

# NAGARA RUNNING DRY.

## BEAT LAKES WILL DRAIN IN-TO THE MISSISSIPPI.

Will Not Happen for Three Thousand Years—History of the Gorge.

Before Niagara Falls, which are now cutting their way backward along the bed of the river to Lake Erie at the rate of about four feet a year, reach the head of Grand Island, less than five miles away, there will be no Niagara. The whole system of the Great Lakes is changing. The waters of Lake Michigan at Chicago are slowly rising, and Lake Erie is growing shallow.

Eventually, unless a dam is built to prevent it, as has been proposed, Lake Michigan will overflow to the Illinois River, as it did centuries ago in the last pre-glacial period; the basin of Lake Erie will be tributary to Lake Huron, the current will be reversed in the head of the St. Clair channels, and the whole lake system will drain southward into the Mississippi.

Then Niagara will vanish. From a majestic cataract the Falls will dwindle to a few threads of water falling over a precipice, as may be seen in the summer season in the upper falls of the Genesee at Rochester. All that they will carry will be the drainage of the immediate neighborhood.

There isn't any occasion for alarm for the present, however, for all this will take place in from two to three thousand years from now, and many things may happen before then. Also, as it is K

**EXTREMELY UNLIKELY**

that the ebb of life will be discovered in this generation, nobody now alive need worry much about it. But that is what the great lake system is tending to, as is set forth by Prof. Amadeus W. Grabau, S. D., of Rensselaer Polytechnic Institute, N. Y.

It will be from 500 to 600 years before the tendency of the lakes to a new drainage bed is plainly manifested, according to the authorities cited by Prof. Grabau. The rising of the waters of Lake Michigan at present is at the rate of nine or ten inches a century. The first water to overflow will be that at some high stage of the lake, and the discharge may at first be intermittent. For a mean lake stage such a discharge will begin in about 1,000 years, but after 1,500 years there will be no interruption.

In about 2,000 years the Illinois River and the Niagara will carry equal shares of the surplus water of the great lakes, and in 3,500 years, for certain, there will be no Niagara.

**THE PLAN PROPOSED**

to stop the tendency to erect an immense dam in the Niagara River above Buffalo, with the object of checking, and eventually decreasing, the outflow. It is argued that this would not greatly decrease the power of Niagara, now valuable, but there are authorities who contend that this argument is absurd, and the plan is opposed on that account.

The tilting of the territory in the north-west is a curious phenomenon for which the geologists cannot wholly account. It is plainly recorded in the beaches of the old glacial lakes, which had a uniform elevation while forming, but now are no longer of a uniform height above the sea level, rising progressively toward the north-east. The movement is still going on.

Niagara Falls came into existence when the waters of Lake Iroquois, which in ages long past was the predecessor of Lake Ontario, fell beneath the level of the escarpment at Lewiston. At first the Falls were only a small cataract, but year by year as the lake subsided the cataract gained in height and consequently in force of fall as well as efficiency in cutting its channels. The Niagara gorge from Lewiston to the present Falls is believed to be wholly the product of river erosion.

Before the advent of the Falls the Niagara was

**A PLACID STREAM**

from lake to lake much as it is today from Buffalo to the northern end of Grand Island. It cut shallow banks into the glacial till and its traces are seen now in some places a mile back from the edge of the terrace which the Falls have since cut. It has been patiently cutting that gorge for thousands of years, how many the geologists cannot tell, but they place the total at not less than 10,000 or more than 50,000. One geologist, Prof. Hitchcock, puts the beginning of the great cataract at 1026 B.C., which is 300 years before the time of Romulus, or about the period in which King David reigned in Jerusalem.

As long as the river is narrow and vigorously undercuts its banks, the latter will be steep and the river channel will have the character of a gorge. This continues as long as the river is cutting downward, that is, till the grade of the river bottom is a very gentle one. Then the spreading of the current undercuts the banks, and atmospheric degradation quickly destroys the cliffs, which the river does not keep perpendicular. Niagara gorge changes greatly, even in a century. Below the falls the river flows in a channel in places only ten feet wide and a hundred feet below the level of the platform, which was its bed a century ago.

# ON THE FARM.

**PASTURING ORCHARDS.**

Sheep and hogs are the only domestic animals that should be pastured in an orchard of young fruit trees of any kind, and they need to be carefully watched that no damage is done. The hogs are liable to rub the tree trunks, but this can be in a measure prevented by driving rubbing stakes into the ground at various points, but especially near the trough or the sleeping shelter. Sheep are liable to strip the bark from the trunks, especially in the early spring, as it appears to contain a bitter element which they crave. They may not discover this bark ration for some time, but when they do both large and small trees are stripped.

