

**TREES IN PLACE
AND OUT OF PLACE**

Among the many good people who use more sentiment than reason, or who lack knowledge of the fact, it has become a fad to say it is a crime to cut down a tree and that it is always, and under any circumstances, an act of greatest virtue to plant one.

Each variety of fruit or ornamental tree, when it reaches maturity under reasonably favorable conditions, has its established size or spread of branches. Among the better shade trees commonly planted, this reaches 40 to 50, and even a greater number of feet in diameter. In dense forests we see the trees stretching up and up, after the precious sunshine and air; losing their side branches and becoming a collection of giant telegraph poles with pitiful little bunches of green at the top; nothing beautiful about them, and all smaller and weaker specimens killed out or crippled.

Every tree, to be beautiful, must have room to expand and develop to its proper proportions, and to retain the side branches with which nature always furnishes them, under such conditions, unless thwarted by the bungling hand of the hired man with the axe or saw.

Street trees should never be planted to be ultimately nearer than 40 feet apart. Most of the better shade trees are slow in growth. It is quite advisable to plant quicker growing trees in between them for immediate effect, to be cut out later when they begin to crowd and injure each other.

Quite often when this time comes, the poorer, quick-growing tree is so much larger and finer looking a specimen, that the owner's heart fails him and he compromises by hacking off the branches of all ruining the whole row and, at that, only affording temporary relief, as it must be done again and again. In a few years the poorer and short-lived trees begin to die, and soon only a straggly row of melancholy cripples exists, where might have been noble specimens, good for generations to come.

Trees should never be planted so as to densely shade a building where humans or animals abide. The sun must reach every part of our dwellings for at least a part of the day, or the doctor will be a certain and frequent visitor.

Trees must not be planted in the center of the lawn. At the side or the rear is the place for them if they will there have room to develop. A spreading apple tree or two in the backyard is good for shade and for its fruit—if it is sprayed to kill the insects and fungous diseases.

If the house is densely shaded, use the axe ruthlessly and open the place up to admit air and light. If two trees are crowding each other select the best, or best located, and put the axe to the other, unless it is small enough to move.

Don't trim up—cut down. One perfect tree is of more value than a yard full of crippled or stunted specimens.

MUSICAL INSTRUCTION

A Highland piper, having a pupil placed in his hands by his chief, and not knowing the notes of music—the semi-brevet, minims, crotchets and quavers, &c.—by their designations, although he knew each one by head mark and its musical value very well set to work in this way:—"Here, Norman," took your pipes, my good lad, and blow a blast." Norman did as requested. "So, so!" exclaimed the old man, "tat iss very well, well blown, intead—just beautiful. But what is sound, Norman, without sense? Just so. You may blow forever without making a tune of it if I do not tell you how ta queer things on ta paper are to help you. Look here, lad. You see tat big fellow with ta round, open face (pointing to a semi-breve between the two lines of a bar), he moves slowly from tat line to tis while you beat one with your foot and give a long blast. Now you put a leg to him. You make two of him and he will move twice as fast. If you blacken him face he will run four times faster as ta fellow with ta white face; but, besides blackenin' him face, if you will bend him knees, or tie him legs, he will hop eight times faster as ta white faced fellow I showed you ta first time. And now, whenever you blow your pipes, Norman, remember tis, the tighter you will tie these fellow legs ta faster they will run an' ta quicker they will be sure to dance."

THE CASE AND THE EXCEPTION

Doctor (to maid)—I am Dr. Curewell. They have just telephoned me to come here immediately. How is the patient?

Maid—Oh, doctor, you have arrived too late! My master died not five minutes ago.

Doctor—Well, never mind. In this case, at least, nobody can say that I was the cause of death.

