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For Entrance and Public School Leaving.
Vol. II., No. 11.

## The Editor Tells Us

That we shall not be allowed to use this space again for some months, and we therefore wish to again remind the many persons who have become interested in

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> The Editor Promises shat we shall be allowed to talk to you again in this not to forget that the T. \& G. Life means a few months. In the meantime, worthy of your youllest confidence at all times, and will be found year by year doing business at the old stand in the Globe Building, Toronto. We shall be glad to answer all inquiries about Life Insurance, and to send copies of Our Advocate to all who ask for them.

HON. G. W. ROSS, President.
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Legislation and History of the Separate Schools in Upper Canada prom 1841 to 1876. By J. George Hodgins, LL.D. Paper, 81.00; eloth

The Forge in the Forgst. An Acadian romance. By Chas, G. D. Roberts. Illustrated by Henry Sandham, R.C.A. Paper, 60 cents ; cloth, illustrated
Paul: A Herald of thr Cross. By Florence M. Kingsley, author of "Titus" and "Stephen." Paper, 50 cents ; cloth $\qquad$
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Scores of other testimonials could be given had we space. If more are wanted, send for our descriptive circular.

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Devoted to the work of Entrance and Public School Leaving Olasses in Ontario Public Sohools.

## G. E. HENDERSON, Editor and Prop.

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## THE ENTRANCE, 83 Winchester St., TORONTO.

## Editorial Notes.

## IMPORTANT.

That there may be no misunderstanding in reference to the changes being made in consequence of the amalgamation of The Entrance and The Educational Journal, we repeat in a measure what we said in our issue of Feb. 1st.

In the first place, after this issue (Feb. 15th) The Canadian Teacher will take the place of The Educational Journal. All teachers who are on the subscription list of either The Entrance or The Educational Journal will receive a copy of The Canadian Teacher of March 1. After that date The Canadian Teachrr will be sent only to those who have paid in advance for The Educational Journal and to others who have sent in 25 cents for the new journal to Sept. 1, '97.

As was announced in our last issue, the new firm will publish two pupils' papers-one called The Entrance, which will deal with the work of fourth classes, and the other The Leaving, which will treat on fifth class work. That our subscribers who are studying Entrance or fourthbook work may have The Estrance, and that those who are engaged in fifth book work may have Thr Leaving sent to them the next issue (March 1st), we request all teachers who have not already notified us to send us at once the following information :

1. The name and address of the person to whom The Entrance parcel is now addressed.
2. The number of P. S. Leaving subscribers now on subscription list.
3. The number of Entrance subscribers now on subscription list.
4. The teacher's name and address.

Teachers who want the new journal, THE Canadian Teacher (36 pages), are requested to remit 25 cents, which will pay for the paper until Sept 1st, '97 ; otherwise the pupils' paper will be sent. Write us as soon as you read this, addressing The Entrance, 83 Winchester St., Toronto.

Article on Railways will appear in next issue.
The Entrance from the present until Sept. 1 for 10 cents.

We have-no copies of The Entrance of Feb. 1st on haad. Supply exhausted several days ago.

Miss A. Cummines, Cummings' Bridge, N.B., says: "The Entrance is the most instructivo of any educational paper I have seen."

All who are in arrears in their subscription to the Educational Journal should make settlement of the amount before March 1st. Those interested will please bear this announcement in mind.

J A. Alexander, Prin. Vittoria P.S., says : "The Entrance Canadian Histury Notes strike the right key in public school work. They are admurably suited to the Third, Fourth and Fifth classes."
The Hel oterra Co. reports many sales of their instrument. It is still running at \$4. See advertisement on opposite page. Teachers will find the Helioterra one of the most valuable school helps now on the market.

Our correspondence department will be resumed in The Canadian Teacher. Hereafter answers to correspondents will not appear in the pupils' papers. The answers to questions on arithmetic and algebra will also be withheld from such papers.

The second edition (4th thousand) of our Enthance British History Notes. and the third edition (11th thousand) of our Entrance Canadian History Notes are now on the market. This is a good record for the short time these works have been on saie.

Have you sent your subscription for The Canadian Teacher? Only 25 cents to Nept. 1. If you have paid in advance for The Educational Journal, it is not necessary to send the 25 cents, as all such subscribers will be supplied with the new journal instead of the old.

## THE ENTRANCE.

## Current Events

## THE PHILIPPINE ISLANDS.

The situation in these islands is by no means encouraging to Spain ; indeed, statesmen and the press are discussing the question of what is to become of the Philippine Islands when they shall have passed out of the hands of Spain.
Japan has long had covetous eyes upon the Philippines, and doubtless considers the present time her golden opportunity ; fact, it is charged that Japan has given aid to the insurgente in more ways than one Japan, however, is likely to find, should she take steps to establish her rule over the Philippines, that it is not Spain with which she will have to deal, but another and stronger power, namely, Russia. The latter country is dreaming of enlarged em pire in the East and as these islands control the waters of the China Sea, Russia is quite alive to their importance. It is within the probabilities that Russia and Japan may cross swords over the Philippine prize. Spain may, however, succeed in bringing her two wayward possessions again under subjection, in which case the bone of contention will be removed from Russia and Japan, a fortunate circumstance, probably, for the latter country.

## GREATER REPUBLIC OF CENTRAL <br> AMERICA.

Until a few weeks ago Central America was divided into five separate and independent states, Salvador, Nicaragua, Honduras, Guatemala and Costa Rica. The first three have at last come together in what is known as the Greater Republic of Central America. It is hoped that the two last-mentioned states will soon join the Union, and thus, to use a familiar term with Canadians, " round off confederation." In case the other two states enter the confederation, the word "Greater" will be dropped from the title.

This union is one that has been long desired by the enterprising statesmen of these various states. but petty jealousies and rivalries have stood in the way. The dream of these states. men is now realized, and the outlook for this portion of the continent is brighter than perhaps at any time in the past. We are told that the union of these states is the outcome of "Great Britain's overbearing conduct towards Nicaragua about a year ago." This observation has, of course, a jingo-Yankee flavor and must be read accordingly. From a geographical, political, commercial and social standpoint such a union was sure to come sooner or later, and the greatest wonder is that it was so long delayed.
The Diet or Parliament of the confederated states will meet in the various capitals, taken in rotation. This arrangement is doubtless but
temporary, the delicate question of selecting a capital being laid over f ir future consideration. The United States has formally recog. nized the new republic.

