

TEACHER'S COLUMN.

Devoted to the Interests of the Provincial Teachers.

In Which We Publish the Entrance, Monthly and Final Examination Papers Used in the Normal School.

This Column is Open for Communications, and Will Contain Articles of Special Interest to Every Teacher.—Teachers wishing for information on any school question can obtain the same by enquiring through this Column.

NORMAL SCHOOL.

The Final Examination Papers—Continued from Last Issue.

General Chemistry.

GRAMMAR SCHOOL. Time, 1 hr. 30 min.

1. Explain the difference between elements and compounds. What principles govern the classification of elements? The classification of compounds? Name five elements noticeable for their abundance, and five for their rarity.

2. Compare the combustion of the following substances: Mg., S., H., P., Fe. Explain in each case the relation of the combustion to the heat and light produced.

3. How would you proceed to get N from air? H from water? Cl from common salt? As from AsH₃? Ether from alcohol? Iron from Hematite?

4. What is meant in chemistry by the terms: Reduction, Valency, Isomers, Homologous Series, Negative Radicals, Compound Radicals. Give illustrations in each case.

5. What is the relation of ozone to oxygen? How can the relation be shown? How is it accounted for? What is the part played by ozone in nature?

6. Explain why ammonia is formed in gas works. What is ammonium? Give symbols for its chloride, sulphate and nitrate, respectively. If the latter be strongly heated what reaction results?

7. Give symbols for the following substances: Bleaching powder, saleratus baking soda, white lead, vinegar, epsom salts, fluor spar, plaster of Paris, gunpowder, black lead, soda water.

8. Enumerate, as far as you can, the useful products derived from the distillation of coal and coal tar, referring them to their proper chemical groups.

9. Where is cane sugar found in nature? How is it refined? Into what is it resolved by fermentation? Under what conditions does the latter process take place?

10. From what sources are the following substances derived: Roseine, soap, glass, carbolic acid, alum, phosphorus.

Note—Six questions make a full paper.

Plane and Solid Geometry.

GRAMMAR SCHOOL. Time, 1 hr. 30 min.

1. A ladder slips down between a vertical wall and a horizontal plane, what is the locus of its middle point?

2. Shew how to construct an angle equal to one-fifth of a right angle.

3. Why is the child's test for ascertaining angles are in proportion?

4. Prove that triangles on the same altitude are to one another as their bases in such a way as will make the proof an application of the test above mentioned.

5. Name the five regular Polyhedra and state how their solid angles are formed? Why can there not be more than five regular Polyhedra?

6. When is a plane perpendicular to a plane? If a straight line be at right angles to a plane, every plane which passes through it, must be at right angles to that plane.

7. If two planes, which cut one another, be each of them perpendicular to a third plane, their common section must be perpendicular to the same plane.

Algebra.

GRAMMAR SCHOOL. Time, 1 hr. 30 min.

1. If $ax+by+cz=0$ and $a^2x^2+b^2y^2+c^2z^2=0$

Prove $\frac{x}{bc-b^2c} = \frac{y}{ca-c^2a} = \frac{z}{ab-a^2b}$

2. Solve by any method $ax^2+by^2+cz^2=1$ $a^2x^2+b^2y^2+c^2z^2=1'$

3. Shew that $3\sqrt{3} = \sqrt{6561}$

4. Solve the equation $(x^2+5x)-2-8(x^2+5x)-84=0$

5. Solve $x^2+xy=15$ $xy-y^2=2$

6. The first term of an arithmetic progression is 4 and tenth term=22; find the common difference, and the sum of 20 terms.

7. Expand $(a+b)^n$ and from it derive the expansion of $1+(1-n)x$

8. Given $ax=1+x^2$ $bx=1+x^3$ find the value of $(ax+bx)$

History of Education—Teaching and School Management.

GRAMMAR SCHOOL CLASS. Time, 2 hrs.

I. Contrast the Greek and Roman systems of education.

II. Describe the representative school of the middle ages in respect to (a) subjects and methods of instruction, (b) discipline.

