### 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 CThrough This Column.

> Normal School Examination. (Continued from last issue.)

#### Arithmetic.

II. Time, 1½ hrs. 1. If any three of the four numbers that form the Divisor, Dividend, Quotient and Remainder be given, show how to find the fourth. The Quotient is six times the Divisor and the Divisor is six times the remainder, and the three together amount to 516, find the Dividend.

2. Deduce a rule for finding the L. C. M. of any given number and by it find the L. C.M. of the nine digits.

3. How many rails will enclose a field 23023 feet long by 17765 feet wide, the fence being straight and six rails high, the rails all of equal length and the longest that can be used?

4. Add 7, 9-10, and 15-16 and give the reasons for each step.

Simplify 1  $\times 4147 \div (1\frac{1}{2} - \frac{1}{38})$  $^2 + 4 + 5.6$ 

reasons for each step.

(b) How many yards of matting 2.4 include both.] feet broad will cover a floor that is 27.3 feet long and 20.16 feet broad?

6. Explain clearly and illustrate the difference between Simple and Compound Interest. Find at what rate Simple Interest in two years a sum of money would amount to the same sum as at 4 per cent Compound Interest.

#### Natural History.

CLASS II

Time, 1 hr.

1. Mention the more commonly occurthem briefly, and state how far they are capable of useful application.

chief supply of the following substances: Iron, Chalk, Mineral Paint, Plaster, Sulphur, Lime, Salt, Phosphate, Gold.

3 "The plant exists ready-formed in the seed." Illustrate this statement.

4. What special features of Leaf, Flower or Fruit characterize the following plants: Buttercup, Pea, Aster, Mint and Pine?

5. The Onion, the Potato and the Turnip are often spoken of as "root-crops." Are they all equally entitled to the designation ot roots. Give reasons for your answer.

6. Compare the appearance of a tranverse section of Beech or Maple with that from date at 6 per cent. of Indian corn. What other features of difference, in leaf or flower, accompany those of their stems?

7. How are plants nourished before and after appearing above ground?

E. 8. Compare the following animals as to general structure viz: Man, Monkey Lion, Whale, Bat, Pigeon, Frog, Beetle Oyster and Star fish and deduce therefrom a scheme for their classification.

9. What functions do the Shell, Nerves Brains, Tendons and Joints of animals respectively serve?

Note.—Five questions constitute a full paper.

Geography.

II. Time, 1hr. 30 min.

PART 1.

1. Describe the physical features and present condition of either the island of Cape Breton, Prince Edward Island, the Annapolis valley, or the valley of the St. John.

2. Trace the probable course of a ves- III. waterways through which she must pass: material obtained? or, trace a railway journey from St. John lines, confining attention to one of the ment, steel, ink, paper? following points: (a) the engineering difficulties of the road; (b) the general sponge, coral. character of the country along the line.

for what noted: Cairo, Moscow, Honolulu, Tokio, Birmingham, Vancouver, Luck-

now, Quito, Melbourne, Berne? 4. How much of the continent of Africa

lies south of the equator? 5. Where is the Tropic of Cancer, and how is its position determined?

PART 2. 6. Draw an outline map of North

America: Note.—The Examiner will allow 70 marks for Part 1 and 30 for Part 2.

English and Canadian History. CLASS II AND III. Time, 1½ hrs PART I.-ENGLISH.

1. Under what circumstances did the

death of the following sovereigns occur Harold, William II., Charles I., Edward II:, Henry IV.

2. Explain the connection of the fellowing persons with English history: Becket | tion. Wallace, Simon of Montford, Cardina, Wolsey, John of Grant, Lady Jane Gray. 3. By what steps did Richard II. seek | geon, sexton. to obtain unlimited power? By whom

was he opposed and with what results? 4. State what you know of the following: Canterbury Tales, Introduction of Printing, Abolition of Slavery, Gunpowder Treason.

in the reign of Charles I.