## CHICAGO DRAINAGE GANAL.

Chicago has undertaken big things, but perhaps the biggest of them all is her Drainage Canal. This canal extends from Lake Michigan to Joliet on the Mississippi, a distance of twentyeight miles. At first the intention was to use the canal for drainage purposes only, but there is now a growing desire on the part of the promoters to have a canal which may be used for shipping. It is c'aimed that such a route for boats will give not only a commercial advantage but that in times of war such a channel will be of vast importance to the country.
This canal, the cost of which is placed at $\$ 7,000,000$, is of peculiar interest to Canada and the states of the Union which border the St. Lawronce route. It is feared that to divert so much of the waters of Lake Michigan into the Mississippi would cause a lowering of the waters of Lake Erie, LakeOntario and theSt. Lawrence, to such an extent as to iaterfere with navigation. Of such vast importance is this matter to the people of the east, that it is quite probable that some years will elapse before our Chicago friends will have the pleasure of seeing ships on their way from Lake Michigan to the Mississippi by way of the Chicago Canal. By the laws of Canada and the neighboring Republic, it is an unlawful act for any individual to divert the waters of any stream from their natural course. This principle applies to corporations as well as to individuals, and should it be found that even the volume of water drawn off by the canal for purely drainage purposes affects prejudicially the navigation of the lower lakes, Chicago may have to reckon with the Congress of the United States and the Parliament of Canada. We are told that when the canal is completed for shipping purposes, a volume of water greater than flows from the Ohio to the Mississippi will pass from Lake Michigan through the canal. Should the quantity of water -required for drainage, viz. 300,000 cubic feet per minute, have an influence on the waters of the lower lakes, it can readily be seen what the effect would be if the canal should be made a channel for shipping.

Geologists, it may be remarked here, hold that in remote times the natural outlet of the great lakes was once by way of the Mississippi ; at another time, by way of Lake Nipissing and the Ottawa. We know that a slight elevation at Sarnia would turn the course of Lake Huron northward into the old channel of Lake Nipissing and the Ottawa. The upheavals of nature may yet be repeated and the course of these waters changed, but it will hardly do for Chicago to go into the earthquake business to the detriment of other cities and peoples of the continent. More later about the "Windy City " and her big canal.

## Answers.

1. When the House meets without the regular Speaker in the chair it is said to sit as a "committee of the whole." The Speaker takes his seat in the House as an ordinary member, and the Deputy-Speaker assumes the position of chairman for the time being. 2. The official paper of the Dominion is the Canada Gazette. 3. The "budget" is the name given to the speech of the Finance Minister soon after the opening of a session. In this speech the minister discusses the expenditures of the past year, and presants his estimates ior the ensuing year ; in short, he veviews the financial condition of the country. 4. Six judges. 5. The revenue of a country is raised by either direct or indirect taxation. In the former case the tax is levied directly on the property of the people, as in cities, towns, etc.; in the latter case the tax takes the form of "customs duties," that is, duties or taxes paid by persons bringing goods into the country. As this duty enhances the price of the goods to the consumers, it is called an indirect taxation. 6. Governor-General is appointed by the Queen-in-Council ; LieutenantGovernors, by the Gov.Gen.-in.Council ; Premier of Canada, by the Gov.-Gen. ; Premiers of Provinces, by Lieut. Gov.-in-Council; Senators, by Gov.-Gen. in-Council ; Judges, the same ; Mayors of Cities, elected by the votes of people; Wardens of Counties, by County Council ; Reeves of Townships, by the votes of the people ; Trustees of $P$. Schools, by the votes of the people; Police Magistrates, by Lieut.-Gov.-in-Council ; Registrars, same ; County Inspectors of P.S., by County Council ; Sheriffs, by Lieut.-Gov.-in-Council. 7. Sir Julian Pauncefote. An ambassador is a minister of the highest rank, employed by a government to rearesent it, and to manage its interests at the court or capital of some other power. 8. The Welland Canal, which is 27 niles in length. 9. "Shooting stars" are small particles of solid matter which passing through space have come within the influence of the earth's attraction. The rapidity with which they approach the earth causes such friction that they take fire and disappear as dust or vapor. Millions are constantly falling upon the earth. 10. Barbadoes (bar-bā-doz). 11. British Columbia, Ontario and Nova Scotia. 12. New Caledonia. Ontario is second. 13. See article in this issue. 14. The "Plimsoll Mark" refers to the white circle found on the sides of all British vessels. The mark is placed on the boats to prevent overloading. Plimsoll had a hard struggle before Parliament made the mark compulsory on all ves-sel-owners. 15. The trochas referred to in Cuban despatches refer to the two fortified lines across the island by order of Gen. Weyler. One of these is twenty-two miles long, and is guarded by thousands of soldiers. All along the line are forts or block-houses, connected by embankments and trenches. Barb wire fences are also placed where attacks might be expected. The object of the trochas is to prevent the union of the forces of Maceo and Gomez. 16. $8258,497,000$. 17. The Intercolonial and the P. E. Island Railway.

Good words are reaching us daily in reference to our Entrance Canadian History Notes. To publish all the good things said about the Notes would require several pages of The Entrance. The price of the notes is 12 cents ; that of the British History Notes, 15 cents.

## Entrance Literature.

## THE BELL OF ATRI.

Before commencing the study of this poem it would be well for the teacher to give the class the plan of the "Tales of a Wayside Inn," from which this lesson is taken. Longfellow lays the scene in the famous old Red Horse Tavern at Sudbury, near Cambridge and Boston, in the State of Massachusetts. Here are gathered the host, a student, a young Sicilian, a Jew, a theologian, a poet and a musician, telling stories in turn. The host tells the first tale, "Paul Revere's Ride." Other stories told are, "The Legend of Rabbi Ben Levi," by the Jew ; and "King Robert of Sicily," by the Sicilian.
They continue until the landlord's snores tell them it is time to retire, and next morning they awake to find all outdoor amusement impossible on account of a drizzling, misty rain.
Looking out of the window of the inn the Sicilian sees,-

Down the road, with mud bespent,
And drenched with rain from head to hoof,
The rain-drops dripping from his mane
And tail as from a pent-house roof,
A jaded horse, his head down bent,
Passed slowly, limping as he went.
This, he tells his companions, reminds him of a tale, when, with their assent, he told the "Bell of Atri."