III. What is the debt which modern education owes to Bacon, Comenius, Rousseau, Pestalozzi, Froebel?

IV. Give a brief account of the educational philosophy of Herbart.

V. What do you regard as the aim of education (a) the intellectual, (b) the moral and ethical, and (c) the physical sides? In what ways do you propose to realize your ideal in each?

VI. What subjects of instruction do you regard as essential in a course of instruction for grammar schools, and why?

VII. How would you teach any one of the following subjects, viz.: English composition, algebra, botany, a Greek author—Homer, for instance?

VIII. On what motives and influences would you chiefly rely for the discipline of a superior or grammar school?

IX. How would you provide, in a grammar school, for the profitable employment of those pupils who do not study the classics, during the time devoted to Latin and Greek?

X. On what general principles should a time table for a grammar school be drawn up? N. B.—Questions III. and IV.—V. and VI are alternates.

English Literature.

GRAMMAR SCHOOL AND I. Time, 1 hr.

1. Where did Tennyson get the materials for the composition of his Idylls? What was the object of these poems? Give the date of their publication.

2. In what connection do the following occur? Name the speaker:—
a. "I will not fight my way with gilded arms. All shall be iron."
b. "Tho' men may bicker with the things they love. They would not make them laughable in all eyes. Not while they loved them."
c. "I love that beauty should go beautifully."
d. "The world will not believe a man repents. And this wise world of ours is mainly right."
e. "I have griefs enough: Pray you be gentle, pray you let me be."

3. Explain briefly the meaning of: "Topping over all antagonism"; "debating his command of silence given"; "the pilot star of my lone life"; "the vicious quitch"; "angrier appetite"; "take a horse and arms for gerdon."

4. When was "Locksley Hall" originally published? Indicate briefly the drift and purpose of this poem.

5. Quote the passage from "Locksley Hall" beginning, "For I dip into the future," and ending "Federation of the world."

6. Express briefly in your own language the thought contained in the following extracts:—
a. "But the jingling of the guinea helps the hurt that honor feels, and the nations do but murmur, snarling at each other's heels."
b. "Yet I doubt not thro' the ages one increasing purpose runs, and the thoughts of men are widen'd with the process of the suns."
c. "Thro' the shadow of the globe we sweep into the younger day: Better fifty years of Europe than a cycle of Cathay."
d. "Step by step we gain'd a freedom known to Europe, known to all; step by step we rose to greatness,—thro' the toughnesters we may fall."

7. Discuss briefly the leading qualities of Tennyson's style. Quote from any of his poems lines in which the sound is made to be an echo to the sense.

N. B.—Candidates for Grammar School License will substitute Question 7 for Question 6; those for 1st class will work the first six questions only.

School System.

GRAMMAR SCHOOL AND I. Time, 1 hr.

1. In regard to the support of schools show (a) the basis on which Provincial Grants are made, (b) how the county fund is raised and distributed, (c) how the District assessment is levied.

2. What are the duties and powers of Trustees in respect to school property.

3. How is the school property of a school (a) in case of the death of a Trustee, (b) when a Trustee declines or neglects to discharge his duties.

4. What are the provisions of the law to establish a school in a District the rate-payers of which refuse to vote sufficient money for the purpose?

5. What are the general duties and powers of the Board of Education?

6. In what respect do General meetings of rate-payers differ from Special meetings?

Animal and Vegetable Physiology.

GRAMMAR SCHOOL. Time, 1 hr. 30 min.

1. Of what use are bones? How many are there in the body? Classify them, and show by example, how those of each class are specially adapted to their proper use.

2. Explain the nature and use of cartilage, marrow, periosteum tendons.

3. Explain the nature of muscular tissue. How are muscles classified? Why do blood vessels and nerves accompany muscles?

4. Describe the skin and name its different layers. What is the function of each? What are the appendages of the skin? What connection has the condition of the skin with the general health? Why is bathing important to health?

