

THE EDUCATIONAL HORIZON

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

THE WORLD'S LARGEST TELESCOPE

Mount Palomar Observatory with its great dome open to the sky. The home of the world's largest telescope is on Palomar Mountain in San Jacinto range in Southern California. In November, 1947, the 200 inch mirror, which is the life of the telescope, was safely transported from Pasadena to the top of Palomar. The 200-inch telescope is a triumph not only of scientific genius, but of engineering skill and precision. This colossal artificial eye gathers 1,000,000 times as much light as a single human eye. The second largest telescope is the 100 inch telescope at Mount Wilson, California. As long ago as 1590, the principle of a double microscope had been realized. The idea came to two Dutch spectacle-makers, Johann and Zacharias Janssen.

They received the first idea from their children, who happened to be playing with some lenses. They were holding the lenses up to look through them at various objects, when one placed a con-

convex lens near his eye and held a concave lens some distance away in the same line. Suddenly he cried that the vane of the church spire had come nearer. His father came out and found that by looking through the lenses as his son was doing he saw the vane greatly magnified and brought very near him. The spectacle-maker fixed the glasses on a board, and thus made the first telescope, which he presented to Prince Maurice of Nassau. Galileo, hearing of it, made a telescope with the lenses fitted into the ends of a piece of organ pipe. It magnified only three-fold, but Galileo kept working until he had made a telescope that magnified 32 times. Through it he discovered the mountains of the moon, the earth-shine on the moon, and four of Jupiter's moons. His telescopes were in great demand all over Europe. Today the double microscope is one of the most efficient and perfect instruments in the world.

SHORT RULES IN ARITHMETIC

How to find the number of common brick in a wall. Multiply the length of the wall in feet by the height in feet, and that by its thickness in feet, and then multiply that result by 16, and the product will be the number of bricks in the wall.

How to find the number of shingles required for a roof — Multiply the length of the roof by twice the length of one rafter, and multiply the result by 8 if the shingles are to be exposed 4 1-2, or by 7 if the shingles are to be exposed 5 inches to the weather, and you will have the number of shingles required.

To find the number of tons in a row. Multiply the length of the row in feet by the width in feet,

and that by the height in feet and divide the result by 400 if the hay is well settled (or by 500 for new hay), and you have the number of tons in the mow.

How to find the contents of barrels and casks. — Add the diameters at the bung and head in inches, and divide the sum by two, and the result will be the average diameter. Now multiply this result by itself and multiply the product by the length of the barrel or cask in inches. Multiply this result again by 34, and out of the four right hand figures, and you will have the number of gallons.

With an apple? One rural community boasts the following traffic sign: "Go slow. Beware school children crossing here. Wait for the teacher."

PRINCIPLE OF LEADERSHIP

A leader in a democracy must first of all be intelligent to the degree of being able to master the forces of contemporary society and be able to direct them towards the desired goals of that society. He must possess outstanding qualities of character and integrity, because in his capacity of representation he is working not for self alone but for many thousands of other citizens. Youth are hero worshippers. If leaders do not set right patterns, cynicism follows in youth. A leader, therefore, cannot be a mere follower of the opinion of the masses, but he must assume the responsibility for

the creation of the right opinions of the masses and help them to make the right choice. A fundamental factor in the training of youth for democratic citizenship grows out of the principle of the freedom of thought and expression. That technique should be developed in school. Indocination and object obedience leads to stagnation, moral stultification and tyranny.

Freedom of thought guarantees right of opposition and the right of minority opinion, the right of the majority to rule. It is the duty of the minority to obey so long as their rights of opposition are recognized.

EDUCATION WEEK

At the invitation of the Canadian Teachers' Federation representatives of a number of national organizations interested in education met in Ottawa, Oct. 12 to plan for the observance of Canadian Education Week, March 5-11, 1950.

