

AGRICULTURAL.

A PENNSYLVANIA SILO.

EDS. COUNTRY GENTLEMAN—After reading the article in your paper of April 25, entitled "A Kentucky Silo," I felt inclined to add my experience in three successive years in filling a silo with corn always between the milk and the glaze. The first year the corn was probably frozen, but it made good ensilage, kept well, and cattle liked it. Under the cover of boards and tar paper, three or four inches of it was spoiled, and also in the corners the whole way down, and 12 to 15 inches on the sides. This annoyed me, as I think that if the great bulk of ensilage can be kept, it ought all to remain good if we can learn how to manage it. The third year I set out to have it so.

As to corn, I find that best which is best adapted to your climate, and will make the best and biggest stalk, and set an ear or two. I have tried three different kinds, and find all good if the ensilage keeps. I weighed heavily with stone. While filling we keep step to the tune of "tramp, tramp the ensilage is keeping," and "all hands in the ensilage pit" when we stop to oil or fix up. I keep two men in all the time when the cutting is going on. I have heretofore cut 1-2 inch, but think I will cut 1-4 inch when I fill again. It takes two days to fill my silo, using No. 14 Baldwin cutter. The silo holds 45 tons, and I plant just 1 1/2 acre of corn to do it. This last year I was careful in everything to keep it, if possible, so that when I wanted to raise the cover I could put in the fork and give it to the cows instead of to the manure pile. And to my great joy, I did it, corners and sides, as well as under cover down to the bottom, was food safe and sound for butter and milk.

Some writer in the "Country Gentleman," whose name I do not recall, said that in filling the silo not to keep it quite level or higher at the sides, but higher in the middle, and then weight by laying the stones only at the sides and the end of the boards forming the cover, and a single row of stones up through the middle of the silo. This suggestion was worth the price of the "Country Gentleman" for ten years. I tried it; it took less stone, and consequently less work.

But my silo being a small one, and depending on it for feed, I wanted to keep the corners and sides as well as that under the cover. The thought occurred while pounding down clay in a horse stall, why would not this tamper be the very thing for the corners and sides of the ensilage pit when filling? I at once saw 18 inches off a 6 by 6 yellow pine sill and put a handle 3 feet long in the end, and I had a tool with which I could drive the ensilage into a paste, if needed; corners and sides were in splendid condition when taking out for feed.—J. D. D. Flourtown, Pa.

REPELLING RATS.

In answer to inquiry, I would say, build the barn in such a manner that it cannot harbor rats safely from cats and terrier dogs. Most of the barns put up in our country are about as perfect rat warrens as can be contrived. The floor of the cellar should be cemented, and its walls made of brick or stone. If a rat then gets down the stairs into it, he is easily caught by a dog, as he can make no hole here to crawl out. Nothing in the upper stories should be piled so close to the sides of the building as to prevent a small dog and a large cat getting between, to catch any vermin nesting there. All grain or meal bins, and boxes must be covered with tin, zinc or sheet iron, to prevent rats and mice gnawing through to eat them.

Many rats may be got rid of in the following easy manner: Take four pieces of joist, three feet or more long, and nail boards to these to make a square space inside. Set the lower boards three inches or more above the foot of the joist, so as to leave space for rats to run under them. Scatter corn on the ground in the center of the pen, a yard or two long and wide; lay down joist at two ends of this, and then cover the corn with boards. Place this near the barn, and it will make a nice warren for rats; and by tolling them with a few kernels of corn from the barn to the outside of this pen, they will soon make their home under the boards inside. After getting well settled there, sink the foot of each post so deep into the ground as to bring the edge of the lowest board to the pen close to the ground, so that no rat can crawl under it to escape. Now put into the pen one or more dogs, that have been trained to hunt rats; lift up the boards under which they have harbored, and there will be a lively time in catching them.

I have seen twenty or more rats caught in such a pen at a single time. A pair of well-trained dogs will dispose of so many in a few minutes. I had a terrier bitch that would kill as many probably in less than fifteen minutes. She would jump and give a rat a single grip, just back of the head, which instantly broke his neck and laid him out dead. After she had finished, she would return to look them all over, one after another, and if any life seemed to be left, give another grip, which instantly settled the matter.

FAILURES WITH ENSILAGE.