Both sheep and hogs most greedily devour the fallen fruit, whether it contains worms or is decayed. Hogs will eat all fallen fruits from cherries to apples, while sheep are fond of apples. There is some risk in allowing cattle the range of an apple orchard after the fruit is nearly developed as they are often choked by attempting to swallow whole apples. If the trees are trained low they will pull the fruit from the lower branches and in a playful mood, hook the limbs and trunks. Horses and colts will also pull the fruit from the trees, and if disposed can reach some distance from the ground.

Pasturing orchards, whether recently set or old and well developed, is attended with many risks, in most cases not commensurate with the supposed gain. If orchards were planted with hardy crops, or kept fertilized and cultivated this question of pasturing them would never be discussed, and the owner in a term of years be equally as well off financially. The trees certainly would be in a better condition, not only as fruit producers, but for resisting the effects of disease, which a heavy sod seems to favor.

**SUMMER POULTRY HINTS.**

Farmers who engage in the poultry business generally leave a great deal to the management of poultry to the wife or some other member of the family. Whoever may be in charge of the poultry is very apt to become careless in their management, rather than doubling their efforts. We are prone to lose sight of one thought. During the winter the supreme thought is to keep the poultry warm and furnish as much of summer conditions as possible and when warm weather comes we feel that the proper conditions are here and there will be but very little to do in the way of management.

Summer is a critical time for both old and young. The young are to be fed, cared for and kept from enemies and disease, and the old have approached that season when they must take a vacation. This is a time when disease is spread very rapidly and when lice are on the increase and also on the alert. Wet, dirty poultry houses are often overlooked and chickens may select some nook and cranny as their home. The owner is liable to think this is due more to the heat than from any other cause. Chickens that leave their regular roosting place and roost in the trees have something else for an excuse than the heat. Cleanliness is certainly a foundation to success and in the summer time when it is more essential than any other season.

Shade will have to be furnished and it should be provided in abundance. There are so many ways that it can be furnished that there is no excuse for being without it. Among the plants that will make quick shade for poultry where there are no trees are sun-flowers, castor beans and hemp plants. These can be planted in the spring and will afford a great deal of shade by the time the hot term appears. An orchard is a regular paradise for hens, and if there be a plum orchard, no better place can be had for the good of both hens and plum trees. A little patch of rye sown in some convenient place will afford pasturage.

In summer the fight must be always on as against lice and mites. It is almost always in order to fight these pests now. Whatever remedy is employed it means to keep always at it. It will not pay to forget the poultry in summer if they are to be on hand to be remembered in the winter. Hot weather will suggest the kind of management for fowls and if some of these suggestions can be carried out the poultry will not suffer from hot weather.

**BEST METHODS OF CULTIVATION.**

I am very much interested in the idea that deep cultivation of trees is very injurious to them, writes Mr. John Chamberlain. All stirring of the soil is in itself a benefit to the crop, but it is easy to disturb the roots of a plant or tree if the plow or hoe goes down deep and so do it harm. I am sure that cultivators do not watch such things at all carefully as a rule, and so they may be destroying a great many small roots without knowing it. There is a great misapprehension among farmers as to the real thing accomplished by cultivation, so that in many cases there is done more harm than good. It is very little of it done if it were not necessary to kill the weeds.

Practically all of our commonest weeds are tap rooted and if allowed to get a good start must be torn out deep down to kill them. On the other hand, all of our garden vegetables and field crops are very shallow rooted, with the exception of root crops so that deep cultivation is injurious to them. The obvious way out of this dilemma is to cultivate very shallow and often. Any weed from seed is killed by merely breaking it in two, if done before it

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gets past its first stage of growth, so that shallow cultivation answers every purpose. Let us plow unplanted soils deep, but cultivate the surface only.

**SUCCESS IN BREEDING HOGS.**

The first essential in breeding hogs is to provide excellent stabling and feeding quarters. Secure the very best breeding stock that can be obtained and then give the best care possible, clean, wholesome food, pure water with plenty of rich slops. Feed oats, wheat middlings, corn and oil meals, ashes, charcoal, etc. If this is done and the quarters kept clean, disease will not be troublesome as a rule. Remember that an ounce of prevention is better than a pound of cure.

If you want animals with fine coats, smooth limbs and early maturing qualities, you must breed from stock possessing these essentials. Secure those with broad backs, deep sides, good loins and hams and well developed bodies in every particular. Remember that hogs must be given the very best attention and carefully looked after at all times if they are to give best results.

