THE EDUCATIONAL HORIZON

—A SATURDAY FEATURE—

PRESENTING NEWS AND VIEWS OF INTEREST TO TEACHERS AND ALL OTHERS SEEKING IMPROVEMENT IN EDUCATION

REDUCED MEMBERSHIP IN FEDERAL HOUSE

After the next Federal election, membership in the House of Commons will be reduced. In the next Parliament, Manitoba will have 14 members instead of the present 17, and Saskatchewan 17 members instead of 21. The representation of the other provinces will remain unchanged. That is, the distribution of seats will be: Prince Edward Island 4, Nova Scotia 12, New Brunswick 10, Quebec 65, Ontario 82, Manitoba 14, British Columbia 18, Alberta 17, and Yukon Territory 1 — a total of 238. The change came about as a result of the 1941 census which indicates that the population of other provinces has increased in the past 10 years to a considerably greater extent than that of Manitoba and Saskatchewan. According to the British North American Act, Quebec is always to have 65 members in the House. The other provinces will be represented according to how their population compares with that of Quebec. Prince Edward Island is assured of having at least four members whether or not her population warrants that number.

LABRADOR

Labrador, an area of about 110,000 square miles, along 1,500 miles of coastline on the northeast coast of Quebec, is rich in minerals, cod, salmon and herring fishing and sealing are important industries during summer. It has water power for electrical development. The present boundary was fixed in 1927 when the Privy Council ruled that the Labrador coast,—recognized as a part of Newfoundland should extend back to the watershed of the river running into the Atlantic. Premier Godbout of Quebec is asking that negotiations be opened with the Governments of Great Britain and Newfoundland to return Labrador to the Province of Quebec.

CORSICA

Corsica is an island in the Mediterranean Sea, under French rule since 1768 was bombed and occupied by Italy in the summer of 1940. It is 114 miles long and 50 miles broad. It is 105 miles south of France and 150 miles west of Rome. The east coast is regular but the west is deeply indented; interior is mountainous; chief summit is Cinto 8,881 feet. A large plain, fertile but marshy, extends from the east coast to the foot of the mountains. Immense tracts of splendid forests, notably of chestnut trees and olives. Higher up are pastures with many sheep and goats. The most important agricultural products are olives, wines, fruits (lemons), and potatoes; important fisheries, also coral fishing; minerals include lead, copper, and antimony; granite and marble. Climate is salubrious, except on the east coast, where plain is malarious. Capital is Ajaccio, the birthplace of Napoleon Bonaparte, today a modern seaplane base. Other ports are Bastia and Calvi. The population of Corsica in 1931 was 289,930.

SARDINIA

Sardinia is a large island in the east Mediterranean, forming a dep. of Italy; immediately south of Corsica, from which it is separated by the Strait of Bonifacio; surface is mountainous; almost equally divided between forest, arable land and pasture; drained by Rs. Tirso, Samassi and Flumendosa. Climate is hot and unhealthy in lower districts. Products lead, zinc, silver, lignite, and blende. Forest products, oak, olive and other timber; cork, tanning bark, charcoal. Principle industry is agriculture: wheat, barley, and other crops grown; fruit largely cultivated; horses, cattle, sheep and goats reared. Wine largely produced; tunny, sardine, and anchovy fisheries. Chief town is Calgiari. Area is 9,299 square miles. Population in 1931 was 864,000. The eastern coast of this island is steep-cliffed, difficult to approach by sea. Cardina is valuable to Axis as possible evacuation haven for harassed German-Italian forces in Tunisia. French Corsica, now Axis-occupied, and Italian Sardinia are two potential stepping stones for invasion of southern Europe. Close to the coasts of France and Italy, they would be ideal bases for attack if seized by the Allies. The parallel islands are already beginning to make news with the record raid on Calgliari, Sardinia.

LITERATURE (TO A MOUSE)

The poet was ploughing in November, 1785, and the plowshare happened to turn up the nest of a field mouse. The small creature was in haste to escape, when one of the farm servants, John Blane, made after it with the plow-spade or pattle. Burns called on him to stop, and fell into a pensive mood, in which he composed the piece just as it stands. It has been said that "few poems have done so much as this to quicken men's sympathies with the weaker and more helpless among created things."

Explain (a) Stanza two.

Answer (a) I am sorry man's dominion over the beasts has broken the social union in which they lived at the beginning when animals were not afraid of man. Because of the way in which man treats animals you are justified in being afraid of me even though you are really my earth born companion and a fellow mortal.

