Seeing With the Fingers

The problem of helping the blind to help themselves has become especially pressing during the last few years, owing to the number of men who lost their sight in the war, and scientists have been laboring upon it incessantly.

Sight cannot be restored to injured eyes; but a French professor has just announced a really startling discovery. He is training blinded men to see, not through their eyes, but through their finger-tips!

He was led to his discovery in this way. He found that many of the lower creatures, which had no eyes and had always been supposed sightless, could certainly distinguish light from darkness, and could see outlines well enough to take cover if any hostile insect or animal approached. On examining them carefully he came to the conclusion that so far from having no eyes, they were all eyes!

The human eye itself is nothing more than a thickening of the skin over the end of a nerve. This thickening makes a lens, which forces light on to the nerve running to the brain. Now, in worms and other eyeless creatures the skin is covered with tiny hillocks, each of which has its nerve. It is by means of these hillocks that the worm sees.

In men two of the hillocks have become enlarged and perfected into a pair of true eyes. But the others are there——though owing to perhaps hundreds of thousands of years of disuse they have forgotten how to act. A piece of skin seen under a powerful microscope looks like a landscape in mountainous country. Our skins contain millions of these nerve-bearing hillocks.

Thousands of years ago, before two of them developed into eyes, we saw by means of them. If a person is blinded, the hillocks which have forgotten their original duty may be re-educated until a kind of sight is possible.

We find in the finger-tips the most promising parts for re-education. They have developed a very fine sense of touch, and they contain a greater proportion of tiny nerves than any other part of the body. The process of re-education, though laborious, is quite simple. The blinded person is placed in a dark room, where intense light is directed upon his outstretched fingers. After a time he finds that he can distinguish light from darkness. The light used is made gradually less and less intense until eventually quite an ordinary amount of illumination can be detected.

The process is continued until not only light but also the outlines of bodies are perceived by the patient. This is as far as we can go at present, but it is indeed a great advance, for it means the blinded man is no longer in complete and utter darkness. His fingers enable him to see a faint glimmering of the world of light, and as by their aid he can distinguish shadowy outlines he becomes able to make his way about without the risk of cannoning into obstacles or of running into people who do not realize that he is sightless.

Homesickness of the Soul.

"Old age is a sadly lonesome experience, dominie," said Edward Morton, as he settled his stooping frame rheumatically into a chair beside his old friend in front of the study fire.

"It's curious you should have made that remark, Edward," replied the minister. "I've just laid down John Burrough's account of a visit to Carlyle one Sunday afternoon in Cheyne Row, London. He says, 'A kind of homesickness of the soul was on Carlyle, and it deepened with age.' You remember Holmes's poem about 'The last leaf upon the tree,' and the loneliness that came with that experience?

"I've thought a great deal about it myself. I suspect it has something to do with what the Bible says about our having here no continuing city. As old St. Augustine said, 'the soul's made for God.' Do you remember the story of Abd-er-Rahman, the first Moorish caliph in Spain? He had been bred by the banks of the Euphrates. There was no great beauty in the country where he spent his childhood and his Spanish home in the old city of Cordova seems to have been a fairy palace of delight. Yet among all the groves and towers and fountains of Cordova, Abder-Rahman was miserable—it was banishment. And when he got a palm tree from his Syrian home and planted it in his Spanish garden an old Arabic ballad tells us that he could never look at it without tears. I wonder if the homesickness of old age isn't an argument for the immortality of the soul, a sign that that which 'drew from out the boundless deep' is longing to return home? I should feel downhearted if mother earth held complete satisfaction for the soul as old age came on. I'm rather glad of the home-sickness of the soul."

As to the Kilt.

The exact origin of that interesting garment, the kilt, is lost in the mist of antiquity although its history goes back to the time when it was a part of the national dress of Ireland and Wales, as well as of Scotland, says an English writer. In the Middle Ages the kilt was a kind of shirt called a "lenn." It was worn with a jacket and a single piece of cloth thrown over the shoulders. In those days, although the "lenn" was colored, it had nothing like the variety of color of the present-day plaids.

The Scot found that this garment, reaching below the knees, interfered with his freedom of movement in a fight or an athletic game, and so he tucked or kilted it just above his knees.