5. Relate the differences of structure between endogenous and exogenous stems. Describe, with examples, their respective modes of growth.

6. What is the food of plants? How do they obtain it? and how do they make use of it? How may it be stored for future use?

7. Distinguished (1) in the leaf and (2) in the blossom, essential from non-essential parts, giving reasons.

8. Explain the use of the words inflorescence, axil, placenta, pappus, bract, catkin, drupe, compound ovary, involucre.

9. In what several ways may plants climb? Which method would be in your opinion, be most advantageous to the plant?

10. Explain the nature of a pea blossom; of an apple; of a strawberry; of an onion bulb; of a potato tuber; of a pine cone.

NOTE.—Six questions, equally divided between vegetable and animal physiology, constitute a full paper.

Practical Mathematics.

CLASS I. Time 1 hr.

1. The tangent of an angle is $\frac{2}{3}$ find its sine, Cosine, secant, cosecant and cotangent.

2. If we take for our angular unit that angle at the centre whose arc is equal in length to the radius how would the value of the following angles be expressed: 180° , $22\frac{1}{2}^\circ$, 1° , $60'$, A degree.

3. Given two sides and the included angle of a plane triangle shew how to find the remaining parts.

4. Find the area of a regular polygon of n sides each side being a .

5. A field A B C D E F is formed by

x straight sides. The distance A E=9.25 chains and the perpendicular on A E from F=6.40 chains. The distance B E=13.75 chains and the perpendicular on B E from D=7 chains. The distance D E=10 chains and the perpendicular on D E from C=4 chains. Also the perpendicular on B E from A=4.75 chains. Required the area of the field in acres and square poles.

Natural Philosophy and Physics.

I. Time, 1 hr.

Six questions make a full paper.

1. How is the effect of a force in a direction different from its own estimated? Find the effect of a force of 23 lbs. in a direction making with the line of the force an angle = 60 degrees. If the angle becomes 90 degrees what do you obtain for the effect. Define component and resultant forces. Show how to resolve a force into two components at right angles to each other.

2. The resultant of two forces acting at right angles is double the lesser of the components; find the angles it makes with the components.

3. A body is supported on a smooth inclined plane by a force parallel to the plane. Shew that the power is to the resistance as the height of the plane is to its length.

4. A uniform bar, 4 ft. long weighs 10 lbs, and weights of 30 lbs. and 40 lbs. are appended to its two extremities, where must the fulcrum be placed to produce equilibrium?

5. Find the height to which a body projected vertically with a velocity of 80 feet per second will ascend.

6. Explain the action of the siphon. Would it act in a vacuum? Why?

7. Why is the bore of the tube of a thermometer so small? Why need not the bore of a barometer tube be as small?

8. (a) Explain the statement that electricity only attracts electrified bodies, (b) how do you account for thunder and lightning?

A Simple Cure for Bad Breath.

In our variable climate thousands suffer from Catarrh in a mild or more acute form. The offensive breath, headache and nausea produced by this complaint are only a few of its evil results. Hawker's Catarrh Cure is a perfect and positive cure, relieving all headache and nausea and making the breath sweet and pure. Price only 25 cents. Sold everywhere.

A DOUBLE TRAGEDY.

Killed His Child and Then Threw Himself Before a Train.

ROCHESTER, N.Y., June 24.—Bartholomew J. Doran, a lightweight pugilist of note, who came to this city a week ago accompanied by his wife and a year and a half old boy, suddenly disappeared with his wife yesterday morning and their child, which was apparently in good health, was found before was found dead in a few hours.