(b) "Thy wee bit housie, too in ruin!
Its silly wa's the win's are strewing;

Answer. Your small house has been destroyed and the winds are blowing its flimsy walls about.

Answer (c) But mousie you are not alone in finding out that foresight may be all in vain, for the best thought out schemes of mice and men often go wrong leaving us nothing but disappointment and sorrow instead of all the joy we had hoped for.

(d) Stanza eight.

(d) When all is said, however, you are blest compared with me, for you only think of the present whereas I look backward at my past mistakes and try in fear to guess at the future.

(e) Is the poet more concerned with the misfortunes of the field-mouse, or with his own?

Answer. I think this poem tells us the poet is more concerned with misfortunes of the field-mouse than with his own. His own misfortunes are an afterthought.

(f) Burns has taken the simple mouse, written a poem about it and has made us feel for the mouse as well as enjoy the poem. How has he done this?

Answer. By writing as if the field mouse was a fellow mortal of almost as much importance in this world as we ourselves. By himself being really interested in the misfortunes of the field mouse.

FERTILIZER MATERIALS AND TERMS

Acid: A term used in chemistry which applies to certain compounds made up of hydrogen and some acid-forming elements, with the power to neutralize bases and form salts. Acids are recognized by their sour taste, and also by chemical indicators. Examples of common acids: Hydrochloric, nitric, sulphuric, phosphoric, etc.

Acid Soils: Soils containing enough acid forming elements to neutralize the bases and build up an excess of acids.

Base: A term used in chemistry to indicate compounds which have the power of neutralizing acids and forming neutral salts. Bases in solution are recognized by a soapy feel and brackish taste.

Basic Slag, (Thomas Phosphate) A by-product of the manufacture of steel from phosphatic iron ores, or pig iron by the Thomas Process. Slag contains from 12 to 25 per cent phosphoric acid; a total of 40 to 50 per cent lime and varying amounts of silica, magnesia, manganese, iron, alumina and sulphur, etc. and is used mainly as a source of phosphoric acid on acid soils.

Lime: Usually means calcium oxide or calcium and magnesium oxide. Generally used to neutralize acidity in soils or fertilizers, and may be available under many forms.

Air Slaked Lime Derived from exposure of quick lime to air.

Hydrated Lime: A dry product of water slaked quick lime.

Burned lime, quick lime, unslaked lime, caustic lime: Meaning a prepared lime capable of slaking in water.

Ground Limestone: Pulverized calcareous or magnesium (dolomitic) limestone.

Dolomitic Limestone: A double carborate of lime containing both calcium and magnesium carbonates. This form of limestone is often used as a filler in fertilizers intended for magnesium deficient soil.

Magnesium Sulphate: A crystalline white salt generally sold under the trade name of Kieserite or Emjeo; contains from 30 to 31 per cent magnesium oxide and is usually mixed in fertilizers intended for magnesium deficient soils.

Nitrate of Soda: A pure white salt, readily soluble in water, analysis about 16 per cent nitrogen, alkaline in reaction in soils, readily available to plants. It is either manufactured from synthetic ammonia or nitric acid and sodium carbonate, or derived from deposits of Caliche in Chile.

Neutral Fertilizer: This is a term applied to a fertilizer in which the acid-forming elements are balanced by basic elements in such a way that the entire mixture when applied to soils will not increase the acidity or alkalinity of the soil. The mixture itself, however, may not be neutral in the proper sense of the word, the term being applied simply to the reaction of the mixture in soils.

Alkali Soils: Soils containing enough base elements to build up a PH reaction above PH 7. (While in an acid soil the PH falls below PH 7.) These base elements capable of neutralizing acids, may be present under many forms as: Calcium, magnesium, sodium, potassium, ammonium, etc.

PH (Hydrogen Iron Concentration): A term now widely used to indicate the degree of acidity or alkalinity in soils and solutions. A neutral solution has a PH value of 7.0. Values above 7.0 denote alkalinity, and below 7.0 denote acidity.

Phosphoric acid: In fertilizer trade practice, the term means: that combination of phosphorus and oxygen expressed by the formula P2 O5.

Superphosphate: Now sold in the Maritime Provinces as 20 per cent of 16 per cent P2 O5. Is produced from treatment of phosphate rock with sulphuric acid.

Potash: The term potash, as used in fertilizer, designates potassium oxide. It is supplied in the form of various carries: as muriate of potash, sulphate of potash and sulphate of potash magnesia.

