 1 hr, 45 min.

1. Multiply 12½ per cent. of twenty-four tenths of thousands by 5000, divide the result by five-tenths, and subtract one and six thousand and twenty-five tenths of thousandths from the quotient.

2. William Johnson buys, to-day, from Thomas Jenkins, 12 lb. of sugar at 8½ cents, 11 lbs. of rice at 4½ cents, 2 gals of syrup at 75 cents, 2 bushels and one l peck of potatoes at 50 cents per bushel. Make out a bill for the above goods, and receipt it.

3. An imperial bushel contains 2218.192 cubic inches. How many bushels will a bin hold which is 16 ft. long 5ft. wide, and 4ft. deep.

4. Add together five decimals, each containing from three to five significant figures, whose sum shall be exactly one.

5. Find a decimal whose value is 1-5 of that of the fraction 3-16, and divide that decimal by the twenty-fifth part of five thousandths. Work by decimals, and explain the method by which you determined the place of the point in the quotient.

6. The divisor is ⅜, the quotient is 8, and the remainder 11-12. Find the dividend:

7. What will 12 5-16 bushels of wheat cost at 36 cents per peck? Explain the operation.

PICNIC PARTIES.

Now that the time for picnics is drawing near and people want to buy Cheap

REFRESHMENTS,

It would be to your advantage to give us a call and hear our Special Rates on Goods, including confectionery of every desciption, Bananas, Nuts of all kinds, Prize Packages. Also a fine line of cigars

ICE CREAM,

Manufactured with every flavor, and sold in any quantity. Give us a call.

GEO F WILKES

THE CITY COUNCIL.

The Acceptance of Mr. Calkin's Electric Light Tender Cancelled.

At the regular meeting of the city council Tuesday evening the absentees were Mayor Beckwith and Ald. Block. In the absence of the Mayor, Ald. Vandine occupied the chair. After the reading of the minutes of last meeting by city clerk Beckwith, and the passing of several bills, Ald. Duffie moved that cheques for a quarties salary issue in favor of the police.—Carried.

Ald. Moore moved that cheques for a quarter's salary issue in favor of Superintendent Burchill and the engineers of the water works.—Carried.

Ald. Everett submitted the following report of the assessment and appeals committee

Your committee have had under consideration the following appeals and petitions, viz; The Fredericton Park Association, the New Brunswick Telephone Co., Robt. Moorecraft, Wm. Rowe, Mary McCaffrey. The Scottish Union and national Fire Ins. Co. Jas. Driscoll and F. Marvin Hartt. and beg to make the following recommendations.

1.—In the matter of the petition of the Scottish Union etc. Fire In's company they recommend that the prayer of the petition be complied with so far as to reduce the income to be assessed to the sum of $300, and the assessment amended accordingly.

2.—That the petition of James Driscoll, butcher of this city, asking to be relieved of taxes in this city on the ground that he pays taxes in the parish of Kingsclear, be not complied with.

3.—That the prayer of the petition of F. Marvin Hartt be complied with and he be relieved from payment of taxes on the $400 personal property assessed against him and his assessmeet amended accordingly.

4.—That the prayer of the petition of Miss Mary McCaffrey be not complied with.

5.—That the prayer of the several petitions of Wm. Rowe and Robt. Morecraft be complied with, and they be severally relieved from payment of their respective poll taxes on paying their property assessment promptly.

6.—That the prayer of the petition of the Fredericton Park Association be complied with and their real estate be reduced to the value of $400, and their assessment amended accordingly.

8.—Your committee ask farther time to obtain more information before reporting on the petition of the New Brunswick Telephone company.—Adopted.

On motion of Ald. Macnutt the report f the fire committee recommending that they be authorized to purchase four hundred feet of best canvas hose at the same terms as the last, and that the city clerk be directed to collect the amounts due for hose sold to the late firm of Brown & Palmer and to the Fredericton Curling Club, was adopted

Ald. Farrell moved that the petition of Mrs. Stevens asking to be relieved from taxation be referred to the assessment and appeals committee.—Carried.

Ald. Macnutt moved that the council provide free water to the exhibition committee during exhibition week.—Carried.

Ald. Macpherson chairman of the road committee submitted a report, which was adopted, recommending the laying of about 10,0g0 square yards of asphalt sidewalks, to be laid upon the following streets.

KING'S WARD.

From the corner near the Canada Eastern Railway around Cathedral up to the corner of St. John and Queen streets and the residence occupied by Mr. Wetmore, and also following the Cathedral fence up King street to the corner of St. John street, opposite the residence of E. B. Winslow,

QUEEN'S WARD.

