THE EDUCATIONAL HORIZON

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

SEASON'S GREETINGS

Once again it is our privilege and pleasure to extend the most cordial Christmas Greetings to the readers of the Educational Horizon and to those who are near and dear to them.

Christmas is the one time of year when we are able to forget the anxieties and concentrate upon happy family reunions. To those of you who are weighed down with anxiety for any reason, may you enter into the spirit of the occasion with courage and determination, for to radiate joy is a real contribution to society under any or all conditions.

Coupled with our Best Wishes are our warmest thanks to all those who have contributed to the Horizon, and to the large number of readers who have written us such encouraging letters.

Again many thanks for your ever increasing support and best wishes for a happy and prosperous New Year.

THE CANADIAN RED CROSS JUNIOR

This is a very attractive magazine. Besides giving news of what Junior Branches are doing in Canada and in other parts of the world, it gives interesting stories of children in other lands, nature stories, health stories, and stories of outstanding Canadian men and women, and seasonal features in verse and illustrations. Its purposes are to unite the children of Canada in a common enterprise and link them to the Red Cross Juniors of other countries. We would ask all teachers to encourage the members of their Junior Red Cross branch to buy one to take home.

For many years it has been the hope and the objective of the Canadian Teachers' Federation that a central office with a full time General Secretary would be established in the City of Ottawa. This hope has been finally realized and on January 12, 1948, the Canadian Teachers' Federation central office will be opened officially in Room 8 of the Normal School Building, Elgin Street, Ottawa. At that time Mr. George G. Croskery, who was unanimously elected full-time General Secretary at the Canadian Teachers' Federation convention last August, will take over his duties.

George, formerly Principal of the Mutchmor School in Ottawa and now President of the Ontario Public School Men Teachers' Federation, has been active in teachers' organization work for many years. He is a member of the Board of Governors of the Ontario Teachers' Federation, a Director of the Ottawa Kiwanis Club, and an Advisory Director of the Ottawa Y.M.C.A., as well as the Programme Director of one of Ontario's largest Y. M. C. A. boys summer camps George is noted for his clarity of thought and preciseness of expression. With these qualifications we can foresee a brilliant future not only for our new secretary by also for the Canadian Teachers' Federation.

MR. GEORGE G. CROSKERY

General Secretary of the C. T. F.

BURMA

Burma, one of Great Britain's Far Eastern colonies, has been granted full independence by the British Parliament. January 6, 1948, is the date set when Burma becomes an independent country. The new state will be known as the Union of Burma. Britain and Burma have made public a treaty with the provisional government of Burma. The treaty provides that: 1. Britain may maintain military missions in Burma; 2. Britain gives Burma 37 small vessels; and, 3. Britain cancels £15,000,000 ($60,000,000 of Burmese debts to her.

Burma covers an area of 262,000 square miles. Its population 17,000,000. Mongolian race.

More than 80 per cent of the people are farmers who live in small rural villages. There are about 50 houses in each village. Before the war, Burma was the world's leading rice exporter. Tropical fruits and vegetables grow well in the warm, rainy climate; and Burma also produces nuts, rubber, and cotton. The water buffalo is the main work animal on the farms. Oil resources have been found and silver, tin, and coal are awaiting development. Gold lies on the river bottoms, and rubies, jade, and sapphires have been discovered.

Rangoon, the capital is situated on the delta of the Irrawaddy river. It is famous for its gay bazaars, and for monasteries and pagodas of carved teakwood. It is one of the greatest rice markets of the world. A famous shrine ,sacred to Buddha, is located in the city.

HISTORY OF EDUCATION ON P. E. I.

Many of the benefits to the teachers were brought about by the provincial union of teachers, the Prince Edward Island Teachers' Federation. This organization has striven constantly for the improvement of educational conditions since its formation in 1880. It called a strike of all its members in 1929, nine years after the teachers of Prince of Wales College had carried on a successful strike for higher pay. Due to the lack of support within the union and among its leaders, the strike was not successful. Despite its apparent failure, the attempt helped to arouse public interest in education and, in this way, may have done great good.

The Teachers' Federation, in conjunction with the Board of Education, began a system of superannuation benefits in 1931. The amount of such payment depends upon the number of years of service, the class of license, and the salary received. Another important contribution to educational progress arose out of a suggestion by C. F. Hine President of the Teachers' Federation, that news and views of interest to teachers and all others seeking the advancement of education, should be published regularly in a local newspaper. With the invaluable assistance of Mr. Burnett, editor of the Guardian of the Gulf, Mr. Hine in 1935 began a weekly column, The Educational Horizon. This was continued under the editorship of George Hart and Harold Lawton By this means, public interest in our educational program has been aroused in no small measure.