You should, if possible, read with your class a number of these stories.

## QUESTIONS TO BE ANSWERED IN OUR NEXT ISSUE.

I. In a single phrase or short sentence, give the main idea brought out in this poem.
II. Into what natural divisions may the poem be divided?
III. Does this poem please you; if so, why?

DIVISION 1.
"Atri." a-trē. Where and what ?
"Abruzzo." ii-brūt'-sō. Where and what ?
"Ancient Roman date." What does this mean?
"Scant renown." Give in your own words.
What do you consider beautiful in lines 3-6?
"Re Giovanni." Rã Jo-väin'-nê. What is meant?
"Proclamation." Put this in a word of your own.
"Syndic." Who is meant?

## DIVISION 11.

"Suffice it that." Put this in your own words.
"Strand." What is meant ?
"Braids of briony. What is there beautiful in this expression? Explain the meaning.
"Votive garland." Explain fully.
division ili.
"Falcons with their crimson hoods." What does this mean?
"Prodigalities of camps and courts." Explain this.
"Love of gold." Put this in one word.
DIVISION IV.
"Naked stall." What is meant ?
"Brooding." Explain.
"How best to hoard and spare." Write this in your own words.

## division V ,

"Eating his head off." What does this mean ?
"Provender." What ?
"Long, lonely, silent, shadeless street." What do you consider is beautiful in this line?
"Suburban lanes." Explain.
DIVISION VI.
"Loud alarum of the accusing bell." Put this in your own words.
"With reluctant pace went panting forth." What does this add to the strength of the poem? What do you mean by "reluctant pace"?
"Reiterating-jargon." Write this in your own words.
"Some one-wrong." What do you consider is the beauty of this line?
"Belfry's light arcade." What is meant ?
" Domeneddio." Do-'men-ed-dè"-o. Give the meaning of this.

## DIVISION VII.

" Geaticulation." What ?
"Appeal to heathen gods." What is meant?
"That he should -his own " Was the knight right or wrong when he said this? Why, ?

## division vili.

What do you consider is the application of the two proverbs in the case of the knight ?
"What fair renown-poor brute." Why did the author put these lines in this form?
"He who serves well-loudest at the door." Write this in your own words.

DIVIsion IX.
"Abashed." Give the meaning.
"Church bells at best-my bell doth more." Explain fully.
"Unknown to the laws." What does this mean ?
"Christian clime," What is meant ?

## ADDITIONAL QUESTIONS FOR THE TEACHER'S USE.

1. Write a description of Atri under the following heads :
(a) Its geographical position.
(b) Its date.
(c) Its history.
(d) Its situation.
(e) A comparison of the town to a person.
2. Tell in your own words the story of the
"Bell of Atri" under the following heads :
(a) The setting up of the bell.
(b) The king's proclamation.
(c) The use made of the bell.
(d) The condition of the bell at the time of our story.
3. Write a description of the Knight of Atri, paying full attention to :
(a) An account of how he lived formerly.
(b) An account of how he lived at the time of our story.
(c) An account of his treatment of his horse.
4. Give a description of the Syndic of Atri, noting :
(a) His personal appearance.
(b) His character as far as shown in the poem.
5. The steed's appeal for justice, using the following heads:
(a) The time the appeal was made (Atri at noonday).
(b) The effect of the riaging of the bell.
(c) The coming of the syndie.
(d) The appearance of the horse ringing the bell.
(e) The gathering of the people.
(f) The knight questioned by the syndic.
(g) The knight's contempt.
(h) The syndic's judgment.
(i) The king's approval.

You will find that, if you use these five subjects for themes in composition, insisting that the essays are properly paragraphed and only the one leading thought allowed in each paragraph, you will have no trouble in getting your class to write well.
Did you ever try to encourage your class to il. lnstrate the literature lesson? If not, try this one : let them draw, " the bell as it appears to them,", " the appearance of the horse as he rang the bell," or "the appearance of the knight as the syndic pronounced his judgment."

## ANSWERS TO LAST ISSUE.

general.

1. To Mary, or To Highland Mary. 2, A happy frame of mind as he writes of beautiful things, such as, sweet cot, pleasant b-nks, green valleys, crystal streams, etc. 3. Mary is sleeping. The poet says she is asleep; then, he would not write in such a happy strain if she were dead. 4. Afton is a stream in the southern part of Scotland flowing into the Nith. 6. At night ; the noises made by the birds indicate night-time, also "murmuring stream."
stanza I.
2. "Gently," because the noise might awaken Mary. 2. References in the poem in praise of Afton : "pleasant banks," "green valleys," "crystal stream," etc. 3. Onomatoperia-the use of a word to imitate sound only. 4. We leave this answer for the boys and girls to work out, especially the girls. 5. In this stanza Burns asks the stream to "flow gently" lest the noise awake Mary.

> STANZA II.

1. "Wild whistling "-alliteration and onomatopceia. "Slumbering fair"-metonymy. Pupils should know the meaning of these terms. 2. "Screaming." So anxious is Burns about Mary that the plaintive cry of the lapwing becomes a scream to his ear. 3. The poet makes the same request of the birds as he does of Afton.

## STANZA III.

1. As far as the eye could see. the hills along the Afton were marked by small tributaries, making their way in winding courses to "Sweet Afton." 2. He is speaking of the slopes as he sees them in the distance, and hence uses "there." 3. "In my eye." He does not go beyond sight of Marys home. 4. A picture of Afton at mid day with the poet attending his flocks, near Mary's home.

## stanza iv.

1. "Below." Below the hills, about which he has been speaking. He says in next line "there," meaning some distance from where he stands. 2. A picture of the lovers sitting under the "sweet-scented" birch during the evening hours. 3. "Shades," probably. has here the meaning of screens. 4. An evening picture of Afton, with Burns and Mary seated under the "sweet-scented birk." It is just possible that there is no reference here to a particular birch tree, but to many such trees. It may be that Burns has reference to himself and Mary wandering here and there under the trees, among which the birch probably predominated.

## stanza v.

1. The poet indicates Afton's admiration for Mary by the use of such terms as "winds by the cot," "wanton," etc. 2. We think the reference here is simply to the stemminz of the waters as she walks along the water's edge, plucking the flowers on the bank. 3. A nother picture of Afton, with Mary wading along its banks plucking flowers.