On Church street from King street to Brunswick on upper side. On St. John street, west, from George to Charlotte street. On Brunswick street from St John down to Church street, north side: On Regent street from George to Charlotte street, on lower side. On Regent street, from George to Charlotte street, on lower side. The south side of George street from Church to St. John is to be prepared for asphalt.

CARLETON WARD.

On York street from King to George on lower side. On York from Charlotte to Needham on lower side. On Brunswick from York to Regent east side. King street from Carleton to Regent to prepare for asphalt.

ST. ANN'S WARD.

On York street from Brunswick to George, upper side. On Westmorland street from Brunswick to Charlotte, upper side. On King street from Westmorland to Northumberland, if possible. On Queen street from Westmorland to Northumberland; where feasible.

WELLINGTON WARD.

On Northumberland street from Queen to Charlotte on upper side. On King street from Northumberland to Smythe; north side. On Brunswick street from Northumberland to Smythe, north side. On Charlotte street from Northumberland to Smythe, north side.

Ald. Gilman moved that the asphalt to be laid from Northumberland to Westmorland on King street, be put down between the same streets on Brunswick instead — Carried.

Ald. Duffie thought King's ward was

receiving a very small portion, and moved that the road committee be instructed to lay an asphalt walk across the green on unbury street from the railway crossing to Charlotte.—Carried.

Ald. Moore moved seconded by Ald. Macnutt, that in addition tothat to be laid in Queens, the committee be directed to finish the sidewalk on the west side of Church between Brunswick and George, and also the sidewalk on George from St. John to Church.—Carried.

These additional walks will amount to about 3,000 yards making a total of 13,000 and as we have been informed there is only enough material to do 9,000 yards, there will probably be a warm discussion at the next meeting as to which ward will suffer.

Ald. Gilman presented a petition signed by a number of ratepayers, praying the council to pay John Palmer, tanner, damages to the amount of $1,100 to remove his tannery from Westmorland street or buy the whole lot out at $1,600, and moved that the petition be complied with.

Ald. Moore moved as an amendment that as the matter would come before the Board of Health for consideration the Thursday evening, the question be laid over until after the meeting of the board. —Amendment carried.

Ald. Gilman asked for information concerning the lighting of the streets.

Ald. Farrell, as chairman of the light committee, replied that he had nothing definite to report. The committee could obtain no information from Mr. Calkin as to what he intended to do. He proposed the council dispose of Mr. Calkin.

Ald. Macpherson handed the chairman a telegram received that morning from Mr. Calkin, stating the Col. Rodgers, of the Brush Swan Co. would be in St. John sometime this week and would probably visit Fredericton and settle the matter. He (Macpherson) felt disposed to wait until they saw Col. Rodgers before disposing of Mr. Calkin.

Ald. Duffie said the proper thing to do would be to "pitch the unsigned contract in the fire." Mr. Calkin was only making a fool of the council and never intended carrying out his contract.

Ald. Gilman moved a resolution, seconded by Ald. Duffie, rescinding the council's resolution accepting Mr. Calkin's tender, and ordering a discontinuance of further negotiations with him.

Ald. Farrell expressed himself in favor of the resolution. He said Mr. Calkin had treated both him and every member of the board as if they were "asses with ears as long as your arm."

Ald. Walker, evidently thinking he was particularly referred to, wished Ald. Farrell to distinctly understand that he was not any more of an ass than that gentleman, and his ears were not any longer.

Ald. Farrell—I did not insinuate that any alderman at the board was an ass.

Ald. Walker—I know you meant me, and I take no such insinuations from you or any man. The map of Ireland is stamp d just as distinctly upon your face and ears as it is upon mine, and if the alderman had followed me.

Ald. Farrell—I think too much of my time.

Ald. Walker—You can't follow me. You can't stick your nose in where I travel.

At this point Alds Macpherson and Farrel got into a warm discussion over personal matters, which although not just parliamentary afforded considerable amusement for the spectators.

Ald. Everett felt sorry the discussion had taken such a turn. He himself was in favor of the resolution.

The vote being taken the names were called as follows :

For the resolution—Alds Gilman, Duffie, Farrell, Macnutt, Moore and Everett.

Against the resolution—A ds Macpherson and Walker.

Ald Farrell moved that the light committee be authorized to negotiate with the Fredericton Electric Light and Gas Co., with regard to lighting the streets either with electric light or gas, the contract for lighting the city with gas having expired on July 30th. The Gas Co., he said were not bound to furnish light at the old rate, and the way the matter stood at present, their being no written contract, the company can light half the lights and let the balance remain in the dark if they so wish d. The motion carried. The council adjourned.