INSECTS

The four stages of a butterfly's life and of a moth's life are:

First, there is an egg. This hatches into a caterpillar, which molts as it grows larger. A moth caterpillar spins a cocoon, and a butterfly caterpillar makes a chrysalis. From the chrysalis comes a butterfly, and from the cocoon comes a moth. The butterfly and the moth are both as big as they will ever be as soon as their wings are dry.

Bees, ants, and flies are some of the other insects that have four stages to their lives. Eggs of the honeybees hatch in about three days. The bee is then just a tiny wormlike animal. In a few days it spins a thin cocoon. Several days later, the bee hatches into a full-grown bee.

The common housefly takes about eleven days to change from an egg to a full-grown fly. A housefly is like a butterfly. As soon as it has wings, it is as large as it will ever be. A little fly does not grow to be a big fly. All insects go through changes as they grow up, but they do not all have four stages in their lives as the butterfly and moth do.

In late summer and early autumn, the grasshopper lays a little case full of eggs in the ground. In the spring, the eggs hatch out into little grasshoppers. They have small bodies long legs, and no wings at all. After eating grass for a few days, they molt their skins just as caterpillars do. They molt their skins five times while they are growing. After the fifth time they are full grown insects with wings. A cricket is another insect that grows up in the way that a grasshopper does. A cricket too, has only three stages in its life. First the egg, then there is a young cricket with no wings. After molting the cricket is full grown with wings.

ALCOHOL (Continued)

3. Effects of Alcohol on the Brain and Nervous System.

(a) How it does its harm.

A person who behaves according to socially accepted standards has brain control over his actions. Alcohol, being a narcotic, may impair or remove this control. When alcohol dulls the brain and nerves, a person. (1) Loses judgment in what he is doing or saying. (2) Makes observations and movements with lessened efficiency. (3) Is less accurate in work which requires thinking and alertness. (b) Examples of its effects.

(1) A famous mountain climber found that he made a slower ascent after drinking alcohol. (2) Experiments with typists show increase in errors and lessened speed when even a moderate amount of alcohol is taken. (3) The likelihood of automobile accidents is increased when the driver is only slightly under the effects of alcohol. Alcohol is directly responsible for about 10 per cent of all fatal highway traffic accidents. (4) Many crimes are committed under the influence of alcohol.

(4) Other Effects of Alcohol on the Body.

(a) Drinking alcohol causes loss of body heat.

(1) It makes blood vessels in the skin grow larger, thus allowing more blood to pass near body surface. Heat is lost in this way.

(2) Men who drink alcoholic beverages to keep warm while working outdoors in the cold actually will be colder after the first sensations of glowing warmth have passed.

THE ECONOMIC IMPORTANCE OF INSECTS (Continued)

We owe to insects many useful processes and products such as: 1. Pollination of flower (bees, butterflies, moths, certain types of flies.)

Furnishing of silk (silk moth cocoon).

3. Furnishing of honey and wax (bees).

4. Furnishing of shellac (lac insect).

5. Furnishing of red dye (cochineal insect).

6. Furnishings of material for ink (gall insects).

7. Action as scavengers (maggots, beetles).

8. Killing of injurious insects (ladybugs, ichneumon flies.)

THE BILE

The liver is the largest gland in the body. It is located between the diaphragm and stomach, thus being the uppermost of the abdominal organs. The secretion of the liver is called bile and is a thick brown liquid, of which about one quart is produced daily. This is stored temporarily in a sac called the gall or bile sac. Bile has several important functions, as follows: 1. Bile is, itself, partly waste substance removed from the blood. 2. It aids in digestion and absorption of fats. 3. It stimulates the action of the intestine. 4. It tends to prevent decay of intestinal contents. The chief digestive action of the bile is on the fats, which it makes into a milk-like emulsion to be absorbed by the lacteals. Another important function of the liver is the storage of excess Carbohydrate in the form of glycogen or liver starch which the body may draw upon a source of energy in emergencies. The liver then excretes wastes, secretes a digestive fluid, and stores food.

MAGNETS

A few years ago all magnets were made of steel or iron. Then scientists discovered a new kind of magnet. This new magnet has in it three other metals besides iron. The metals are aluminum, nickel, and cobalt. This magnet gets its name alnico from the first two letters in each of those three words. This kind of magnet is very strong. It will pick up a piece of iron or steel many times its own size. Lodestone is a kind of rock that has iron in it. It is a magnet, too. A magnet will pick up only certain kinds of things. By doing an experiment find out what kinds of things a magnet will pick up. Make another list of the things it will not pick up. The things, which the magnet picked up, have iron or steel in them. We call iron and steel magnetic materials. A magnet will pick up only things made of iron, steel, and a few other magnetic materials such as nickel and cobalt. All materials which a magnet will not pick up are called non-magnetic materials. A magnet attracts iron and steel. When we say this, we mean that a magnet pulls iron and steel towards it.