Sulphate of Ammonia: A commercial by-product made from the gas of coke and sulphuric acid; or from ammonia, gypsum and carbon dioxide. It analyzes about 25 per cent ammonia equivalent to 20.5 per cent nitrogen, and is widely used as a source of nitrogen in fertilizers, giving best results on limed soils on account of its acidity reaction.

FROM TEMPERANCE AND LIFE

1. Name the principal things required for good health?

Answer. The principal things required for good health are: (1) Fresh air; (2) pure water; (3) proper wholesome food; (4) clean bodies; (5) proper exercise and rest; (6 clean surroundings; (7) temperate habits in all things and knowledge of what to do, and to avoid and the good sense to use this knowledge.

2. Give general reasons why the body requires a great amount of water daily?

Answer: (1) Much water is breathed out of the lungs daily: (2) water is needed to get rid of the waste material through the pores of the skin in the form of perspiration; (3) internally it assists in the elimination of wastes; (4) it also helps to regulate the heat of the body by circulating through the tissues and by the art of perspiration (keeps the body cool) ;(5) plays a remarkable part in the aiding of chemical changes which is the basis of metabolism.

3. Give reasons why alcohol retards metabolism.

Answer: (1) Alcohol has a strange desire for water and when taken into the human body it robs the tissues of their water; (2) It shrivels the corpuscles of the blood retarding oxidation; (3) It causes the food to harden, interferring with digestion and the elimination of waste; (4) Leads to disease because it is a poison, lessens muscular, mental and moral power, creates constant craving for more, and overworks the heart.

4. What is the boiling point of water? of alcohol?. What is freezing temperature? What is blood heat?

Answer: The boiling point of water is 212 degrees; alcohol 172 degrees; freezing is 32 degrees, and the blood heat is 98 degrees.

5. If you pour some water and alcohol into a large test tube and then shake them together, what three things will be noted?

Answer: (1) On shaking the tube so that the two liquids mix, we shall observe a large number of tiny bubbles being driven off. Ordinary water contains air dissolved in it, and when the alcohol mixes intimately with the water the air is driven out in these bubbles; (2) Heat will be developed as the result of this joining together of the two liquids, and the tube will become perceptibly warmer than another tube containing water only; (3) Equal volumes of the two liquids, when mixed will be found to occupy less space than that of the two separate volumes.

6. What is alcohol? Give some of the uses of alcohol.

Answer. Alcohol is a mobile, colorless liquid, possessing a slight but agreeable spirituous odor, and a pungent taste, and burning with a pale blue, non luminous flame. Its boiling point is lower than water, being about 172 degrees Fahrenheit. Its freezing point is very low. Uses: Alcohol is especially useful as a solvent of organic and inorganic substances. It is used to dissolve balsams, essential oils, fatty acids, resins, soaps, sugars and many drugs like camphor and others.

7. Does alcohol interfere with the natural defences of the body?

Answer. Yes. (1) Alcchol has an affinity for oxygen and thus robs the blood of its loose oxygen which seriously interferes with the cells of the body; (2) Alcohol has a special fondness for water robbing the tissues of this fluid. This accounts for the horrible thirst following drunkenness; (3) Alcohol like other narcotic poisons can penetrate all cell walls with the greatest ease and cause injury.

8. (a) Give the meaning of: Lipoid phagocytes? (b) Who was Antony Van Leeuwenhock? Pasteur? Metchinikoff?

Answers: (a) Lipoid is a substance covering the nerve fibres, which prevents the messages from spreading and from losing their effect. "Phagocytes" are the white corpuscles which fight the disease germs when they enter the body.

(b) Antony Van Leeuwenhock was a Dutchman who discovered the microscope. Pasteur was a French scientist who discovered that some of these germs as seen through the microscope were the cause of sickness. Metchinikoff who followed Pasteur observed that when enemy germs get into the body that nature had already provided a defence army in the white cells or blood corpuscles.

9. What is the effect of alcohol on the blood cells?

Answer. Alcohol shrivels the red blood cells thus lessening their oxygen-carrying capacity. Some cells may be destroyed. The body becomes clogged with wastes because the red blood cells are unable to perform their work properly. Alcohol paralyzes the white blood cells and reduces their power to combat germs thus leaving the body open to disease. This is how alcohol breaks down the defences of the body against disease.

10. What is the effect of alcohol on the nervous system? Alcohol dissolves lipoid and therefore robs the brain and nerves of their ability to function properly. This effect noticed in: 1. Less power of self-control. 2. Less rapidity of thought. 3. Less accuracy of judgment. 4. Less sharpness of sight. 5 Less capacity of muscular action. 6. Less steadiness of hand.