6. What circumstances led to the followeach case: "Battle of the Standard," Bannockburn, Flodden, Dunbar, Trafalgar Waterloo, Quebec, Yorktown.

PART II.-CANADIAN.

1. State what you know of the earliest settlement of New Brunswick. When, and under what circumstances did it become a part of Canada"?

2. Give a summary of the events which occurred along the Niagara frontier in the spring of 1813.

3. Describe the methods by which the laws of the Province are (1) made, and (2) executed.

4. Describe any two of the foilowing events. Exploration of the Mississippi, Founding of Halifax, Battle of Ticonderoga, Battle of the Chesapeake, Siege of Louisburg.

5. What several places have successivey been the seat of government for Canada. Explain the causes of such transfer.

6. State what you know of the following: Clergy Reserves Rebellion Losses Bill, the "Five Nations," Aroostook War,' Montgomery's Attack on Quebec.

Note.—Four questions in Part I and four in part II make a full paper. Arithmetic.

Time, 1 hr. 30 min. SIX QUESTIONS MAKE A FULL PAPER.

[Exhibit the operations clearly. Questions in which the proof or explanation is 5- (a) Divide three thousand and required, are of greater value than the ninety-six hundreds of thousandths by others. The explanation is reckoned of seventy-two millionths and explain the as much or greater value than the oper- how many adjectives one can call to mind. ation, but the unitary method is held to Each player is to apply to "Grandmother's

1. A hogshead of molasses containing letter A. One may say he is an ancient cat, out. At how much per gallon must the None can use an adjective that has been alremainder be sold in order to gain 20 per ready given by a previous player. When one

a floor, 15 ft. 6 in. long and 12 ft. 6 in wide, cost at \$2.40 per yard, the carpeting being 30 in. wide?

3. A and B together can do a piece of work in 3 days. A alone can do it in 5 days. In what time could B do it? Ex- game. ring non-metallic minerals. Describe plain the operation, or work by the unitary method.

4. Find the greatest common measure 2. From what sources do we derive our of 273 and 2808 without factoring, and prove that the result must be the g. c. m.

> 5. Reduce 3-16 to a decimal, and divide the result by four thousand five hundred and ninety-six and eighty-seven thousand and ninety-four millionths until the quotient contains three digits. Explain the method by which you determined the place of the point in the quotient.

6. Find the difference in pints between 5-18 of a gallon and .0875 of a bushel. 7. \$56.25. Fredericton, June 12, 1891.

One year after date, for value received, I promise to pay John Smith, or order, fifty-six and 25-100 dollars, with interest

William Jones. Endorsement June 12, 1892, \$40. What was due on Dec. 15, 1893?

Geography.

PART I.

zcne, meridian.

St. Stephen to Campbellton, or the rivers scheme to extort money from anyone between the same points.

Mention the chief towns on the St. Lawrence and the Great Lakes; or, the principal seaports of Great Britain and Ireland.

PART II:

5. Draw a map of New Brunswick, Note,—The examiner will allow 70 marks for Part I. and 30 for Part II.

Useful Knowledge.

sel like the Viking ship in sailing from 1. What are the different kinds of cot-Norway to the World's Fair at Chicago, ton, linen, wool and silk? Where is silk mentioning particularly the artificial chiefly manufactured? How is the raw

Time, 1 hr.

2. From what sources are the following to Chicago by C. P. R. and connecting common things derived: Glass, parch-

3. State what you know about cork,

4. Name the principal minerals found 3. Where are the following places, and in New Brunswick, and the uses to which they are severally applied. 5. Describe as if to a class in the third

reader, the cause of the seasons.

Grammer and Analysis.