EDS. COUNTRY GENTLEMAN—It seems that "C." of Jefferson county, Ky. (p. 323), has had poor results from his wooden silo, and he is not the only one that wishes he had built something better than a wooden silo. My business takes me over the Western Reserve about half of the year, and I have made it a point to visit nearly all the different silos that have been built for the last seven or eight years. I wanted all the information I could get by closely questioning their owners to find out the failures as well as I intended to build a silo for myself. If C. will put strips of wood 1/2 by 2 inches every 16 inches, lath and plaster his silo on the sides, and then put a good cement door 1 1/2 by 2 inches thick on the bottom, being careful to make a tight joint where the side and bottom come together, he will have an air-tight silo, which he has not got now. In filling again, if he will put a good man in the pit and keep the ensilage level all the time, and the corners and sides well tramped down, and if the corners are square, give the man in the pit a 4 by 4 scantling 4 feet long, with one half rounded down to an inch and a half for a handle, so that he can pack the ensilage in the corners as much as it gets packed in the middle. C. will not be troubled with mouldy ensilage in the corners and along the sides. In every wooden silo that I have examined, there has been more or less spoiled at sides and corners, varying from 6 to 20 inches. I also found silos built of concrete walls, or frame buildings plastered inside and the bottom cemented, that the ensilage was

good clear out to the corners. I found one, with sides plastered and earth for a floor, where enough air came in through the earth to spoil considerable along the outside.

A wooden silo may do in Wisconsin but it does not fill in Ohio, and I think would be almost worthless in Kentucky. In Wisconsin I have seen a large quarter of beef hung up outside of a house in the fall, and hang there until used up by a small family. The air is different there, and we must accept these differences and act accordingly.

If C. will get a report of the Silo Convention, published in the National Stockman of March 21, '89, on pages 966-7, he will find a few things that may help him in his troubles. In the early days of silos the tendency was to build too expensive pits, and now the reaction has come, and carried some few so far on the other side, that they are recommending silos so cheap as to be almost worthless. After a while, people will adopt a happy medium between the extremes, and build a substantial building that will last as long as a barn or house. I have known several who built wooden silos several years ago to abandon them after two or three years' partial failure, and build either stone, concrete, or frame and plastered walls with cement floors. G. E. RICE, Trumbull County, O.

BUTTER MAKING IN ENGLAND.

That the butter produced from the majority of the English dairies is not made after any very definite and well-established principles was freely admitted by Lord Egerton, while speaking at Knutsford, England, recently after a lecture on "Butter-Making," by Miss Maidment, a practical authority on the subject. In order to obtain as high a price for butter as was obtained in other countries, English butter-makers, the speaker said, must aim at having a uniform quality of butter, made on some definite principle. Wholesale purchasers of butter were very particular that samples should be of the same quality. He thought it was disgraceful, seeing that though they had the best cows and best pastures, they did not get the highest standard. In cheese-making, also, an improvement was necessary. In former days Cheshire cheese was in demand abroad, but now it was seldom bought, except by foreigners, because it was not made on keeping principles, and because of its deterioration in the course of transit. He hoped that the result of the action of the Royal Agricultural Show and their own county society would be an improved method of butter-making, and they would be able to compete favorably with foreign producers.

PRESERVING MILK IN NORWAY.

A new method of preserving milk for a lengthened period, without altering its composition, and without adding any foreign ingredient, says the Farmers' Gazette, has lately been devised and brought into use in Norway. The milk, we read, is taken direct from the cow, and in the first place is cooled down to ordinary temperature, about 50 to 60 degrees Fahr., and then hermetically sealed up in tins. In this state it is exposed to a temperature of about 160 degrees, and kept at this for one hour and three quarters, or thereabouts, after which it is allowed to cool down to 100 degrees, at which it remains for some time. It is then quickly heated up again to the former temperature of 160 degrees. This alternate heating and cooling is repeated in the same manner several times, and then finally the temperature is raised to the boiling-point of water, or about 212 degrees, after which it is cooled again to ordinary temperature, when it is found to be completely sterilized, not a trace of any organism or germ being left, and is, therefore, in a state in which it can be kept for an indefinite length of time without undergoing any change.

Horseshoes of Rubber.

The proposed substitution of India rubber for metal in the manufacture of horseshoes is based upon various supposed advantages—one of these being that the former enables the horse to go easier over all kinds of roads, and rough or slippery ground without slipping.