Since 1935 the Canadian Teachers' Federation has promoted and directed this special project to focus attention on education. The purpose of Education Week is to help parents learn more about modern school practices, to ensure a better understanding of the aims and needs of education and to emphasize to the public that modern education is not confined to the school, but it is a continuing process in which we all have responsibilities.

It was agreed that Education Week, 1950, would be sponsored jointly by:—

Canadian Teachers' Federation

Canadian Federation of Home and School
Canadian School Trustees Association
National Council of Women
Canadian Legion
Canadian Manufacturers' Association
Canadian Chamber of Commerce
Trades and Labour Congress of Canada
Canadian Congress of Labour
Canadian Federation of Agriculture

The general theme is Education — Everybody's Business with the daily topics as follows—

Sunday, March 5—The Church
Monday, March 6—The Home
Tuesday, March 7—The School
Wednesday, March 8—The Farm
Thursday, March 9 — Industry and Commerce
Friday, March 10—Labour
Saturday, March 11 — The Community.

STARTING RIGHT

It takes a hundred years to grow an oak tree, and only a few weeks to grow a squash. But who would want to be a squash? A lesson in steady, patient growth continuing through the years, and producing at length a manhood or womanhood which can withstand the heat and cold and the winds of adversity; giving shelter to weaker things, enriching the world with strong enduring deeds, and making the world more beautiful while it lives. How to strike deep, strong roots so that we may be as the oak. "There is always room at the top." It is simply a statement of the bare fact that there are in the world a vast number of people who can do an easy

job badly, a smaller but still numerous group who can do an easy job well, and a very small number who can do a hard job excellently. How should a child at school prepare himself for the upper groups? By practicing doing hard jobs well until he can do them excellently. "We build the ladder by which we rise." No matter how rich we may be born, no matter how fine a farm or how big a business Dad may have waiting for us to manage, we shall have to climb to success and happiness in life. Perhaps the commonest mistakes that young people make in starting life are: first, thinking that they can rise on the ladder Dad has built, and sec-

ondly, thinking they can rise without a ladder at all. The boy sees his father living cheerfully from day to day, apparently never rushed, spending a good deal of time on things that seem easy and even idle; and the boy thinks to himself, "Dad's job is a snap!" He forgets that in the years gone by Dad was building his ladder, a ladder made of industrious habits, training in using his head, training in doing a job so well that it would not have to be done again. That is why Dad's job seems so easy. But if the boy thinks he can take over Dad's job without building his own ladder, he is woefully mistaken. He will soon find himself tired and discouraged, his

head perplexed with problems, and himself surrounded with badly-done jobs that have to be patched up or done over again. If you want to rise to prosperity and happiness in the world you must build the ladder by which to rise, and your school training is your chance. We as teachers must remember we are training children not merely to fit nicely and politely into the school system and to do you credit by their examination marks; we are training them for useful and competent living in the world. The teaching of history and the rest are going to enrich the pupil's life years from now, if we keep thinking of his life's needs while we teach.

HYGIENE

The brain is the most important part of the human system, and its functions well we must carefully attend to the following rules:

1. Have pure thoughts, and ennobling ideals. 2. Have regular systematic work. 3. Have regular change of occupation. Younger children should change at shorter intervals. 4. Have a sound mind in a sound body. 5. Avoid long hours, over-work, and worry. 6. Avoid late hours. Have enough sleep. Children require more sleep than adults. Girls require

more sleep than boys. Brain workers are more than labourers. 7. Choose those subjects which are best adapted to brain development and take the work up in logical order. Information is not everything. 8. Lack of mental exercise causes the brain to become weak and worthless. 9. Do not habitually use narcotics to deaden pain. Seek the cause and apply the remedy. 10. Avoid all alcoholic beverages and tobacco. 11. Have plenty of good sunlight and reflect the light sleep. Children require more pleasant books and pleasant words.