Back in the Middle Ages the Scottish clans were always fighting among themselves, and each clan found it advisible to wear a distinctive color. Why tartans were chosen no one knows. As a matter of fact, tartans were not very common even as late as the early eighteenth century.

In 1747 a special act—the Highland Garb Act—was passed in the effort to abolish the costume of the Scottish Highlanders, but fortunately its only effect was to make the kilt more popular than ever.

Benefits of Trees on Prairie Farms.

There are several ways in which plantations of trees benefit the prairie settler, the most important of which are the following:—

1. They afford shelter from the wind to crops, buildings, and stock.

2. They collect and hold the snow during the winter, preventing it from banking up around buildings.

3. They preserve and retain the moisture in the soil by breaking the force of the hot winds in summer, this retarding evaporation. The snow also held by them in the winter, melting in the spring, furnishes a great deal of moisture to the land in the immediate vicinity which otherwise it would not retain.

4. Plantations will supply fuel, fencing material, and wood for repairs.

5. They are of æsthetic value, beautifying the landscape and making life on the prairie much more pleasant and less monotonous.

6. They greatly add to the money value of the farm. There is not the slightest doubt that a farm which had on it a well managed and productive woodlot of a few acres would, other conditions considered equal, sell for far more than one without trees.

From Bulletin No. 1, "Tree-Planting on the Prairies," issued free by the Director of Forestry, Ottawa.

Where History is Made

No. 10 Downing Street, London, is the most famous private house in the world.

It is the residence of Mr. Lloyd George and has been the home of Prime Ministers for the past two hundred years. Downing Street is a little blind alley off Whitehall. Two steps lead up to No. 10, which has a plain oak door with a wrought iron knocker.

A fine fireplace is a feature of the carpeted hall which leads to the waiting room. This room has a mahogany table and many capacious armchairs, and writing materials of every description for the use of visitors. A quaint little garden may be seen from the window.

The most interesting room, where all important meetings are held, is the Cabinet room. It is in this room that the Cabinet held its midnight sitting on August 3rd, 1914, to decide whether there should be war with Germany. Mr. Lloyd George has stated that this was the most dramatic moment of his life. This room is really a library. It is small and narrow, with a high ceiling, and at the entrance are four white pillars.

The first floor is given over to council rooms and the offices of the Prime Minister's secretaries. The second floor comprises the private residence of the Premier and his family. This is like a large flat with all the usual appointments.

The Premier breakfasts at 8.30 and usually entertains a guest. The famous Downing Street unofficial breakfast conferences have decided many important questions.

The reception room is a splendid apartment. There is an inner room which is the Prime Minister's sanctum, and which used to be Gladstone's favorite breakfast room.

For all its powers and authority No. 10 is a simple and unassuming house. Most of those who knock are admitted. The residence of the Premier is as accessible as any house in London.

Downing Street was built in 1674 by Sir George Downing, a supporter of Cromwell. He received a grant of the property in Whitehall, later known as Downing Street, and built the row of houses there. He occupied No. 10 himself.

After Downing's death the house passed to the Government and has since been used as an official residence.

Among famous Prime Ministers who occupied the house were Sir Robert Walpole, William Pitt the elder, William Pitt the younger, George Canning, the Duke of Wellington, Sir Robert Peel, Lord Palmerston, Earl Russell, Gladstone, and Disraeli.

The house has been associated with most of the greatest moments in our history. Here Lord Liverpool received news of Nelson's victory at Trafalgar and Napoleon's defeat at Waterloo.

——and the worst is yet to come

A CANADIAN BOOK-SHELF IN EVERY HOME

URGES R. J. C. STEAD OF OTTAWA.

"Without a Canadian Literature There Cannot, Ultimately, be a Canadian Nation."

Canadians have been so busy with the material problems of nationhood that it is not surprising if the deeper and more abstract qualities which go into the making of a great people have received less consideration than is their due. The average Canadian recognizes the empire builder in the railroader, the lumberman, the prairie pioneer, but he is not so quick to recognize the empire builder in the poet, the novelist, the artist, the musician. Yet without literature and art we can have no enduring manhood. So far as Canadianism is concerned the time and money spent in building railways, in clearing forests, in developing lands, are wasted unless out of these transient stages in our development comes an idealism which shall give us permanency among the nations of the world. Such an idealism can be expressed and perpetuated only by means of a distinctive Canadian literature.