After being occupied by the police for several hours they engaged a furnished car and the child appeared to be in perfect health and was seen by Mrs. Hauser, the boarding house keeper, playing about the house. At six o'clock yesterday morning Mrs. Doran came down stairs dressed for the street and after lingering about for a few minutes was joined by her husband and they left the house without saying anything as to when they would be back or where they were going. When at eight o'clock they did not return, Mrs. Hauser became alarmed about the child and instituted an investigation. She found the door of the room used by the Dorans locked. After some difficulty she succeeded in opening the door and was horrified to find the dead body of the infant lying on the top of a trunk. In the room there was every evidence that the occupants had indulged in a night of carousal and had made a hasty departure. Cards and beer bottles were strewn around, and the room was otherwise in an untidy condition. The coroner Mr. Tait, assisted by Dr. Herkle, made an autopsy on the child's body and were satisfied that death did not result from natural causes. Several bad bruises were found on the front and back of the child's head.

Doran's decapitated body was found shortly after four o'clock yesterday afternoon by the tracks of the Rome, Watertown and Ogdensburg railroad, one mile east of Windsor Beach. The woman was found walking on the track a little west of where the body of Doran lay, and was placed under arrest. She told the coroner that her husband had killed the child the previous night and threw himself in front of a train yesterday afternoon with the above result.

Remember there is a

FISH MARKET

—ON—

Regent Street.

Telephone Connection No.91.

Fresh Fish at All times. Next Door you can get P. E. I. Oysters and Bay de Vin Oysters served in the Latest Styles.

J H. Parsons.

NASAL BALM

NEVER FAILS

It is a certain and speedy cure for Cold in the Head and Catarrh in all its stages.

SOOTHING, CLEANSING, HEALING.

Instant Relief, Permanent Cure, Failure Impossible.

Many excellent diseases are simply symptoms of Catarrh, such as head-ache, partial deafness, losing sense of smell, foul breath, hoarseness and spitting, nausea, general feeling of debility, etc. If you are troubled with any of these or kindred symptoms, you have Catarrh, and should lose no time in procuring a bottle of Nasal Balm. Be warned in time, neglected cold in head results in Catarrh, followed by consumption and death. Nasal Balm is sold by all druggists, or will be sent, post paid, on receipt of price (50 cents and \$1.00) by addressing FULFORD & CO., Brockville, Ont.

CURES GOLD IN HEAD AND CATARRH

PHENIX LIVERY STABLE

(Lately the Geo. I. Gunter Stable.)

Opp. A. F. Randolph & Sons.

CHAS. S. ORR. — Manager

FIRST-CLASS TURNOUTS A SPECIALTY.

Prompt and Courteous treatment to all Patrons.

May 13th, '93.—1y.

1893. 893.

F W WINTERS

House, Sign and Ornamental PAINTER

—AND—

GRAINER.

Graining done in Walnut, Cherry, Mahogany, Oak, Satin Wood, Hungarian Ash, Rose Wood, etc.

Doors Grained Price \$1.50 to \$2.50 per Side

All work Guaranteed First-Class. Best of Material used. Defy Competition.

F. W. WINTERS.

May, 12th '93.—1y. 68 Brunswick St.

- ICE -

CREAM.

Now the summer has begun and the weather is getting warm we are once more to the front with delicious Ice Cream and Ice Cream Soda, which we will manufacture with all flavors, and served up in the neatest style with sponge cake.

We have also received another fine assortment of English and French Confectionery

And a Full Line of

Bananas, Oranges, Lemons, Pineapples, Walnuts, Filberts,

A fine line of Cigars, Cigarettes, and Fine Cut Tobacco.

Hot Peanuts always on hand.

Give us a call.

GEO F WILKES

Confectioner

WE MAKE MEN

Young, middle-aged or old men suffering from the effects of follies and excesses, restored to perfect health, manhood and vigor.

OLD DR. GORDON'S REMEDY FOR MEN CREATES New Nerve Force and Powerful Manhood.

Cures Lost Power, Nervous Debility, Night Losses, Diseases caused by Abuse, Over Work, Indiscretion, Tobacco, Opium or Stimulants, Lack of Energy, Lost Memory, Headache, Wakefulness, Gout and Venereal.

A Cure is Guaranteed!

To every one using this Remedy according to directions, or money cheerfully and conscientiously refunded. PRICE \$1.00, 6 PACKAGES \$5.00.