EDUCATION

The earliest schools in England were presided over by monks in the monasteries, where boys and young men were trained as priests or monks; there were such schools at Canterbury and York in the seventh and eighth centuries. The Normans were great builders of churches and cathedrals; connected with these churches were choir schools, to which promising children were sent to be trained by the monks and clergy. The teaching was mostly based on Latin, and the greater part of the learning was from memory.

Gloucester Hall (now Worcester College), Oxford, was founded in 1283 as a residence for thirteen monks, to be chosen out of the brotherhood at Gloucester and sent to study at Oxford; the building was extended in 1298 to receive more students, and parts of this building still remain. The Universities of Oxford and Cambridge were founded as centres to promote learning in the thirteenth century, and in the reign of Edward III Oxford was the most famous seat of learning in Europe. But up to the beginning of the sixteenth century, when in the reign of Henry VIII the monasteries were closed, most of the education of the ordinary people was given by the monks and clergy, so only a very small proportion of the people had any book learning at all. For the first 1400 years this was rare for even a king, or a nobleman, in England to be able to do more than sign his own name; the clergy was the only general class of people who could read and write, which in a measure accounted for their power and influence. John Colet, an earnest divine and preacher of the new Learning of the Reformation; educated at Oxford University and a noted educationist, refounded and endowed St. Paul's School, which was completed in 1512; the Company of Merchants were the trustees, which was the first instance of managers who were not clergy. When Henry suppressed the monasteries many of the old schools were disbanded, so Edward VI had eighteen Grammar schools built in different parts of the country, and gradually more schools were erected, chiefly by the merchants. Latin was still the principal subject of instruction.

Little had been done for the education of the children of the poorer people for several years later, but now the Church of England and other religious bodies carried on the education of the people. The Government assisted these religious societies in 1833 by making grants of money for the education of children, but still during the first half of the nineteenth century.

TOOTHBRUSHES

Anton Carlson, eminent physiologist, speaks out for sound health teaching in our schools. Reported by Julia P. Hannon, staff writer, Connecticut Teacher.

Starving with clean hands?

CLEAN HANDS CONTEST
BOYS - BOYS

OR HEALTH?

physiology for more than 50 years. He's professor emeritus at the University of Chicago. "Retired nine years ago from nothing but my salary," he says.

We May Starve as We Eat
Professor Carlson can be tolerant about toothbrushes, but not

about what schoolteachers are not doing for the health of the American people. He blames educators for much of the nation's present sad state of health—acute malnutrition on three square meals a day.

When Dr. Carlson talks health education, he isn't talking about clean-hands contests, or seminars on sex education, or anti-alcoholism campaigns, or first-aid courses. He's talking about the study of the nutritional welfare of man. He claims that's the most important aspect of health education — and still the most neglected.

Studies of family diets in the United States show that about 100 million Americans may be living, or dying, on inadequate diets. If this is true, why?

Partly, Dr. Carlson says, because:

1. We are snobs about our food. For instance, we demand "pure, white" bread; therefore we "purify" our flour and shunt the most valuable part of the grain into the mouths of chickens, cattle, and hogs.
2. We have to process much of our food for storage, and some food values are diminished unavoidably by processing.
3. We reach too often for a candy bar and not often enough for a raw apple.
4. But when we reach for a raw apple we demand one without a worm in it, so we spray our apple trees with poison. There's a question whether the worm wouldn't be a better addition to our diet.
5. Our ingenious chemists have discovered how to take certain elements out of our natural foods. Now they are busy discovering how to put them back in again; it might be just as well if they left them right there in the first place.

The scientist's knowledge of the relationship of foods to a healthy body has increased enormously in the last 50 years, but this knowledge hasn't seeped through very effectively to the Man on the Street.

We could still eat right if we Americans weren't so ignorant of what makes an adequate diet; if we did something about what refining, processing, and purifying does to our natural foods; and if we weren't such suckers for extravagant and misleading advertising.