A National Literature.

Canada's position in her attempt to develop a national literature is a peculiarly difficult one. Her proximity to the United States subjects her not only to an intense commercial rivalry which permeates the book business as much as any other line of trade, but to the more subtle and seductive danger that her successful writers are lured into writing, not for Canadians but for Amiericans. The rich financial returns offered for book rights, magazine rights, and motion picture rights by the immense market of the United States are a very real temptation to the Canadian author. They tempt him to go to the United States, or, if he does not physically leave Canada, to write with American approbation in view, which is the same thing so far as the development of a literature which shall express a distinctive Canadian idealism is concerned. Yet without such a literature there cannot, ultimately, be a Canadian nation.

No Vision Without Literature.

I think I am safe in saying that the average Canadian author does not regard money-making as the chief end of man. If he did he would go to the United States. What he does seek is the sympathy, and, so far as he may be able to deserve it, the approbation of the people of Canada. He wants them to understand what their national development; more indispensable than railways or factories or mines or farms or any material thing whatever, because without a vision the people perish, and without literature there is no vision.

When the Canadian people realize this fundamental fact they will be wise enough to see to it that Canadian literary talent receives such an appreciation at home as will encourage it to its fullest and finest expression. For the moment the means to this end seem to be an active and intelligent interest in Canadian books and the starting of a Canadian bookshelf in every Canadian home.

Got What He Needed.

"You are working too ahard," said a policeman to a man who was drilling a hole in a safe at 2 o'clock in the morning.

"What do you mean?" asked the burglar in a disconcerted tone.

"I mean you need arrest," answered the policeman.

Adventures.

It is said that the late Joseph Riis, when he was congratulated on his successful life, replied, "Why, I put myself in the way of things happening, and they happened, that's all."

It sounds very simple, as easy as going down to the letter box for your mail, or stepping to the telephne and speaking to a friend; yet to thousands of persons whose gray and weary lives consist of a monotonous round of duties, the offhand explanation would be merely exasperating. How can you put yourself in the way of adventures when you are tied hand and foot, or when the daily tasks leave you too exhausted for thought at night, or when you are shut away in some country solitude far from the passing of feet? It is a fair question.

Well, suppose we look at the adventurer for a moment. What are his distinguishing characteristics?

For one thing, he is open-eyed to the world about him—not absorbed in his own feelings or disappointments. No "ingrowing personality" ever had adventures—not after he began to grow in instead of out.

The true adventurer, moreover, is not afraid of hardship, expects to take risks, and will persevere in his quests to the end. If he is shut up in a prison, he will plan to escape; if he is shut in by a handicap, he will conquer the handicap. Life is full of such great adventurers—for, after all, the greatest adventurers are those of the soul and not of the body. Once our eyes are open to that truth, we see that opportunity is passing down our road every day.

It is an adventure to transform our enemy, or one whom we dislike, into a friend. It demands study and patience and tact and perseverance but it is one of the finest adventures of life, and it is worth a thousandfold all it costs.

It is an adventure to lift some one—perhaps some boy or girl a little slower than his comrades—into self-confidence and courage, until he is ready to claim his own "place in the sun."

It is an adventure to bring a new book interest into one's life—to make the work of some great poet, the life of some period of history, the study of some form of nature, really a possession. Sooner or later such a possession will call to itself friends from unknown spaces.

It is an adventure to make anything beautiful—a meal, a room, a dooryard, anything especilly that can be shared.

It is an adventure to study and to reflect until we can discuss intelligently even one of the great movements of our time, social, religious, or artistic; even though the mountains surround us, there need be no mountain barriers in our souls to separate us from the tides of thought that are flowing in the world outside.

Do these things sound commonplace? "Adventures meet the adventurous," the proverb says, and no one can set upon one of these adventures with courage and perseverance and open heart without sooner or later meeting his reward.

Canadian Forest Tree Seeds.

During the season of 1920, the work of collecting the cones of coniferous trees for reforestation purposes went on in practically all the provinces. The work was, perhaps, most vigorously pressed in the West where the Dominion Forestry Branch collects seed for its own forest nurseries and for the Forestry Commission of Great Britain, but, to a greater or less extent, it was done in all the provinces, either by government or private individuals. This is a hopeful sign in regard to forest conservation.