## stanza vi.

1. In the sixth stanza we see the poet coming back in thought to the point where he started. He comes to himself. as it were, as he stands by the stream worshipping, his Mary, who is asleep close by,; 2. "Lays" is used to rhyme with "brues." He says at the beginning "a song in thy praise." 3 Highland Mary is more in his thoug ats in this lay than perhaps is Afton Water.

## Spelling.

Mirror, silhouette, luscious, heroine, incidents, Frontenac's administration, seignior, recital, Madeleine, palisades, ammunition, bonnet, loopholes, garrison, reluctance, cannon (a gun), north-east, deterred, bastions, deceived, cheerful, succor, sentinel, saluted, merciful, sacrifice, infinite, patience, changeling, transfigures, loitered, poulterer's yard, irresistibly, dining-room, unanimity, wonderful, waistcoat, momentary, endeavor, coal-scuttle, delicate, heritage, muscles, sinewy heart, adjudged, natomical details, habitually, stimulants, medical, Highland tragedy, Edinburgh, Christmas, thirty-six, ceiling, noxious, carbonic acid, Black Hole of Calcutta, nitrogen, carbonate of lime, memories, scientific, oxygen, combustion, ventilated, charcoal, inhale, conceive, volcano crater, eruption, original elements, primeval world, transmuted, magically, absorbs, fibre, geranium.

## sUPplementary.

Abdominal cavity, diaphragm, cardiac, intestine, pylorus, serous membrane, pepsin, alcohol, absorption, chyme, duodenum ; A bercrombie, Ticonderoga, St. Pierre, Miquelon, Loyalists, Newark, Maekinac, Rouse's Point, Moraviantown, Chrysler's Farm, Chateauguay, ; celery, asparagus, radish. pumpkin, carrot, muskmelon, gravy, venison. I sold the half-soled boots to a whole-souled mechanic. Do not desert before the dessert is passed. He never accepted presents in our presence. "It is time to relieve them, sir," said I, "we have not been off our bastions for a week."

## Geography

When pupils are asked to give the physical features of a province, or it may be a continent, they are frequently at a loss to know just how much they should write in answer. Perhaps a paragraph or two on this subject will not be amiss. Let us take, for instance, Ontario. The following, which is compiled chiefly from the text-book, might be given as the physical features :

## ontario.

With the exception of the Laurentian region, which occupies nearly the whole of western and northern Ontario, the surface of the province is gently undulating, though an elevated region extends from the Niagara River to Hamilton, thence to Collingwood, where it terminates in the Blue Mountains, the highest in Ontario. Another ridge stretches from Georgian Bay to the Lake of the Thousand Islands. This belt, as well as the Laurentian region'at the north, contains much mineral wealth. Perhaps the principal feature of Ontario is her great chain of lakes, forming with the St. Lawrence, a continuous water-route of over 2,000 miles. Few rivers, however, empty into these lakes.

## QURBEC.

North of the St. Lawrence, with the exception of a strip along the river, the country belongs to the Laurentian region. This portion of the province is rocky, well-watered, well-wooded, and has much mineral wealth. In the west the land is fertile. Ths eastern part belongs to the Appelachian plateau, and, though not so fertile as the west, it has rich valleys and valuable mineral. The province is drained by several rivers, which flow into the St. Lawrence. The principal mountains are the Notre Dame.
The above is given to indicate, not so much what, but how much, should be written by a pupil at an examination, where time is somewhat limited. Of course, if time permits, and the pupil is full of his subject, such answers may be given at greater length. Time and other questions must be the guide. We may continue "Physical Features" in our next. Our treatment of Exports and Imports is held over, owing to the changes being made at present. The subject will be taken up later.

## J. Suddaby, Prin. County Model School,

 Berlin, Ont. : "The unfitness of the authorized text-book on British history has worked great evil to the schools by forcing upon them the lim tolerable drudgery of copying notes upon a the topies of British history. In The Entrance British History Notes the events are treated with such charming brevity and clearness that the necessity for this slavish work vanishes. I am persuaded that the general introduction of this little work into the schools would be followed by a marked improvement, not only in the matter of history, but in other branches as well." This was followed by an order for 50 copies from Berlin.
## Grammar.

## ANSWERS (' 95 PAPRR).

3. Corresponding noun form for free, bold, wise, and corfesponding adjective form for strength, forget, command, exhaust :
(a) Freedom, boldness, wisdom.
(b) Strong, forgetful, commandment, exhaustive.
4. (a) Plurals: duchesses, mesdames, Germans, seraphs or seraphim, spoonfuls, cloths or clothes.
(b) Poss, Singular.
whose
potatoe's
lady's

Poss. Plural.
whose
potatoes
ladies'
Feminine. marchioness
witch
tigress
hind
ewe heroine czarina mamma
5. (b) Each of the spectators promised his or her aid. Reason : It requires his or her instead of "their," "each" being singular.
6. Past tense of certain verbs :

They raise the weight by steam.
He sat down instantly.
The bird flew over the barn.
John laid the book on the table.
He wore a suit of elothes.

## from last tssue.

1. Write out the first and second person of all the indicative tenses of the verb write: P. T., write, writest ; Pres. Perf. T., have written, hast written ; Past T., wrote, wrotest : P. P. T., had written, hadst written ; F. T., shall or will write, shalt or wilt write; F. Perf. T., shall or will have written, shalt or wilt have written.
2. Give the progressive past and simple pluperfect (past perf.) indicative, in all the persons, of lie and pay.

Sing. Progressive Past.
First Person-was lying, was paying.
Second Person-wast lying, wast paying.
Third Person - was lying, was paying.
Sing. Simple Pluperfect (Past Perfect).
First Person-had lain, had paid.
Second Person hadst lain, hadst paid.
Third Person-had lain, had paid.
The plurals might also be given, but we think the above answers the question.
3. Write out in full the various forms of the present tense (active) of the verb wed, and explain the difference in meaning of these terms.
Present tense forms active of wed are :
First person singular-wed.
Second person singular-wedst.
Third person singular - weds.
Present infinitive - to wed.
Present progressive - am wedding.
Present emphatic-do wed.
Present potential - may or can wed.
Present obligative - must or ought to wed.
In the first place, the action is connected with the speaker; in the second place, the assertion is made in reference to some person addressed; while in the third case, the statement is made with refer-
ence to some person other than the speaker or person addressed. In the form to wed the action is. spoken of in a general or indefinite way. The meaning of the other forms is suggested by the term used in each case. It is not necessary to give the plural forms.