Sent by mail to any part in U.S. or Canada, securely sealed, free from duty or inspection.

Write to-day for our

BOOK STARTLING FACTS FOR MEN ONLY

TELLS YOU HOW TO GET WELL & STAY WELL FREE

Address or call on QUEEN MEDICINE CO., NEW YORK LIFE BUILDING, Montreal, Can.

ADVERTISE IN THIS PAPER.

SPRING MEDICINES !

Hood's Sarsaparilla.
Ayer's Sarsaparilla.
Radway's Sarsaparilla.
Our Own Sarsaparilla.

W. H. CARTEN,

Druggist and Apothecary. Cor Queen and Carleton Sts.

Sweet Music

for the Economical.

MONEY SAVED

by buying from the elegant stock of New Goods just opened at the

New Jewelry Store,
220 Queen St. Opp. Stone Barracks.

R. BLACKMER,

Watchmaker and Jeweler.



THE "GLOBE"

JOB PRINTING

DEPARTMENT.

We have in Stock a Complete Line of

Bill Heads,
Enter Heads,
Statements,
Tags, Etc.,

Which we will Print in the Latest Styles and at Reasonable Rates.

ALSO

Wedding, Invitation, Visiting, Programme, and Memorial Cards.

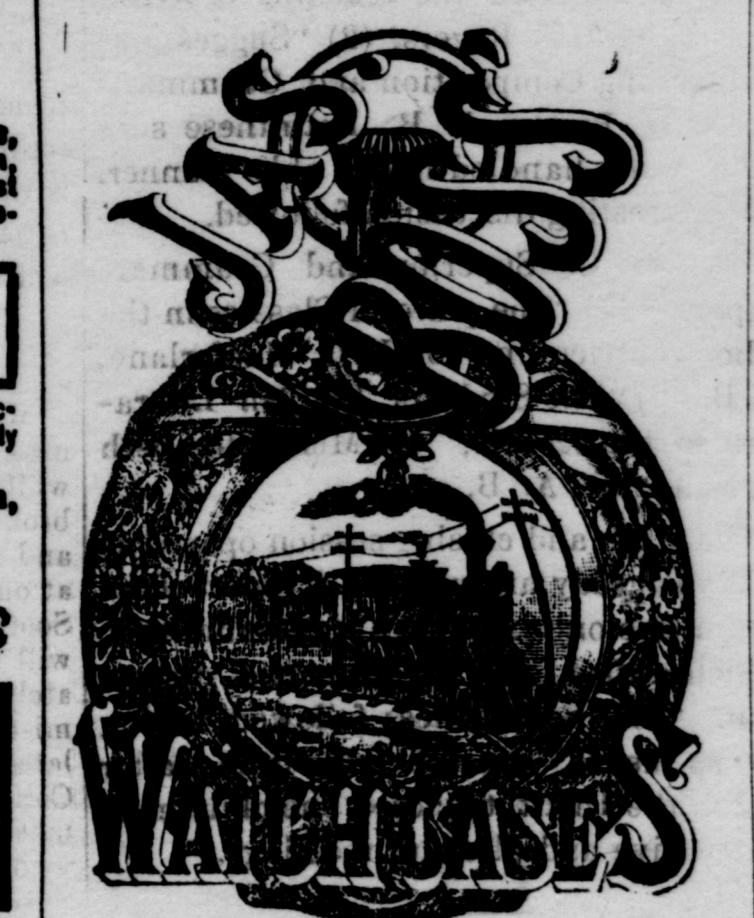
SATISFACTION GUARANTEED.

A. J. MACHUM,

Proprietor.

OFFICE: Sharkey's Block, Queen Street
Opp Officers' Barracks

Watches and Jewelry



F. J. MCCAUSLAND,

Opp. A. F. Randolph & Sons.

T. AMOS WILSON,

BOOKBINDER

—AND—
Paper Ruler.

Cor Queen and Regent Sts.