Fill in the blanks in the following sentences: 1. James I believed in the — of Kings. 2. The country gentlemen who refused to pay shipmoney was —. 3. Cromwell's soldiers were called —. 4. When Charles I entered the House of Commons the members shouted — of Hampden. 5. Charles was killed at the battle of —. 6. When wealthy Englishmen were compelled to loan money to the King it was known as a —. 7. When Charles I asked Parliament for money they drew up the famous —. 8. The Parliament that lasted only three weeks is known as the —. 9. When Charles I tried to arrest certain members of Parliament in the Commons he found they had fled to —. 10. The father of Charles was —. 11. The military leader mainly responsible for the defeat of Charles I was —. 12. In the Civil War the city of London in general favoured the side of —.

WHICH IS BOUGHT MORE OFTEN?



WHICH IS BOUGHT MORE OFTEN?

Make a little scientific expedition to your supermarket. Dr. Carlson suggests. Ask the grocer for the ratio of his sales of white bread to whole grain breads. (And if the wrapper on the white bread says "enriched", just remember that you can't enrich what isn't already rich, and white flour is already "poor" because refining has robbed it of some of its food values.) Count up the number of purified, refined, or processed foods offered for sale. How many natural foods? From your findings, make your own deductions as to the nation's food habits.

The Case Against the Schools

Estimate the number of customers having had some possible contact with public school education, and consider whether there is some justification for Dr. Carlson's charge. In pungent, salty phrases — emphasizing his points with staccato jabs of an ancient brier pipe — he states his case against the schools:

Teachers don't know enough about nutrition, they don't know how to teach it, and they share the popular stupid belief that pre-

servation of our health is a problem that belongs solely to the doctors anyway.

English, our national language, is a required subject in our schools and colleges, but the study of our bodies — the "molders of our mentality" — isn't really taught anywhere. Where it is attempted, we emphasize memorizing from a book rather than acquiring an understanding of the human body.

This is one reason why the American people have become "sitting ducks for all the quacks in Christendom," says Dr. Carlson.

Nervous instability is rapidly becoming our national disease. Poor diet may be one of the chief causes of this condition, and Dr. Carlson lays the blame for our poor eating habits right on the door mat of our public schools.

Having thus placed the blame where he most emphatically believes it belongs, the professor proceeds to raise some hope for the future.

What We Can Do

American educators can apply remedial measures to their antiquated systems of health education.

Where do we begin?

With the teacher. Dr. Carlson believes the American teacher is above average intelligence and that if someone can wake up to her responsibility, she can and will do something about it. But she has to know nutrition and she has to know how to teach.

When do we begin?

Right now, and we begin with the five-year-old child. A little child's curiosity makes it a cinch to interest him in understanding his physical machinery. Dr. Carlson claims we underestimate the mental capacity of our children, anyway.

Children, even the primary youngsters can understand health facts told simply and accompanied with plenty of laboratory demonstrations. The children will understand if the teacher understands and has the skill to demonstrate.

What do we teach?

Understanding of the human body, its needs for growth and health, and how foods can meet these needs. That care of the body is chiefly the responsibility of the individual, not of the doctor.

We unlock the kitchen door of the home economics department and let the study of foods become a major concern of everyone from kindergarten through college, vocational school and adult education class.

What do we not do?

We don't indulge in our usual tendency of going to extremes. We don't overemphasize minor details of the total picture. Yes, vitamins are important, but we don't burden Joey with the idea that if he doesn't eat a perfectly balanced breakfast, he'll develop a vitamin deficiency before noon. He won't. An adult man in average good health can go without any food whatever for at least 40 days without showing any recognizable vitamin deficiency.

It's not our vitamin deficiency the professor is especially concerned about; it's our protein deficiency that distresses him greatly. We eat too much starch and too much sugar. He says, "For heaven's sake, do something about this ever-lasting candy, candy, candy habit!"