**CARE OF FARM MACHINERY.**

It pays to take good care of the machinery. Many people leave their implements out in the wet and have an endless chain of expense for repairs, which could have been avoided had they used good judgment. One should have a good machine and keep all implements in it. At the close of the season the implements should be carefully examined, everything should be secured, and if any defects are found they should be remedied at once, instead of waiting till the machine is wanted for use. When the paint begins to wear badly the machine should be re-painted, which, besides increasing its durability, improves its appearance. Everything about the farm should be run in the same fashion. Barns should be painted, harness oiled, and horses curried. A trim farmer is generally a prosperous farmer.

**BREADFUL MISTAKE BARELY AVERTED.**

THOMAS HARRISON OF ST. MARY'S, N. E., MIGHT HAVE BEEN OPERATED ON FOR APPENDICITIS.

His Case Was Wrongly Diagnosed—He Realized the Fact in Time—Dodd's Kidney Pills Probably Saved His Life.

St. Mary's, N. E., July 22.—(Special)—Thomas Harrison of this place considers himself a fortunate man that he is alive and well today. For months he was suffering, as everybody thought, with appendicitis. That's what he was told and that's what he was being treated for. But he grew worse in spite of the efforts exerted to help him.

In appendicitis it is generally thought necessary to perform an operation. That Mr. Harrison was not required to undergo the surgeon's knife and that for a disease he never had, is in all probability nobody's fault but his own. For it was not appendicitis that afflicted Mr. Harrison. It was Stone in the Bladder, and it was Dodd's Kidney Pills that restored him to the perfect health and strength he enjoys to-day.

"About a year ago," he writes, "I began to suffer from pain in the back accompanied by a lethargy impossible to overcome. I employed a physician who named my disease appendicitis, but in spite of his treatment I grew worse and began to pass bloody urine.

"About this time an anxious friend advised me to use Dodd's Kidney Pills and by the time I had finished the first box I passed a stone of unusual size which is now in the doctor's possession.

**DOG SAVED FORTY LIVES.**

**HIT ON THE HEAD WITH A STONE AND KILLED.**

Costliest Monument Ever Erected to an Animal Stands on Mt. St. Bernard.

The handsomest monument ever erected to the memory of any animal has just been built on Mount St. Bernard to the memory of a convent dog that saved forty lives. Barry was the dog's name, and he held a glorious record. He wandered on the glaciers of the mountain for ten years, and during that time he found forty persons lying in the snow under the influence of the fatal slumber which precedes death.

Some time ago the brave canine found a girl who had lost her way on the glaciers. He roused her from her sleep by licking her face, and then crouched down by her side so that she could get on and ride. The girl clambered on the animal's back, and away they went to the convent. Barry was killed recently by a man hitting him on the head with a large stone. The monument is of marble, and represents the faithful dog carrying a child on its back. Carved on the marble is this inscription: "Barry, the heroic, saved the lives of forty persons and was killed by the forty-first."

**LORD BYRON'S FAVORITE DOG.**

At Newstead Abbey, Nottingham, a monument of marble, having six broad steps surrounding it, marks the last resting-place of Boatswain, Lord Byron's favorite dog. Byron loved his pet with a passion that was almost a mania, and when he died a clause was found in his will to the effect that he should be buried beside his dog. The poet's friends refused to do this, and they interred him in the family vault.

One of the finest animal cemeteries in the world is situated at Victoria Gate, Hyde Park, London, and here are interred some 200 dogs. Each animal has a grave of its own, and lies in a coffin. Marble tombstones mark the last resting-place of the defunct animals, and prominent among them is the headstone erected by the Duke of Cambridge to his "Poor little Prince," Pompey, the pet dog of Miss Florence St. John, is buried in the Dog's Cemetery. The tombstone is of Carrara marble, and bears the following words: "Pompey, the favorite dog of Florence St. John. In life the firmest friend, the first to welcome, the foremost to defend. November 10th, 1895."

**HIS GREAT TROUBLE.**

An old bed-ridden fisherman at a fashionable watering place was frequently visited during his last illness by a kind-hearted clergyman, who wore one of those close-fitting clerical vests which fastened behind. The clergyman saw the approach of death one day in the man's face, and asked if his mind was perfectly at ease.

"Oo, ay, I'm a' richt, caude the feeble reply.

You are sure there is nothing troubling you? Do not be afraid to tell me.

The old man seemed to hesitate, and at length, with a faint return of animation, said:

"Weel, there's just one thing that troubles me, but I dinna like to speak o't.