According to this design, the shoe consists of an India rubber bottom piece molded to fit over or around the frog of the hoof, with a ledge or protecting rim rising up the front and around the level where the nails are clamped, the protection having a ledge under which a steel band or other appliances can be drawn and nipped tight to retain the rubber shoe. The band is connected by studs, which pass through the heel part of the hoof, this being cut away from the inner side for the purpose, and the stud or studs may work eccentrically to obtain grip or fixing. If the rubber shoe is used with an iron shoe, the frog portion, or pad, has a front plate and two side wings partially imbedded in it to hold the rubber shoe in place. If the rubber shoe be divided or made thin in the center a swivel or other bar can be contracted from the rear to reduce the width of the pad, so that it enters easily and also expands so as to fix the rubber shoes in position.—New York Telegram.

Each one has some talent, some preference. Let him work in that line if possible; but, while he cultivates himself in that, let him at the same time keep such a hold on the other phase of life as shall round and make symmetrical his nature. Life is so complex that we are not making the most of ourselves by working exclusively in one line.

Equally important with pure air in living apartments is sunshine. It carries with it radiance and cheer and vigour and good health. It is a purifier, warding off mould, moisture, gloom, depression, and disease. It should be admitted to every apartment of the house and made welcome at all times. It is a strong preventative of the disorders that visit shaded and musty places. It brings health and happiness that cannot be obtained from any other source. It is nature's own health-giving agent, and nothing can be substituted for it. It has no artificial counterpart. It not only touches the physical body, but it reaches the mind and soul and purifies the whole existence of man. It may cause a carpet or upholstery to fade; but it will bring colour to the cheek, light to the eye, and elasticity to the step. The closed and shaded window may throw a richness of colour upon the room, but it will bring paleness and feebleness to the occupants. This health agent is free to all, easily obtained, and one of the most economic health-preservers we have.

FLOODS OF MODERN TIMES.

The Great Chinese Flood—The Floods of Two Centuries in Europe.

The greatest of modern floods was that which resulted from the overflow of the great Hoang Ho, or Yellow River, in 1887. This river, which has earned the title of "China's Sorrow," has always been the cause of great anxiety to the Chinese Government and to the inhabitants of the country through which it flows. It is guarded with the utmost care at great expense, and annually vast sums are spent in repairs of its banks. In October, 1887, a number of serious breaches occurred in the river's banks about 300 miles from the coast. As a result the river deserted its natural bed and spread over a thickly populated plain, forcing for itself finally an entirely new road to the sea. Four or five times in 2,000 years the great river had changed its bed, and each time the change had entailed great loss of life and property.

In 1852 it burst through its banks 250 miles from the sea and cut a new bed through the northern part of Shantung into the Gulf of Pechili. The isolation in which foreigners lived at that time in China prevented their obtaining any information as to the calamitous results of this change, but in 1887 many of the barriers against foreigners had been removed and a general idea of the character of the inundation was easily obtained.

For several weeks preceding the actual overflow of its banks the Hoang Ho had been swollen from its tributaries. It had been unusually wet and stormy in north-west China, and all the

SMALL STREAMS WERE FULL

and overflowing. The first break occurred in the province of Honan, of which the capital is Kaifeng, and the city next in importance is Ching or Cheng Hou. The latter is forty miles west of Kaifeng and a short distance above a bend in the Hoang Ho. At the bend the stream is borne violently against the south shore. For ten days a continuous rain had been soaking the embankment, and a strong wind increased the already great force of the current. Finally a breach was made. At first it extended only for a hundred yards. The guards made frantic efforts to close the gap, and were assisted by the frightened people in the vicinity. But the breach grew rapidly to a width of 1,200 yards, and through this the river rushed with awful force. Leaping over the plain with incredible velocity, the water merged into a small stream called the Lu-chia. Down the valley of the Lu-chia the torrent poured in an easterly direction, overwhelming everything in its path.

Twenty miles from Cheng Hou it encountered Chungmou, a walled city of the third rank. Its thousands of inhabitants were attending to their usual pursuits. There was no telegraph to warn them, and the first intimation of disaster came with the muddy torrent that rolled down upon them. Within a short time only the tops of the high walls marked where a flourishing city had been. Three hundred villages in the district disappeared utterly, and the lands about three hundred others villages were inundated.