## syntax.

Justify the use of the verins in the following :
'1. A portion of wheat was saved.
2. Nine-tenths of the soil is bad.
3. A number of the boys were disobedient.
4. One-third of the words are misspelled.
5. A half of my pupils are ill.
6. The king, with all his hosts, has come.
7. I, and not they, am to blame.
8. Not they, but I, am guilty.

> ANswERS.

1. A portion of the wheat was saved.
2. Nine-tenths of the soil is bad.

Here the subject is a partitive word followed by of and a noun in the singular, and the verb is singular.
3. A number of the boys were disobedient.
4. One-third of the words are misspelled.
5. A half ofmy pupils were ill.

Here the partitive word in each sentence is followed by of and a plural noun, and the verb is plural.
6. The king, with all his hosts, has come.

The number of a subject is not changed by joining it to another noun by means of with, but, like, as well as, etc.
7. I, and not they, am to blame.
8. Not they, but 1, am guilty.

When there are two subjects, and one of them is preceded by a negative word, the other determines the form of the verb.

## Temperance and Physiology.

Questions 1.4 are answered in chapter on Respi-
ration. ration.
5. Lamps burn dim in such cases owing to the presence of carbonic acid gas and other impurities breathed out by those presents
6. The use of tobacco causes a craving for other stimulants.
7. The clotting of blood.
8. The skin is called the "third lung" because impurities of the body escape through the perspiratory glands of the skin.
9. A tonic is a medicine that imparts vigor to the body. A stimulant is a medicine that gives a quick but transient impulse to the action of the heart. A narcotic is a medicine or poison that produces insensibility to pain or stupor, and, in large doses, death. In small doses, properly administered, it acts as a tonic ; in somewhat larger doses, a stimulant.

## The Nervous System.

1. When we speak of the nervous system, to what parts of the body do we specially refer?

2 . What is perhaps the chief function or use of the cerebrum, the cerebellum, and the medulla oblongata?
3. How does the cerebrum compare in size with the cerebellum? Locate each of these parts of the brain.
4. Physically, what is the chief evidence of brain power ?
5. Explain convolutions, vertebre, nerve trunk:
6. Give the weight of some of the largest brains. What is the average weight ?
7. About what depth is the gray matter of the brain?
8. Explain sighing, coughing, hiccoughing.
9. Why do grains of wheat after being chewed become of a sweetish taste ?
10. The right division of the heart is sometimes called the pulmonic heart ; the left division, the systemic. Why is this ?

## Arithmetic

In subsequent issues of The Entrance, work suitable for both junior and senior fourth classes will be given. The answers to these questions will henceforth be given only in The Canadian Teacher. We believe this new feature will have the appr ation of pupils as well as t achers. The publishing of the answers with the "uestions has been a source of weakness to the page.

## SENIOR FOUR'TH.

The ice on a pond, whose area is $\frac{1}{2}$ on acre, is 10 in . thick. How many tons of ice may be taken from the pond, supposing a $\mathrm{cu} . \mathrm{ft}$. of ice to weigh 56 lbs. ?
2. What quancity taken from 1594 will make it exactly divisible by $12 \frac{3}{8}$ ?
3. In what time will a sum of money double itself at 6 per cent. simple interest?
4. A can run a mile in 5 min ., and $B$ can run it in 6 min . How many yards' start should A allow $B$ in order to make their chances equal?
5. If by selling oranges at 24 for 18 , 6 d . I gain 50 per cent., at what price ought I to sell them per doz, to gain $66{ }^{2}$ per cent. ?
6. Divide ${ }^{\frac{1}{2} \frac{1}{2} 6}$ by the difference between the greatest and least of the following fractions: 㥉, 18 , and $\frac{1}{2}$.
7. How long will it take a train $1^{\frac{1}{6}}$ of a mile long, going at the rate of 10 miles an hour, to cross a bridge 2 miles, 80 rods in length ?

Answers: 1. $508 \frac{1}{5}$ tons ; 2. $54 ; 3.16 \frac{2}{3}$ years ; 4. 293 f yds. ; 5. 10d. ; 6. 1; 7. $13 \mathrm{~min} ., 52 \mathrm{~h}$ sec.

1. A can do a piece of work in 6 days, B in 9 days, and C in 10 days. A and B work at it together for 2 days, then B and C work together at it for $\frac{1}{2}$ a day. How long will it take a boy, who does $\frac{1}{2}$ as much in a day as C , to finish it.
2. Simplify : $\frac{1}{2} \div \frac{3}{4} \times \frac{1}{3} \div \frac{7}{5}$ of $\frac{8}{8}$.
3. Reduce 144 lbs , avoirdupois to ozs. troy, and express the result as the fraction of 350 lbs , troy.
4. Divide $\$ 190$ among $A, B$, and $C$, so that $B$ may have $1 \frac{1}{2}$ times as much as A , and $\mathrm{C} 1 \frac{1}{2}$ times as much as B .

5 . Find the cash value of the following, 8 per cent. being allowed off for cash:

76 bus. 20 lbs , buckwheat at 60 cents a bus,

| 76 | 12 | wheat | 4 | 90 | 4 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 29 | 16 | barley | $"$ | 63 | 4 | 4 |
| 92 | 24 | millet | $" \$ 172$ |  | 4 |  |
| 53 | 30 | Hungarian | " 2.40 |  | 4 |  |

6. Find the value of $5_{\frac{1}{3}+\frac{1}{3}+\frac{1}{4}}^{\text {6 }}$ yards of sealette at

$$
\$ 7\left\{\begin{array}{l}
t-\frac{1}{t} \\
\frac{1}{8}
\end{array}\right\} \text { a yard. }
$$

7. At what rate per cent. will $\$ 80$ amount to 891.70 in 2 yrs., 3 mos. ?

Answers: 1. 67 days ; 2. $1 ; 3 . \frac{1}{2} ; 4 . \mathrm{A} \$ 40, \mathrm{~B}$ $\$ 60$, C $\$ 90 ; 5 . \$ 373.06 ; 6 . \$ 60 ; 7.6 \frac{1}{2}$ per cent.