The Right Instinct.

"Come, Dorothy," said her father impatiently, "throw your doll on the bed and hurry or we shall be late."

"Daddy, how can you?" reproved the child. "I isn't that kind of a muvver."

News From Western Canada

According to the Panama Canal record 3,500 tons of wheat from the Canadian Pacific coast passed through the canal between January 1st and August 31st en route to European ports. A consignment of 100 tons of mutton from Vancouver is said to have been the first shipment of chilled meat from Canada to Europe by way of the Canal.

The Kootenay Match Company is being incorporated at Nelson, B.C., of local business men with a capitalization of $150,000, and a match factory will shortly be in operation. The necessary machinery has been installed and patents applied for, and it is expected that production will commence at an early date.

From a forty-acre farm at Penticton, B.C., Captain J. M. Beddall secured an estimated profit of $12,000 in apples alone. From these forty acres ten thousand boxes of apples have been shipped as well as eight tons of cherries, twelve tons of apricots and peaches and two tons of peas and prunes. There are approximately one thousand apple trees on the farm, varying from nine to fourteen years in age.

Over 20,000 tons of coal were produced from Saskatchewan mines during the month of October, according to a statement issued by the Department of Labor and Industries.

A winning that has made a real sensation is Alberta's capture of the first prize for alfalfa seed at the International Grain and Hay show at Chicago. This is an honor which has hitherto gone to the State of Idaho, which this year takes second place. First prize was won by Grafton and McNaughton, and third by A. Garrow both farmers near Brooks, while H. E. Knight, of Duchess, won ninth place.

The first Guernsey Cattle Association in Canada has been formed at Patricia, Alta., by a number of farmers interested in dairying. Arrangements have already been made to have two carloads of Guernsey cattle shipped to members of the Association.

Every animal sent to the Chicago Livestock Show from the Province of Alberta has won a prize. Exhibits included Shorthorn and Hereford cattle and Percheron and Clydesdale horses. Among the prizes awarded was the Canadian Horse Breeders' Association trophy for mares, won by Hamilton Brothers, of Innisfail.

A family of Roumanians numbering thirteen have arrived in Alberta, completing a 2,000-mile journey. They had sufficient money for the journey when they started, but owing to a delay in Belgium depleted their cash to such an extent they were practically penniless when Quebec was reached. However, good Samaritans along the route assisted and in Calgary they were further aided.

Several wealthy Russians are negotiating for tracts of irrigated land in the southern districts of Alberta, and one Russian, A. Koukalevsky, has already arrived and secured a half section. In the days of the Czar, this Russian was employed in the diplomatic service, but was forced to flee with a number of his compatriots to Japan. He is the advance guard of five other former powerful Russian families who contemplate coming to the prairies to farm.

After an absence of four years, Prince Erik of Denmark is a visitor in Alberta, and has expressed a desire to settle in this province permanently. He is considering purchasing a section of land in the Markerville district, which is chiefly settled by his counrymen. Prince Erik is at present on his way north to Peace River, where he will hunt big game for three weeks.

Long distance service between Alberta points and Winnipeg will be established as soon as possible, according to John Lowry, Manitoba Telephone Commissioner. Additional lines will not be constructed but in order to transmit sounds over the distance special apparatus costing between $8,000 and $10,000 will have to be installed.

Shipments of oil boring machinery to Manitoba has commenced by two large United States oil companies, which intend to commence exploitation of an area 45 miles north of Winnipeg this month, according to information received here. Experts representing the two companies have been in Winnipeg and on the ground which is to be worked for a long while.

Of a total of 400,000 motor cars in commission in Canada, 156,654 are located in the Western Provinces. In Manitoba there are 34,8114; in Saskatchewan, 58,825; in Alberta, 36,515; and in British Columbia, 26,500.

Grain handled by the Canadian Pacific Railway from September 1, 1921, until November 30, 1921, amounted to 93,000,000 bushels, officials announced. Wheat to the extent of 82,000,000 bushels was included.

The Original Thomas Atkins.