Perhaps you can think of an experiment to show that the force of a magnet will go through paper, cardboard and other magnetic materials. How can you find out whether a thing is made of magnetic material or non-magnetic material?

ELECTRIC EELS

Of all the electric fishes, the best known both by scientists and by laymen, is the electric eel. These living dynamos hail from Africa, South America, and the temperate and tropical seas. Fossil fishes from deposits laid down over a hundred million years ago have organs so similar to the electric ones of living forms that there is no doubt they, too, possessed electric powers. Michael Faraday who had worked on electric fishes, did determine that externally the current from an electric eel flows from head to tail. Mr. C. W. Coates found out that the eel was largely composed of a very special kind of flesh: electric tissue. All its vital organs stomach, intestine, liver, and so forth are confined to the front fifth of its body, and even its vent is located under the chin, the remainder of its elongate body is principally occupied by three pairs of electric organs, measured by volume, nearly half of the fish is electric tissue. These organs are, in turn, made up of [illegible] units, which are separated [illegible] walls of electrically resistant tissue and act very similarly to cells in a storage battery. They are the producers of the electricity, each one creating about one tenth of a volt. It is by hooking these tiny batteries together in series, so to speak, that the eel builds up its powerful discharge. Just how it does this, throwing thousands of "switches" on and off hundreds of times a second we do not know. This is one of the mysteries of the electric eel.

Another mystery of the electric eel.

Another mystery of the electric eel is its sensitivity to electric currents. Each fish is aware of each other's discharges.

The natural food of electric eels consists of fishes and other small aquatic animals which they stun before swallowing whole. Although they can be taught in captivity to eat cut-up raw fish and strips of beef when first caught they will eat only live fish.

While feeding eels Mr. Coates discovered that when one fish discharged, stunning its prey, all the other eels which he had in the tank came over, to see what was going on, and they always went to the spot where the feeding eel had discharged, even if it had subsequently moved away.

During the war, it became necessary to obtain large amounts of cholinesterase ,which cannot yet be synthetically produced but must be extracted from living tissue. Ounce for ounce, the electric organs of the eel are far richer in cholinesterase than any other known tissue; so when the Chemical Warfare Service called for large amounts of it in order to study the effects of a new deadly nerve gas they were investigating scores of eels were sacrificed to provide them with the precious substance.

One of the key substances in the production of electric energy in electric fishes, and in the production of a nervous impulse too, is cholinesterase.

HEALTH IS YOUR BUSINESS!

Yes, health is everybody's business — and members of the teaching profession are in the exceptional position where they can do much about this business of health. The teacher of today has the greatest opportunity of any individual working outside the intimate family circle to shape the minds and lives of human beings — and good health has much to do with living.

Teachers, of course, should continually emphasizes to their pupils the value of good health, but they will have a chance to really go "all out" on the subject during the first week of next February which will be observed as Canada's fourth annual.

NATIONAL HEALTH WEEK

"National Health Week" — February 1-7—is an observance sponsored by the

HEALTH LEAGUE OF CANADA

in cooperation with official departments of education and health. It is designed to draw the attention of all Canadians to the benefits of good health and the appalling costs of sickness, much of which is preventable.

For further information, please write to—

The Secretary
National Health Week Committee
Health League of Canada.
111 Avenue Road,
Toronto 5, Ontario.

TEACHING READING

by Mrs. L. Ross, Model School

In two previous articles I dealt with the preparations for reading, the actual reading, and also the re-reading. Now follows a very important step — that of building up an increasing ability to recognize new words, interpret new ideas and of giving practice in making associations, comparisons and contrasts.

Much is gained by the conscientious use of the workbooks or "Think and Do" books that accompany the Basic Readers. Elsewhere in this column, you will find excellent examples of different types of language work that should be used as "Related Practice." Careful perusal of children's answers will tell you what difficulties need re—teaching and more drill.

For written composition following a lesson where reproduction is desired, let the children make booklets for their stories. These

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King Michael of Romania and Princess Anne of Bourbon-Parma (above) tour a British movie studio during their recent trip to London for the wedding of Princess Elizabeth and Prince Philip. Reports that they soon will announce their engagement were denied by King Michael, now in Lausanne, Switzerland.