## JUNIOR FOURTH.

1. A can walk 4 miles, 80 rods an hours and $B$ can walk 110 yds , in a minute. How long will it take A to overtake B if the latter has 2 min . the start?
2. Find the cost of 298,400 shingles at $\$ 4.80$ a thousand.
3. A bought potatoes at 75 cents a bus., and B bought apples at 72 cents a bag. How many bus. of apples should B give A for 1,200 bus, of potatoes?
4. How often does the L. C.M. of 3, 6, 18, 17, 42 and 64 contain the H.C.F. of 18996 and 29932 ?
5. Divide $\$ 94.50$ between A and B , giving (1) A half as much again as B ; (2) giving A's share less half A's share to B.
6. A man is worth 810,000 ; a person for $\frac{18}{18}$ of his share receives $\$ 150$. What part of the mine did he own?

Answers: 1. $15 \mathrm{~min} . ; 2.81,432.32 ; 3.1875 ; 4$. 17136 ; 5. (1) A $\$ 56.70$, B 837.80 ; (2) A $\$ 63$, B $\$ 31.50 ; 6$.

1. Simplify : ( $\frac{7}{7}$ of $1 \frac{1}{4}$ of $\frac{1}{1} \frac{1}{5}+3 \frac{1}{2}$ of $2 \frac{1}{2}$ ㅇ $\left.-2 \frac{2}{3}\right) \times 38$.
2. If $\frac{z}{}$ of an estate be worth $\mathbf{f} 220$, what is the value of ${ }_{1}^{3}$ 咅 of the same ?
3. A person spends $\frac{5}{8}$ of his money for clothing, $\$$ of the remainder for groceries, and has $\$ 15$ left. How much had he at first?
4. Divide the sum of $\frac{8}{8}$ of 8 d , and 24 of 5 g by the difference between $\frac{3}{4}$ of $3 \frac{2}{2}$ and $\frac{1}{2}$ of $\frac{1}{3}$ of $2 \frac{2}{g}$.
5 . The bottom of a cistern is 7 ft .6 in . by 3 ft .2 in. How deep must it be to contain $3,750 \mathrm{lbs}$. of water, a cubic foot of water weighing $1,000 \mathrm{oz}$. ?
5. 4 men or 6 boys can do a work in 8 days, how
long will it take 8 men and 4 boys to do such a piece of work?

Answers : 1. $27 ; 2, £ 90 ; 3.8168 ; 4.15 ; 5.2$ $\mathrm{ft} .6{ }_{1}{ }^{6} \mathrm{in}$; 6. 3 days.

Answers to Paper 4 of last issue: 1.14 days ; 2. \$4; 3. ${ }_{1} \frac{17}{5} ; 4.142992 ; 5.812 ; 6$. . $\$ 96.86 \% ; 7$. 15 gallons.

W, C, Coatham, Principal Boys' School, New Westminster, B.C., says: "The teachers of our city have examined The Entrance, and are much pleased with it. Eight of ${ }_{i}$ them, besides myself, wish to subscribe for it." A few weeks later Mr. Coatham sent us the subscriptions of 35 teachers of his province, for which he has our thanks.

Inspector Chapman of the Toronto Public Schools writes Mr. Chas. Fraser as follows : "I can heartily compliment you on The Entrance British History Notes prepared by yourself and Mr. G. E Henderson. The facts are well chosen, tersely expressed and systematically arranged. You have certainly conferred a benefit on all teachers doing Entrance work." In this connection we may remark that several of the Toronto Public Schools are now using both our Canadian and British History Notes.

## Public School Leaving.

## ARITHMETIC.

Hereafter more space will be given to arithmetic and algora. This we are enabled to do only by issuing another paper called The Leaving. The answers to the questions given will not appear in The Leaving, but will he inserted only in The Canadian Teachrr. This will make the page much more valuable both to teacher and pupils. Owing to the changes we are making, no more of what we might call "knotty problems" will appear in our pupils' papers; they will be dealt with in The Canadian Teacher. We have room in this issue for only one paper.

## Solvr.

1. A man's pay being increased 25 per cent. is thereby increased to $\$ 8.75$ a week. What was his former yearly salary ?
2. One-fourth the cost of a horse is $\frac{1}{6}$ of the selling price, and the gain at which it is sold is $\$ 180$ : find the cost of three car-loads of such horses, there being 17 horses to a car.
3. Divide the square of .025 by the cube of .002 .
4. A man invests 84,275 in the $\mathbf{4}$ per cents at $\mathbf{9 5}$, and at the end of the year he sells out at 90 and invests half the proceeds in the 31 per cents. at 81 , and the other half in the 6 percents, at 108. Find the change in his yearly income.
5. The sides of a rectangle are as $3: 4$, and its area is 972 sq . yds. ; find the length of the longest straight line which can be drawn on the rectangle.
6. A farmer sold on the market a load of oats at 28 cents a bush. ; but the grain dealer weighed it for barley and gave the farmer a cheque for it at 45 cents a bush., by which the farmer was $\$ 9.30$ in pocket. How many lbs. of grain had he on his wagon?

Answers: 1. $\$ 364 ; 2.18360 ; 3.78125 ; 4 . \$ 20$ increase ; 5. 45 yards ; 6. 8160 lbs.

Note. - Papers on arithmetic and algebra will appear in The Leavina, which will henceforth be went to all our P.S.L. subscribers instead of The bance.

## GRAMMAR.

E. S. : Analyse "I seem to know this." Kind-simple assertive. Subj. -I.
Pred. $\left\{\begin{array}{l}\text { Incomplete Pred.-seem. }\end{array}\right.$ Pred. $\begin{gathered}\text { Complement-to know (an infini- } \\ \text { tive used as a predicate noun). }\end{gathered}$ Obj. of Complement-This.
S. S. : Parse-"I see the spire from here." Here-adverb used as a substantive, objective case governed by from ( $=$ this place).
W. ., ${ }^{\text {a : Analyse and parse - "Let us sing a }}$ song."

Kind-simple imperative.
Pred-Let.
Complex Object $\left\{\begin{array}{l}\text { Objective subj.-us. } \\ \text { " Pred. }- \text { sing. } \\ \text { Obj. of sing }- \text { song. }\end{array}\right.$ $U_{x}$-pronoun, personal, first, plural, objective, being the object of the verb let and subject of infinitive sing.