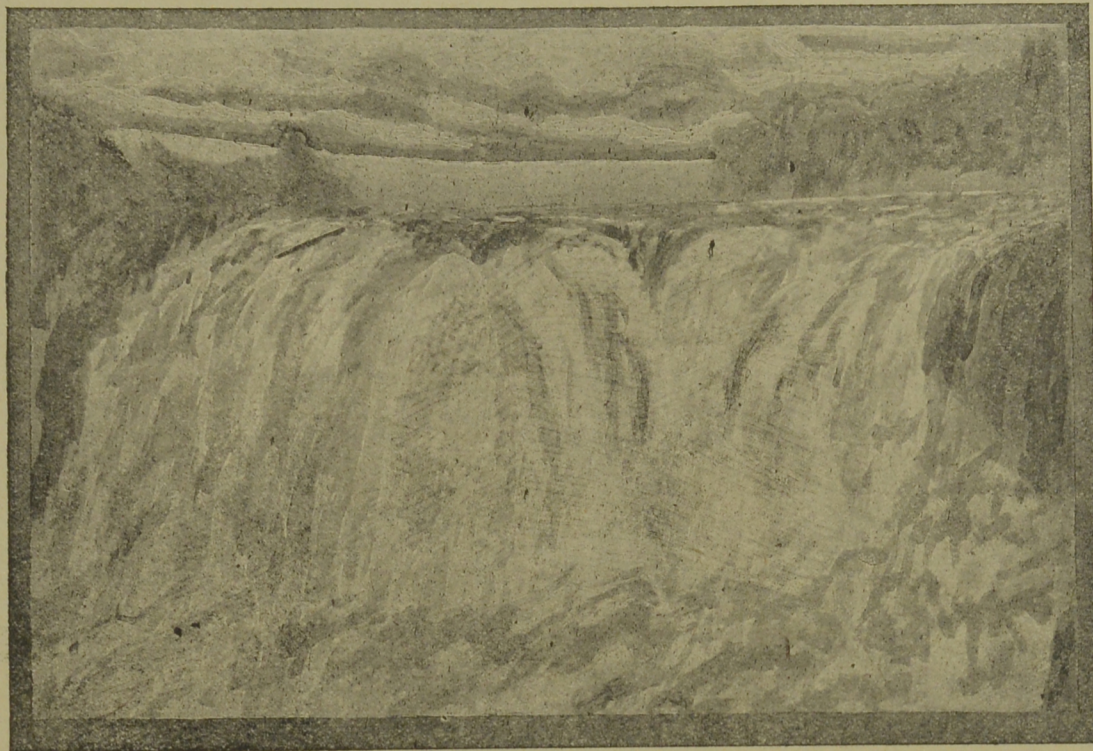
FISHING

She—You don't love me any more. I know it. I feel it.

He—But, pet, I assure you, I adore you.

She—No, no, no! No man can love a woman with such old clothes as mine.