Times 11 hrs. 1. Give the general and particular analysis of:-

"I lived in hope that sometime you

To these my lists with him whom best you loved; And there, poor consin, with your meek

blue eyes, The Truest eyes that ever answer'd Heaven,

Behold me overturn and trample on him. Then, had you cried, or knelt, or pray'd

I should not less have kill'd him." Parse the italicised words in this selec-

3. Give the derivation of: Belfry, daisy dandelion birge, orchard, constable sur-

4. What is meant by Etymology, Syntax, Concord? State and illustrate the rule that determines the number of the

verb when its subject is a collective noun. 5. State the chief sources of the English vocabulary, and mention the different

5. Describe the steps and the results of periods at which words of Latin origin the strife between King and Parliament | were introduced. Give examples of words introduced at each of these periods.

6. To what languages do we owe the ing battles, and what results followed in following words: Yacht, potato, alligator, toddy, calico, brigade, bivouac, jubilee. 7. State as precisely as you can the meaning of the following suffixes: Dom en, ex, hood, ing, and give examples of words formed by them.

Concluded in next issue.

How to Make a Will-o'-the-Wisp. Of course you know that a real Will-o'the wisp is the effect of hydrocarbon gas generated by decomposing organic matter in a marsh, and in a state of combustion. But did you know that you could produce this phenomenon in your own homes? This is how it is done. Take an open-mouthed glass jar and place some baking-soda in the bottom, over which pour a little diluted sulphuric acid, muriatic acid, or strong vinegar. Now lower a lighted candle into the gas until it goes out, leaving the top of the flames still burning upon the surface of the invisible gas. The flames will be fed by the gases coming from the smouldering wick. This Will-o'-the-wisp lasts but a short time, but it may be reproduced by raising the candle until the wick relights. then lowering it again. In order to make a success of this experiment see that the air of the room is very still.

Grandmother's Cat. Here is an amusing game one which will in no way harm poor pussy. Its object is to see Cat" some adjective commencing with the 120 gals. cost \$40. Twenty gallons leaked another that he is an able cat, and so on. can think of no new adjective suitable to ap-2. What will the carpeting required for ply, he must retire from the game. The game is continued until all the adjectives beginning with A have been thought of, and all the members have retired. Then a turn is taken with the adjectives beginning with P. And so on until the company weary of the

### The Waterphone.

In the matter of invention it is a curious tact, says the New York World, that Professor Bell's latest device of importance, the "waterphone," for locating leaks in water pipes, was suggested to him by observing a plumber's apprentice endeavoring to find a leak by means ai a small rod which he held in his mouth and touched against the pipe.

### Had 'Em Twice at Once.

"I had the mumps twice," said little Ab. "You can't have mumpe twice," retorted

'Well, I had. I had 'em twice all once-once this side, and once the other, said Ab, triumphantly.

True Philantrophy.

TO THE EDITOR:

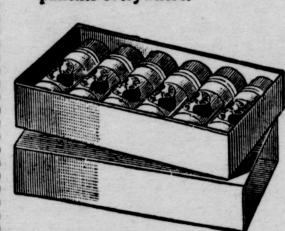
Please inform your read-Time, 1 hr. 30 min. ers that I will mail free to all sufferers the means by which I was restored to 1. Define isthmus, oasis, river basin, health and manly vigor after years of suffering from Nervous Weakness I was 2. Explain the cause of day and night. robbed and swindled by quacks until I 3. Name the coast waters, islands and nearly lost faith in mankind, but thanks to headlands to be seen in a voyage from strong. I am now well, vigorous and strong. I have nothing to sell and no and towns passed in a railway journey whomsoever, but being desirous to make this certain cure known to all, I will send free and confidential to anyone full particulars of just how I was cured. Adiress with stamps:

> Mr. EDWARD MARTIN (Teacher), P. O. Box 143, Detroit Mich. May 20-4m.

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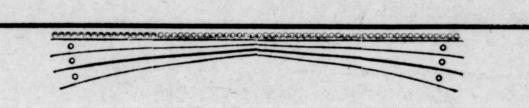
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