Song-noun, common, objective, governed by inf. sing.
M. H. : Parse-"It is not worth a dollar."

Worth-Predicate adjective, modifying it and completing is.
Dollar-Noun, in the adverbial objective, modifying worth.
(Other questions answered later.)
Paper of '96 Continued.
3. Distinguish the different uses of lut in the following:
(a) All but one have fled. Preposition, relation all and one.
(b) He is but a landscape painter. Adverb, modifying is.
(c) 0 ! but she will love him truly. Adversa-: tive conjunction, joining interjection " 0 !" (which is equal to a sentence) with the following statement.
(d) Break, break, etc. Adversative co-ordinate conjunction, joining verbs break and will come.
(e) There is no fireside, etc.-either (1) negative rel. pronoun ( $=$ that not), antecedent -fireside and subject of has; or (2) subordinate conjunction ( $=$ unless) joining verbs is and has (in this case, it is to be supplied for the subject of hast; or (3) a preposition ( = except) relation fireside and noun clause " (it) has - chair." Of these three possible ways, the second is perhaps the most satisfactory.
4. Distinguish elearly, giving example of the four verbal forms in "ing."

1. Verbal noun-A noun derived from a verb and retaining no verbal function, e.g., He likes good reading.
2. Gerund - A noun derived from a verb and retaining verbal function, e.g., He likes reading good books.
3. Verbal adjective-An adjective derived from a verb and retaining no verbal function, e.g., He owns a trotting horse.
4. Participle-An adjective derived from a verb and retaining verbal function, e.g., We saw a horse trotting down the street.

Have you The Entrance Binder? It costs only 15 cents, or in clubs of four or more, 12 cents. Convenient for using The Entrance.

Miss Cunningham, Morris St. School, Halifax, says: "I am glad to have a paper that is purely Canadian. Send us 30 copies."

If you should not receive your paper within a week after date of publication there is something wrong. The probabilities are that it has gone astray in the mails, and you should lose no time in letting us know of the delay. Do not wait longer than a week before writing us, should your paper fail to reach you at the proper time.

## P. S. L. Literature.

## DEAR HARP OF MY COUNTRY.

Owing to amalgamation of The Entrance and The Educational Journal the regular literature lesson is withheld from this issue, and the following questions are given instead. Next issue these questions will be answered and questions on another lesson will be given. We shall henceforth deal only with such lessons as have not been treated earlier in the term.

## Questions To Be Asswered In Our Next Issue.

1. What is the main idea brought out in the poem? 2. What is peculiar in the form of the poem? 3 Show what part each stanza plays in the development of the theme ? 4. What is there revealed of the circumstances of time, place and mood under which the poem was written? Give reasons for your answer. 5. What is there revealed in the poem of the personality of the supposed author? Give reasons for your answer, 6. Show in what ways the poet has given force and beauty to the poem

Stanza I. - "Dear harp of my country." What is meant? "In darkness I found thee." Explain fully. "Cold chain of silence." W hat figure is used here? Is it pleasing to you? Why? "When proudly" Why prondly? "I unbound thee." What does this mean? "All thy chords." What is meant? "Light freedom and song." What do you think suggested these words to the poet? What do they mean?

Stanza II. - "The warm lay of love." What does this mean? "The light note of gladness." Put in your own words. What words aid most to the beauty and force of this line? What is the connection in sense between line 2 and line 1 ? "The deep sigh of sadness." Explain fully? Paraphrase lines 3 and 4. What is the force of the word " echoed" as used here? What poetic artifice has the poet adopted in lines 3 and 4 to give beauty to the poem ?

Stanza III. - "Farewell to my numbers." What does this mean? Explain. "This sweet wreath of song." What makes this expression especially beautiful? Explain fully. "Last we shall twine." Why? What poetic artifice has been adopted in line 3? "Sunshine of fame." Explain. What does the poet mean in the last line?

Stanza IV.- "Pulse of the Patriot." What is meant? Why is the "patriot," "soldier" and "lover" introduced in this line? "Throbbed to our lay." Give the meaning. "Tis thy glory alone." What does this mean? Why does the poet say this? Explain the last two lines. Show the appropriateness of "heedlessly" and "wild."

## Composition.

## PLAN. <br> Introduction : -

(a) When I usually rise.
(b) What I do before breakfast.
(c) The hurry to school.

Discussion :-
(d) The routine of lessons.
(e) Some amusing incident,
(f) Sports engaged in.
(g) Home lessons.

## HOW I USUALLY SPEND THE DAY.

## My Dear Friend May,

Your letter afforded me much pleasure. I am glad to learn that you are contented with your school life, and that the days are passing pleasantly, even though you are so far from home. I have decided to give you, what you requested in your letter, a brief sketch of "How I usually spend the day."
Having spent the most of my life on a farm, I have been trained to believe in and practise early rising. hence each morning about six o'clock finds me up and dressed.

Then, after concluding my morning devotions, I don my hat and hasten towards the beach for a long walk before breakfast. This morning walk is one of the truest pleasures of the day. It is glorious, on a bright, calm morning, to watch the rising sun smiling on the peaceful waters of the lake, though to me it seems still more glorious when the wind plays with the white-cap'd waves, and the breakers dash upon the beach. Then, too, the morning song of the happy little warblers in the trees, that nestle along the bank, fills the air with the sweetest of music. But, all too soon, my morning walk is ended, and I have to return.
Then, breakfast being over, I hurriedly prepare for school.
Now, I need scarcely tell you what I do in school, for you know it is the same old, "twice two are four," and " $(a+b)^{2}$ " equals " $a^{2}+2 a b+b^{2}$," cte. But some of our studies are very interesting, and are a source of great pleasure to me.
Our room is constantly visited by all who are late. all the unruly and all those seeking transfers, or others who desire to see the principal. On Thursday morning an amusing incident occurred. A small boy, with a very troubled countenance, entered the room, and, in tremulous tones, almost choked by sobs, said, "Please, teacher, I have an awful toothache, may I go home?" Our teacher, who had just been teaching us some physical science, glanced at the pitiful suppliant, and beckoned him to come forwart, which command was quietly obeyed. "Now, my boy," said he, "I will tell you how to cure it. When you go home, tie one end of a piece of string to your tooth and the other end to a bed-post; then run away from the bed-post and out of the room, and the troublesome tooth will be left behind." The child looked bewildered, and the teacher said, "Now, can you tell me what pulled out that tooth?" But the boy was silent. The question was then submitted to the class for settlement. But the strangest fact was that the boy's sobs had ceased, and the toothache had gone.
Though the most of our school life is taken up with studies, yet we have our sports, there being a short recess each morning, during which time we engage in various games.
When, at last, the clock strikes four we hastily pack up our books and return home; and after the evening meal I attempt to plod through the many home lessons that are abundantly provided each day by our generous teacher. This being done, I retire to rest, and thus cach day, with all its joys and perplexities, passes away.