That the name Thomas Atkins, the popular word for the British private soldier, originated in the signature to a specimen official model for keeping soldiers' accounts is tolerably certain, says an English writer. The difficulty is to identify the particular individual. By far the best case so far made out is that for a gunner in the Royal Artillery.

In the old days when George III. was king, life in the ranks of the British army was very hard, and the men saw little pay. William Cobbett served eight years in the ranks, and he himself speaks of the difficulty he experienced in saving even a halfpenny that he proposed to spend on a red herring to add to his scanty breakfast. Alas! the halfpenny was stolen. Even as late as the nineteenth century, the time when our hero flourished, soldiers' accounts were anything but well kept. Many of the men could not read and were dependent for their just dues on the honesty of their pay sergeant. Suddenly there arose a born accountant in the person of a gunner in the Royal Regiment of Artillery who was named Thomas Atkins. He soon became an object of admiration to his comrades and an object of awe to the pay sergeants. Even some of the officers at first regarded him with suspicion.

Gunner Atkins was, however, a decent fellow. He had proved himself a man of physical courage in the field, and he soon earned the respect of his officers for his moral courage. He started a book in which he entered and balanced his accounts monthly, and so is believed to have originated the idea of the soldier's pocket ledger, or, as it was called at first in the Royal Artillery and afterward in the army generally, a "Tommy Atkins." There is little doubt that the pocket ledger was generally known by that name in the regiment; and it is equally true that there was then serving in the Royal Artillery a gunner of the name of Thomas Atkins, whose method of keeping his accounts was honored by almost general adoption in the service.

Small, non-poisonous snakes are very useful on the farm. They live mostly on insects. Big snakes eat birds' eggs.

By the Skin of His Teeth.

The flying corps of all the armies distinguished themselves for daring and gallantry during the recent war. An eyewitness at the British headquarters told about one thrilling episode that was more sensational than most of the adventurous exploits that occur along the front almost daily.

A British airman, alone in a single-seated aeroplane, saw and pursued a German machine. While trying to reload his machine gun he lost control of his steering gear, and the aeroplane turned upside down. The belt round the man's waist was rather loose, and the jerk almost threw him out of the machine; but he saved himself by clutching hold of the rear seat strut, while the belt slipped down round his legs.

As he hung thus, head downward, making desperate efforts to disengage his legs, the aeroplane fell from a height of eight thousand feet to about twenty-five hundred feet, spinning round and round like a falling leaf. At last he managed to free his legs and reach the control lever with his foot. Then he succeeded in righting the machine, which turned slowly over, completely "looping the loop." Thereupon the pilot slid back into his seat and came composedly to the ground.

Appreciation.

The mayor of a certain town had been asked to assist in the annual entertainment given at Christmas to the inmates of the local workhouse. He consented with great complaisance and went and made up as Father Christmas. For a time his antics and pranks were the delight of the company.

A damper on his enjoyment was, however, eventually brought forward by a scrap of conversation he chanced to overhear.

"Isn't he enjoying himself?" remarked one old man to another. "What a treat it is for the likes of him! But why can't they let all the loonies out on a night like this?"

"Well," replied the other, "mebbe they ain't all so harmless as this'n!"

Lady: "Seems to me eight cents is an awful price for an egg." Farmer: "Lady, you forget that that represents a whole day's work for a hen."

Stories of Famous People

Princess Mary's marriage to Viscount Lascelles (pronounced Lassels) will be the third instance of daughters of the Royal Family marrying peers or heirs to peerages.

The first was that of Princess Louise, fourth daughter of Queen Victoria, who in 1871 married the Marquess of Lorne, afterwards Duke of Argyll; the second the Princess Royal and the Duke of Fife.

Unless she forgoes her official income, Princess Mary will continue to draw, after her marriage, the annual sum of £6,000. This is provided under the Civil List Act of 1910 for each daughter of the Sovereign "who attains the age of twenty-one years or marries." She draws it as long as she lives.

The special order relating to the Royal Family which the King issued in 1917 provided that in future the only "Princes" and "Princesses" were to be children and grandchildren of the Sovereign. The title "Royal Highness" was to be held only by the Sovereign's children and by his grandchildren in the male line—not by grandchildren who are children of a King's daughter.

Thus, though the children of the Prince of Wales and his brothers would be Royal Highnesses, those of Princess Mary would not be.