11. Experiment. Take the white of an egg which is most like the human brain of any substance that we can see. Put it in a bottle and pour in some alcohol. Shake together, then notice what effect the alcohol has on the white of the egg.

Answer. The alcohol causes the white of the egg to coagulate.

12. Give some of the chief reasons for the wide spread use of alcohol.

Answers. The chief reasons for the wide-spread use of alcohol are grounded in ignorance and superstition. People believe: 1. That it produces energy for work. 2. That it assists them to bear fatigue to resist exposure and to endure cold. 3. That it dispels sickness, relieves hunger, and soothes the stomach. All these beliefs are false. We have learned that alcohol does none of these things and that on the contrary in every case it does the exact opposite.

13. Why it is the worst possible thing to give anyone suffering from a chill a drink of spirits?

Answer: When a person gets a chill it is often extremely doubtful what illness may develop. Consequently it is unwise to administer any form of alcoholic beverages as it tends to weaken the machinery of the body which has the power to combat disease germs (red and white corpuscles, heart, oxidation, etc.) The principal machinery are the white corpuscles and it is a well-established fact that the effect of alcohol on them is to stop their normal increase and paralyze these which are already there.

14. Hold a cold white plate in an ordinary gas-jet. There will be a rich deposit of soot. Hold a clean plate in an alcoholic flame there is no deposit of soot. This show how valuable alcohol can be when used in the laboratory. Alcohol burns with a pale blue flame making little light but great heat.

15. How is the food value of grain reduced in making beer?

Answer. In malting the diastase is awakened and commences the process of converting starch in the grain to sugar. This lowers the food value by twenty per cent. Mashing hastens and completes the process and reduces food value by a further fifty per cent. Fermentation changes the sugar to alcohol and reduces the food value of the grain by about twenty-seven per cent, leaving less than three per cent in the beer produced.

16. Does alcohol help digestion and warm the body?

Answer. Alcohol hinders digestion by preventing the digestive juices from coming in contact with the food eaten, thereby delaying decomposition. Alcohol affects the digestive juices and weakens the organs that absorb nutriment from the food we eat. Alcohol does not warm the body. It causes the pores of the skin to expand and thus heat escapes. The drinker feels warmer because the blood has been forced to the surface of the body. Actually his body is not as warm as it was before drinking.

FRASER AND THOMPSON

Simon Fraser was a Scot from Glengarry who entered the service of the North West Company and afterwards became a partner. He crossed the Rockies by the Peace River Pass in search of the Columbia River whose mouth had been discovered by some American explorers. He gave the country the name of New Caledonia (now British Columbia) which it retained til 1859. In 1808 he explored to its mouth the swift flowing river which bears his name and was disappointed to discover that it was too far north to be the Columbia. On his was back he explored the Thompson River which he named in honour of his friend.

David Thompson was a Welshman who was astronomer for the North West Company. He explored the Bow River Pass and in 1811 traced the Columbia River to its mouth. He spent the rest of his time at Kootenay House making maps for traders going into the interior. His maps of the mainland of British Columbia and of the Northwest are monuments to his industry and skill.

THE JACOBITE REBELLION

The Jacobites were the followers of James II and his descendants. When the throne passed to the German Kings, the Jacobites were not well pleased and efforts were made by them to restore the Stuarts. The first Jacobite rebellion broke out in 1715 but the Earl of Mar who raised the standard of James Edward, "Pretender" in Scotland was checked by the Duke of Argyle near Stirling while the English supporters of the Stuarts were forced to surrender to the royal army at Preston. The next attempt was made on behalf of Prince Charles Edward, son of the Pretender, in 1745 when King George's troops were engaged in the war of the Austrian Succession. The time was favorable and the rising was formidable. After capturing Edinburgh where he was well received Prince Charlie with his Highlanders defeated the regulars under Sir John Cope at Prestonpans and then made a rapid march into England but the road to London was barred by superior forces and at Derby he was forced to retreat. The hour of defeat came when the Duke of Cumberland mowed down the in 1746. Prince Charles escaped clansmen on the moor of Culloden to France and the House of Hanover was firmly fixed on the throne.

This Department is conducted by the Prince Edward Island Teachers' Federation. Contributions are welcomed and should be addressed to Millar MacFadyen, 8 1-2 Felting St., Charlottetown.