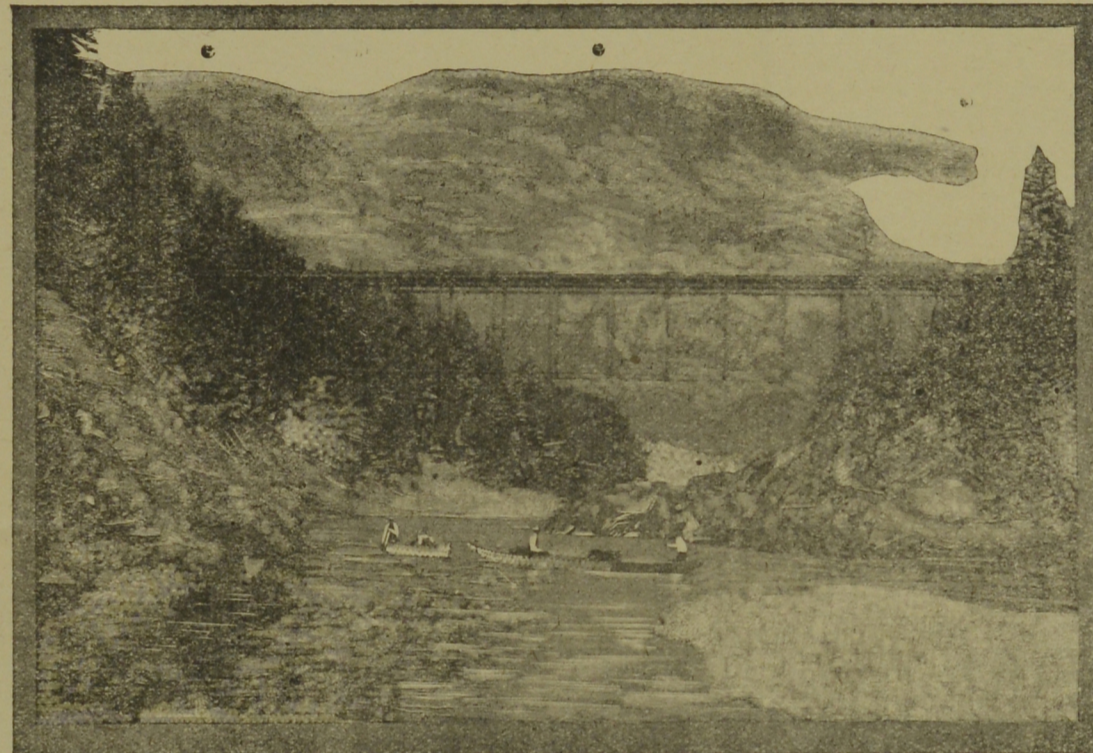
New Brunswick's Water Powers



GRAND FALLS OF THE ST. JOHN

The above engraving shows Grand Falls, the mightiest cataract east of Niagara, and one of the great scenic attractions of New Brunswick. It is understood that this magnificent

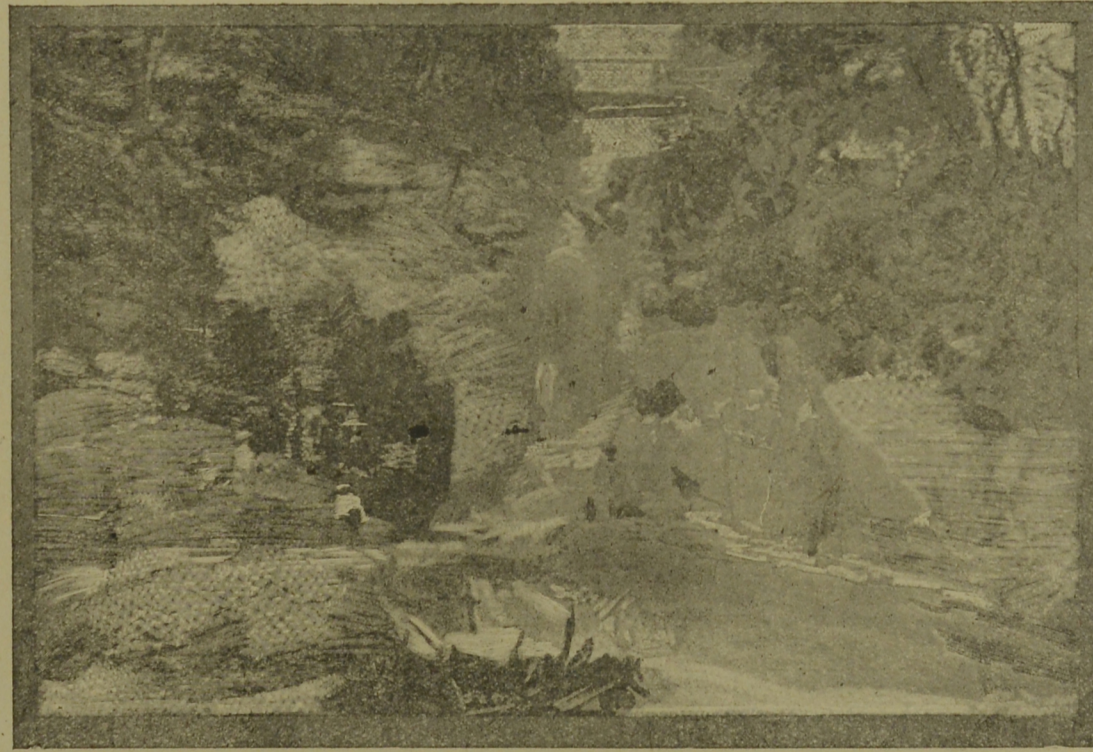
water power, the finest in the province, is soon to pass into the control of a syndicate, of which Sir William VanHorne is a leading member. Should an electric railway ever be operated along the valley of the St. John, there is but little doubt but that the motive power would be generated at Grand Falls. The height of the cataract is about eighty feet, and for nearly half a mile below the water rushes through a rocky gorge.



THE TOBIQUE NARROWS.