Believe me, I am most anxious to comfort you, replied the clergyman. Tell me what it is that troubles you.

"Weel, sir, it's like this, said the old man eagerly. I cannot get the life o' me mak' oot hoo we manage ta get in ta that waistcoat.

**A CURIOUS CEMETERY.**

The most curious cemetery is situated at Luxor, on the Nile. Here repose the mummified bodies of millions of sacred cats. Their remains are side by side with the bodies of kings and emperors in mausoleums.

**ROUGH ON THE DOCTOR.**

Brown always was a quick-witted chap. Only the other possession of his was as nimble as that wit of his, and that was his money. He was always broke and always reckless withal.

He took a cab once, being a bit unsteady, to convey him from the club to his dwelling, the latter some distance.

The cool night air blowing through the open windows sobered him up enough to permit of his realizing that he had no money to pay the cabman's fare.

Just at that moment the driver made that very usual inquiry: "What address did you say, sir?" And Brown said promptly: "Dr. So-and-so, such a street and number, the same being round the corner from his own abode. The house reached, Brown dashed up the steps, rang the bell furiously, implored the doctor to go at once with his instruments to such-and-such a house, the lady being in a dying condition from an accident. A cab was at the door, and would the doctor take the cab? The doctor would. Brown hustled him in, gave the driver an address, and then started off to telegraph to the lady's brother.

Of course, Brown went home round the corner, and of course the cabman searched in vain for the number, and of course the doctor—well, what could he do?

**TORONTO'S BIG EXHIBITION.**

The Prize List for Toronto's great Annual Exposition and Industrial Fair, which this year will be held from August 26th to Sept. 7th, has come to hand. It is printed in yellow shaded with green, and presents a very handsome appearance. Upwards of \$25,000 will be distributed in premiums, and \$30,000 will be spent in features and special attractions. The live stock classes have been rearranged in some instances and the premiums increased in others. A class for French Canadian cattle has been added. Copies of the Prize List and all information desired can be had on addressing H. J. Hill, 82 King St. East, Toronto. Special efforts are being made to increase the excellence of the Exhibition this year on account of the close proximity of the Pan-American.

**COLLEGE COLORS.**

Our college colors are pink and old gold, said Miss Frocks.

Our college colors were black and blue when I was initiated into the secret society, added her brother.

**MEDICAL WORLD STARTLED.**

Remarkable success of the new treatment for Catarrh, Bronchitis, Asthma, Grippe, and diseases of the lungs. A balm in every drop. Hope and assurance for the troubled and sick. For a generation sufferers from Catarrh, Bronchitis, Asthma, and other diseases of this class have been vainly striving to effect a cure of their malady by the use of ointments, washes, powders. Failure could only follow treatments at once disgusting, unscientific and useless. A marvelous advance was made in the scientific treatment of these maladies when that marvelous method known as the Catarrhose treatment was promulgated. At once the medical world's attention was directed towards this mode of treatment, and it would be impossible to mention any medical man of the first rank that would not recommend any other. The best medical men recommend this new mode of treatment, ministers, lawyers, prominent public speakers and the great public with unstinted praise recommend it. So simple, it cures while you breathe it. So prompt its effect seems magical. So effective that its results are absolutely permanent. Catarrhose is sold by all druggists. The treatment will last from 6 weeks to 3 months, and it only costs \$1.00. If you have any doubts to satisfy, send us 10c to cover cost of boxing, mailing, etc., and we will send you a 25c outfit free. Polson Chemical Co., Kingston, Ont., and Hartford, Conn.

Comparatively speaking, Ireland and Portugal have fewer able-bodied men than any other nations.

**Beware of Ointments for Catarrh that contain Mercury**

as mercury will surely destroy the sense of smell and completely derange the whole system when entering it through the mucous surfaces. Such articles should never be used except on prescriptions from reputable physicians, as the damage they will do is ten fold to the good you can possibly derive from them. La Le Catarrh Cure, manufactured by F. J. Cheney & Co., Toledo, O., contains no mercury, and is taken internally, acting directly upon the blood and mucous surfaces of the system. In buying Hall's Catarrh Cure be sure you get the genuine. It is taken internally and made in Toledo, Ohio, by F. J. Cheney & Co. Testimonials free. Sold by Druggists, price 75c per bottle. Hall's Family Pills are the best.

June is the calmest month in the year, there being on an average ten June gales in fifteen years. July comes next with eleven, while August had thirty-two in the same period.

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I was cured of Black Erysipelas by MINARD'S LINIMENT. Inglesville. J. W. RUGGLES.

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