PREPARING FOR THE POST WAR AUTOMOBILE

OSHAWA, April 30th.- Current probabilities appear to indicate that our immediate postwar car will be the 1942 car with such modifications and improvements as can be made without important engineering development or changes in tools, W. A. Wecker, General Manager of General Motors of Canada, declared today. Mr. Wecker added that the speed with which the automobile industry can resume car manufacturing will depend upon how promptly the goverment releases production facilities for this purpose.

The car industries production facilities and its total effort are very closely linked with the country's war production job, Mr. Wecker pointed out. This has a bearing, not only on the kind of car which can be planned for the immediate post-armistice period but also on the time that will be required to turn out vehicles for a public whose needs will be greater than ever before.

The present job he said, is to do all we can to win the war. Therefore to divert any of our productive capacity to planning a post-war car would be inexcusable. The war effort must always come first. The time prior to the cessation of manufacture. It is not anticipated that there will be any scarcity of raw material. The important thing is to convert quickly after goverment releases plant facilities.

to do the necessary development work on something really new, the manpower to provide the essential tooling, the material required for the essential experimental work cannot be spared now.

Mr. Wecker warned there is a danger of the public becoming more and more convinced that as soon as peace is re-established a revolutionary type of motorcar will appear on the streets, whereas "it is likely the so-called postwar car" will be evolutionary in its development.

It is the responsibility of industry of course, to resume commercial activity in the shortest possible time after the war, in order to provide employment at a desirable level but this will depend naturally upon the complete release by the goverment and the armed services of former automotive plants now engaged in war production. It is to be hoped that a quick decision will be made because even then several months must elapse before production of automotive products can be resumed. Under mass production the building of a new product requires much rearrangement of plant and machinery and the installing of new tools. This cannot be done in a moment.

It may be assumed, Mr. Wecker concluded, that the immediate postwar requirement for cars will be much higher than during the year

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As in the last war, our boys of the Canadian Army will be the spearhead of the Allied attack. For this proud assignment they have the latest in tactics and equipment, plus the natural shock-troop propensities of the Canadian soldier. They are comfortably housed, warmly clothed, well paid, given free medical and dental care, and have $40.00 a month clear for each private—plus generous married men's and tradesmen's allowances . . . Select your service. Free training provided. Enlist NOW. Don't delay Victory!

ARTILLERY: Anti-aircarft, anti-tank, field and heavy batteries.
ENGINEERS: Technicians, skilled and semi-skilled tradesmen.
INFANTRY: Signals, machine guns, Q. M. Stores, armorers cooks, drivers.
ARMORED CORPS: Mechanics, drivers, wireless, gun crews.
ORDNANCE: Skilled repair men, drivers, cooks.
ARMY SERVICE CORPS: Drivers, cooks, mechanics, clerks.

HOW TO ENLIST!

Apply to any of these Recruiting Stations: Halifax (Cogswell St. next Hospital), Yarmouth, Kentville, Truro, New Glasgow, Sydney, Charlottetown. Or mark service selected, sign and mail this coupon to District Recruiting Officer, M. D. 6, Halifax, N.S., for free booklet.

Name.....Service.....
Street.....Town.....

In Memoriam

MISS MARY ANN MELLETT

There passed peacefully away after a few days illness in the Prince Edward Island Hospital Miss Mary Ann "Mamie" Mellett, in her 79th year. The late Miss Mellett was born at Union Road, the daughter of the late Mr. and Mrs. Wm. Mellett and spent practically her whole life there, moving to Charlottetown a few years ago with her late brother George where she made many friends.

The deceased was a member of the former Methodist and later United Church, and took an active part in its various activities being for many years the efficient Secretary of the W. M. S.

The late Miss Mellett possessed an artistic nature and painting was her best loved employment. Many homes throughout the country have been brightened and beautified by her handiwork, her paintings also won many prizes at the Provincial Exhibition.

She leaves to mourn one sister Emma (Mrs. Jas. MacMillan,) of Stanhope and one brother Robert of Boston, besides many nephews and nieces and other relatives.

The funeral took place on April 6th from the McLean Funeral Home after a short service by the Rev. Carlyle Webster thence to Union Road Church where a funeral service was conducted by Rev. T. A. Wilson. Interment was in the family plot in Union Road Cemetery.

There were many beautiful floral tributes among them being a spray from the W. M. S. of Union Road of which the deceased was a life long member.

The pall bearers were Thomas Prowse, Geo. Abbott, Beecher Bryenton, John MacKinnon, Harry Newman and Alph Mellett.

BRINGING UP FATHER — By George McManus

TIPPY AND "CAP" STUBBS — By Edwina

TILLIE THE TOILER — A SAVING COMBINATION. — By Webster