School hot lunch programs are fine, but we don't stop there; we make them more valuable by using them as springboards to wiser breakfasts, dinners, suppers, and between-meal snacks for 365 days of the year.

We accept graciously all those useful free health materials, but we carefully screen commercial offerings, so we don't find ourselves innocent promoters of "artistic lying."

Anton Carlson, wise with many years of distinguished service to science, is positive that we educators are not doing the job we should for the best interests of our national health. He's equally positive that we can do the job. He's telling us that it's time for us to wake up and begin doing it!

R. C. M. P. WAS SANTA TO REFUGEES, NEEDY

WINNIPEG, Dec. 28 — (CP) — The bright red coat of the Mountie turned into the bright red coat of Santa Claus for underprivileged Manitoba children this winter. Some 800 individual toys, made by personnel of "D" Division, R. C. M. P., at Winnipeg, were dis-



WIN NEW YORK FILM CRITICS' AWARDS —

Best actor and actress of 1949, according to New York film critics, were Broderick Crawford and Olivia de Havilland, above. Crawford was selected for his role in "All the Kings Men", which was voted best picture of the year. Miss de Havilland was picked for her performance in "The Heiress". She won the same award last year for her role in "The Snake Pit."

refugee families which arrived here recently from stricken areas of Europe.

TORONTO INDUSTRIES HIT

TORONTO, Dec. 29 — (CP) — Toronto industries will have to pay about 10 per cent more for their coal and some of them may have to shut down if the threatened United States coal strike materializes, Toronto fuel dealers said today. J. H. Faith of the Emu-Hanna Coal Company, said some sizes of coal are in sufficient supply to last until opening of navigation in April but others will have to be shipped in by rail beginning next month. A shut-down by John L. Lewis' United Mine Workers from mid-September to mid-November resulted in less than normal deliveries to Canada by ship before navigation closed, he said.

distributed at Christmas to needy children throughout the province.

Representing hundreds of hours of volunteer labor, the toys included sleighs, dolls, rocking horses and almost everything a child could want. They were made by officers, men and secretarial staff of the division, and were handed out free.

Though run by the local detachment as in past years, support for the project came from all over the province. Rural detachments of the force contributed financially, while local business firms and individuals supplied paint, wood and cloth.

Distribution was handled largely by charitable institutions, but in some cases the R. C. M. P. made personal delivery of the toys. Lists of needy families all over the province were compiled to facilitate the program, and they included many new names—representing

NAPOLEON AND UNCLE ELBY

by Gifford McBride



GOLLY, UNCLE ELBY! THERE'S SOMEBODY HANGING AROUND NAPOLEON'S HOUSE. HE LOOKS KINDA SCAREY!



SINISTER SORT OF CHAP, EH? I'LL TAKE A LOOK!

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Fire, Auto, Life, Accident, Sickness
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Winter's Worst Hazard: SKIDDING

In rolling hills with woods, curves and cuts, beware of unexpected ice spots. The roadway may be entirely clear except in low and shady spots. There death lurks.

FIGHT COLDS THIS Easy WAY

Take a HOT MUSTARD BATH

Starving with clean hands?

If you want to waste a few minutes each day on toothbrush drill — materials supplied free by the Tidyteeth Toothbrush Company — it's all right with Anton Carlson. The toothbrush is a modern gadget that probably doesn't do any harm, he says.

But if you're really concerned about Joey's health, you'd better do something about his diet, and to Dr. Carlson that doesn't mean telling Joey to run down to the corner drugstore for a bottle of Kure-All Vitamin Pills.

Anton J. Carlson is a frosty-voiced, Swedish-born teacher.

Dissolve 2 or 3 tablespoonfuls of mustard in a little cold water and pour it into your hot bath. After the bath... a brisk rub-down... then off to bed for a good night's sleep.

Colmans' D.S.F. MUSTARD

"If Cripps don't put the bite on Wall-street for dollars, he'll put the British on vegetables — show this Pezon where he gets off!"