The above engraving shows the Narrows of the Tobique River, and the fine steel bridge erected by the Provincial Government a few years ago. For several years past, a company, in which Mr. John E. Stewart

of Andover, is a leading spirit, has been seeking legislative authority to dam the Tobique at the Narrows and erect a pulp and paper mill. This proposal has been strongly opposed by some of the lumbermen and also by the Tobique Salmon Club, an organization largely composed of wealthy sportsmen who control valuable fishing rights on the river. Last year the bill was defeated in the Legislature by a majority of only two. The Tobique is one of the greatest salmon streams in America.



THE POKIOK FALLS.

The accompanying engraving depicts one of the great scenic attractions of York County, the Pokiok Falls. The Pokiok stream flows from Lake George, in the Parish of Prince

William, through a well-wooded country, to the St. John River, a distance of almost fifteen miles. The Falls are close to the main highway road in the Village of Pokiok, which is

about fifty-five miles from this city. The height of the cataract is about forty feet. This splendid water power, together with the valuable timber limits on the Pokiok, was recently acquired by an American concern.

What He Did.—In a Sunday School the teacher was giving a lesson on the subject on Daniel in the lion's den. "Now what do you think was the first thing Daniel did when he came out of the lion's den?" asked she.

After a moment's pause a small girl piped out—"Guess he telephoned home to his wife to say he was all right."

Mixed.—A Greenock minister had a Highland elder, who told him one day that all laughter was sinful, and at the same time took his minister to task for playing cricket. A day or two afterwards the minister caught the elder looking through the railing of a bowling green. When challenged the elder replied: "I was not lookin' at the game at all. I was lookin' at a man to see if he was the man I thocht I wass lookin' at."

'Deed No.—An old-fashioned minister in the North was visiting two of flock, eccentric maiden ladies. While catechising them about the state of their religious knowledge he chanced to say, "And of course you know all about the fall of mankind." "Fa' o' mankind!" exclaimed one of them; "'deed no! Fa' far they liked, there was never nane o' them fa'd oor way."

**IF THE COMET SHOULD
COLLIDE WITH THE EARTH!**

(Scientific American.)

On May 18th the earth will be plunged into the tail of Halley's comet, and the head of that body will be 15,000,000 miles away. It is but natural that a thinking man should ask: Is there a possibility that the earth may encounter a comet and thus come to a frightful end?

Curiously enough it was Halley himself who first pointed out this possibility. Whiston, Newton's successor in the Lucasian chair of mathematics at Cambridge, was so alarmed at "a chariot of fire" which flared up in his day, that Halley was prompted to look closely into its movements. His work led to the startling result that the comet, when passing through the descending node, had approached the earth's path with in a semi-diameter of the earth. Naturally, Halley wondered what would have happened had the earth and the comet been actually so close together in their respective orbits. Assuming the comet's mass to have been comparable with that of the earth, (an assumption which we now know to have been utterly beyond reason) he concluded that their mutual gravitation would have caused a change in the position of the earth in its orbit, and consequently in the length of a year. This train of thought led him to consider what the result of an actual collision would have been, and he concludes that "if so large a body with so rapid a motion were to strike the earth—a thing by no means impossible—the shock might reduce this beautiful world to its original chaos."

Hence Halley not only dispelled the superstition and the terror which once followed in a comet's wake, but also pointed out a possibility which the superstitious Dark Ages had never dreamed of. It seemed to Halley not improbable that the earth had at some remote period been struck by a comet which, coming upon it obliquely, had changed the position of the axis of rotation, the north pole having originally, he thought, been at a point not far from Hudson's Bay. The more recent investigations of Kelvin and Sir George Darwin completely upset any such theory.

Since Halley's time the chance of a collision between the earth and a comet has engaged the attention of many astronomical mathematicians. Laplace, for example, painted the possibility of a collision with the earth so vividly that he startled his day and generation. He drew a picture of a comet whose mass was such that a tidal wave some 13,000 or 14,000 feet high inundated the world, with the result that only the highest peaks of the Himalayas and the Alps protruded. Lalande created a panic by a similar consideration of the subject in a paper which was intended for presentation before the Academy of Science, but which was not read. Such was the popular excitement, that he felt himself constrained to allay the public fears as well as he could in a soothing article published in The Gazette de France. The masses assumed by both Laplace and Lalande are so preposterous that their theories are no longer seriously considered by any sane astronomer.