Note: The above composition was written by Gertrude Kearney, a pupil of one of the Toronto schools.

Miss L. Davy, Wesleyville: "Your Canadian History Notes are the best I have seen."
Geo. McKee, Orillia: "I think your Canadian History Notes are good. No doubt many of them will be used here "

THE FORMATION OF MIST, DEW, CLOUDS, RAIN, HAIL AND SNOW.

Dew appears in an open grass field, during a still and bright night, from the following causes : The upper parts of the grass radiate their heat into the regons above, which send back no heat in return ; the lower parts of the grass, from the smallness of their conducting power, transmit but little of the earth's heat to the upper parts. The grass, being colder than the atmosphere, receives heat from the atmosphere, which consequently becomes colder ; and if its temperature be sufficiently decreased, the vapor in it becomes cool below the point at which its pressure can be maintained, and some of it is therefore condensed into dew and deposited on the grass.

Dew appears chiefly where it is most wanted, on herbage and low plants, avoiding, in a great measure, rocks, bare earth, and water.

When dew is deposited on bodies cooled below the freezing point, it is solidified into hoarfrost and rime.

A solid body between a substance on the ground and the sky prevents the substance from becoming cold by radiation, sending back to the substance the heat received from it. A very slight covering protects a plant from frost.

Dew is formed more freely on a clear night, because clouds radiate back the heat intercepted by them in its progress from the earth upwards.

Dew is formed more freely on a calm night, because any agit,tion of the atmosphere tends to send continually currents of warmer air, which will replace the heat that substances lose by radiation.

The mists on low lying marsh lands in the evening are caused by the rapid cooling of the air when the sun has set.

The morning mists over rivers and lakes are caused by the water cooling much more slowly than the air that is in contact with it.

In hot, dry weather there is often more vapor in the atmosphere than in cold wet weather.

Grass, on a clear and calm night, is much colder than the gravel or earth by its side, because heat is conducted better to the latter from the earth below, and also because grass radates its heat faster than gravel, on account of the larger amount of surface which is exposed.

Air, on a clear and calm night, is colder at the surface of an open plain than at any point above the surface for at least 200 feet ; and frosts are less severe on hills of moderate height than on the neighboring plains when the night is still and the sky unclouded.

The leaves of trees often remain dry, while grass near the trees is covered with dew. This may be because more air is stirring about the tree, and because but few of the leaves are exposed to the sky above, and because the air about the tree is warmer than that close to the grass.

The dissemination of vapor through the air is very much assisted by the convection currents
caused by the warming of the air which is in contact with the ground. In this way it may be carried up into the upper regions of the atmosphere, where it will remain as long as its temperature is maintained above its dew point.

The temperature of a mass of air and of its contained vapor may be lowered in the following ways :-
(a) By mixing with colder air.
(b) By contact with colder surfaces, such as mountain tops.
(c) By radiation into space.
(d) By expansion owing to reduced pressure.

These four causes, operating together or singly, may produce condensation of vapor from the atmosphere.

From a moist and warm soil vapor rises, spreads itself into the colder air, and is condensed into small aqueous particles, which float in the air, and become visible as mist or fog

Clouds are formed from the condensed vapors rising from the earth, and differ from mist only in occupying higher regions of the atmosphere.

It has been shown that, supposing the clouds or mist to be composed of excessively small particles, the rate at which such particles would fall or move through the air is so slow that they partake as a whole of the same motions as the mass of the air in which they may be, and in this way they become, as it were, suspended or buoyed up in the atmosphere.

When this watery vapor becomes more condensed, the particles unite and fall as rain.

Snow is vapor suddenly condensed into the solid state.

Hail is formed out of rain-drops that freeze as they fall through colder regions.

The small cloud particles are formed into rain-drops or hail-stones in consequence of the larger particles descending faster than the others, combining with those which they overtake in their descent, and thus having their velocity increased, and adding to their size at an increasing rate.

Mountains stop the currents of warm and moist air rising from the eartb, and in part condense them, in part force them upwards to regions where, owing to the reduced pressure, they are condensed and remain as mist, or fall as rain or snow.

When the temperature of a portion of the earth's surface becomes higher, the air in contact with that surface is heated, expands, and rises, while its place is filled by colder air from lateral directions. This is the cause of the land and sea breezes that blow regularly in hot countries near the coast-from the sea to land during the day, and from the land to the sea at night. For, during the day, the land is more heated than the sea, and the air that lies over the land is forced upwards by colder and therefore heavier air coming from the sea ; but during the night the land cools faster than the sea, and the contrary effect is produced.

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## OFFICIAL CALENDAR.

EDUCATION DEPARTMENT.<br>January :<br>14. Annual Reports of Boards in cities and towns, to Department, due. (Before 15 th January.) Names and addresses of Separate School Trustees and Teachers to be sent to Department. [S.S. Act, sec. 28 (12).] (Before $5^{5}$ th January.)<br>19. Provincial Normal Schools open (First Session). Reg. 66. (3rd Tuesday in /anu-<br>20. First meeting of Public School Boards in cities, towns, and incorporated villages. [P. S. Act, sec, 61 (1).] (3rd Wednesday' in January.)<br>Appointment of High School Trustees by Public School Boards. [H. S. Act, sec. 12; P. S. Act, sec. 61 (1).] (3rd Wednesday in January.)<br>26. Appointment of High School Trustees by County Councils. [H. S Act, sec. 12 (1); Mun. Act, sec. 223.] ( $4^{\text {th }}$ Tuesday in January.)<br>\section*{February :}<br>3. First meeting of High School Boards and Boards of Education. [H. S. Act, sce. 13 (1): ( 1 st Wednesday in February.)

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