Since the day of Laplace and Lalande there have been several comet "scars." Biela's comet crossed the earth's orbit on October 29th, 1832. When that fact was announced, Europe was in a ferment. The orbit of the earth was confused with the earth itself. Such was the popular excitement, that Arago took it upon himself to compute the possibilities of a collision. He pointed out that the earth did not reach the exact spot where the comet had intersected the earth's orbit until a month later, on November 30th, on which date the comet was 60,000,000 miles away. Incidentally, he pointed out that a collision was always happily remote. He thought that the chances of a meeting were about one in 281,000,000. Babinet, on the other hand, thought that a collision was likely to take place once in about 15,000,000 years. More recently the entire problem has been considered by Ptof. W. H. Pickering, of Har-

vard. By a collision he understands, first, that any part of the earth strikes any part of the comet's head; second, that any part of the earth strikes the most condensed point in the head, (the core), as distinguished from the larger nucleus. What the average size of a visible comet's head may be, we have no means of knowing. Young estimates that for a telescopic comet it averages from 40,000 to 100,000 miles in diameter. The head of the great comet of 1811 was 1,200,000 miles; that of Holme's comet in 1892, 700,000 miles; and that of naked-eye comets generally over 100,000 miles.

In the last half of the last century 121 comets, including returns, penetrated the sphere of the earth's orbit. From this Prof. Pickering infers that we should expect to be struck by the core of a visible comet once in about 40,000,000 years, and by some portion of the head once in 4,000,000 years. Since comets' orbits are more thickly distributed near the ecliptic than in other regions of the sphere, the collisions would occur rather more frequently than this, but hardly as often as once in 2,000,000 years and since it has been estimated that animal life has existed upon the earth for about 100,000,000 years, a considerable number of collisions perhaps as many as fifty, must have taken place in that interval, in Prof. Pickering's opinion, evidently without producing any very serious results.

The old notions of the tidal effects of comets were based upon an erroneous conception of cometary masses. It seems astonishing that a man of Laplace's wonderful mathematical powers should not have concluded that a body like a comet, which can sweep through the entire solar system without deranging a single one of its members, must have a mass so small that it cannot appreciably affect the waters of the earth. As it is comets are more likely to be captured by planets (witness the comet families of Jupiter and Saturn) than to derange a member of the solar system or to produce tidal effects.

The plunging of the earth in the tail of Halley's comet naturally causes many to wonder what will be the effect upon the inhabitants of the earth. Similar passages occurred in 1819 and 1861, but no one was the wiser until long after. Some astronomers claimed to have noticed auroral glares and meteoric displays at the time, but whether these were really associated with the comet or not cannot definitely be stated. At all events, it may be safely held that on May 18th next none of us will be aware of the fact that we are literally breathing the tail of Halley's comet. From this it may well be inferred that the wild tales of the possible effects of poisonous gases, tales for which the newspapers are very largely responsible, are utterly without foundation. It is true that a comet's tail is composed of poisonous and asphyxiating hydrocarbon vapors and of cyanogen; but it is also true that the actual amount of toxic vapor is so small that when the earth is brushed by the tail of Halley's comet, the composition of the atmosphere will not be so affected that a chemist could detect it. Flammarion has drawn a vivid picture in his "La Fin du Monde" of the possible effect of passing through a tail highly charged with vapors. He has shown us terrified humanity gasping for breath in its death struggle with carbon monoxide gas, killed off with merciful swiftness by cyanogen, and dancing joyously to an anesthetic death produced by the conversion of the atmosphere into nitrous oxide or dentist's "laughing gas". No one of any common sense should be alarmed by these nightmares, particularly when it is considered that so diaphanously thin is a comet's tail, that stars can be seen through it without diminution in brightness.

AT THE INTELLIGENCE OFFICE

The Lady—Now, remember, please, I want a very good maid and one that is absolutely discreet.

The Proprietor—You can be perfectly sure of the maid I am going to send you. She has been five years at a telephone switch-board.

MR. BUSINESS MAN.

You should bear in mind that the Customer is the Individual who cuts the widest swath around your establishment; However Court-eous and efficient your clerks may be, if you do not have customers your establishment will soon eat its head off. Bear in mind that THE DAILY AND SEMI-WEEKLY MAIL go to the homes of the people who have money to spend. It is our business to find Customers for you through the medium of the advertising columns of the Mail.

A WORD TO THE WISE OUGHT TO BE SUFFICIENT