The flood turned south from Chungmou, still keeping to the course of the Lu-chia, and stretched out in with for 30 miles. This vast body of water was from 10 to 20 feet deep. Several miles south of Kaifeng the flood struck a large river which there joins the Lu-chia. The result was that the flood rose to a still greater height, and, pouring into a low-lying and

VERY FERTILE PLAIN,

which was densely populated, submerged upwards of 1,500 villages.

Not far beyond this locality the flood passed into the province or Anhui, where it spread very widely. The actual loss of life could not be computed accurately, but the lowest intelligent estimate placed it at 1,500,000, and one authority fixed it at 7,000,000. Two million people were rendered destitute by the flood, and the suffering that resulted was frightful. Four months later the inundated provinces were still under the muddy waters. The Government officials who were on guard when the Hoang Ho broke its banks were condemned to severe punishment and were placed in the pillory in spite of their pleadings that they had done their best to avert the disaster.

The inundation which may be classed as the second greatest in modern history occurred in Holland in 1530. There have been many great floods in Holland, nearly all due to the failure of the dikes which form the only barrier between it and the sea. In 1530 there was a general failure of the dikes, and the sea poured in upon the low lands. The people were as unprepared as were the victims of the Johnstown disaster. Good authorities place the number of human beings that perished in this flood at about 400,000, and the destruction of property was in proportion.

In April, 1421, the River Meuse broke in the dikes at Dort, or Dordrecht, an ancient town in the peninsula of South Holland, situated on an island. Ten thousand persons perished there and more than 100,000 in the vicinity. In January, 1861, there was a disastrous flood in Holland, the area sweeping over 40,000 acres and leaving 30,000 destitute, and again in 1876 severe losses resulted from inundations in this country.

The first flood in Europe of which history gives any authentic account occurred in Lincolnshire, England, A. D. 245, when

THE SEA PASSED OVER

many thousands of acres. In the year 358 a flood in Cheshire destroyed 3,000 human lives and many cattle. Four hundred families were drowned in Glasgow by an overflow of the Clyde in 758. A number of English seaport towns were destroyed by an inundation in 1014. In 1483 a terrible overflow of the Severn, which came at night and lasted for ten days, covered the tops of mountains. Men, women, and children were carried from their beds and drowned. The waters settled on the lands and were called for one hundred years after the Great Waters.

A flood in Catalonia, a province of Spain, occurred in 1617, and 50,000 persons lost their lives. One of the most curious inundations in history, and one that was looked upon as a miracle, occurred in Yorkshire, England, in 1686. A large rock was split asunder by some hidden force, and water spouted out, the stream reaching as high as a church steeple. In 1771 another flood which had disastrous results, and which was known as the Ripon flood, occurred in the same province.

In September, 1797, mountain torrents inundated Navarre, and 2,000 persons were

drowned. Twice, in 1787 and in 1802, the Irish Liffey overran its banks and caused great damage. A reservoir in Luroca, a city of Spain, burst in 1802 in much the same way as did the dam at Johnstown, and as a result 1,000 persons perished. Twenty-four villages near Presburg and nearly all their inhabitants were swept away in April, 1811, by an overflow of the Danube. Two years later large provinces in Austria and Poland were flooded and many lives were lost. In the same year a force of

2,000 TURKISH SOLDIERS,

who were stationed on a small island near Widdin, were surprised by a sudden overflow of the Danube, and all were drowned. There were two more floods in this year, one in Silesia, where 6,000 persons perished, and the French army met such losses and privations that its ruin was accelerated; and another in Poland, where 4,000 persons were supposed to have been drowned. In 1816 the melting of the snow on the mountains surrounding Sorabane, Ireland, caused destructive floods, and the overflow of the Vistula in Germany laid many villages under water. Floods that occasioned great suffering occurred in 1829, when severe rains caused the Spey and Findhorn to rise fifty feet above their ordinary level. The following year the Danube again overflowed its banks, and inundated the houses of 50,000 inhabitants of Vienna. The Saone overflowed in 1840, and poured its turbulent waters into the Rhone, causing a flood which covered 60,000 acres. Lyons was flooded, 100 houses were swept away at Avignon, 218 at La Guillotiere, and 300 at Vaio, Marseilles, and Nimes. Another great flood, entailing much suffering, occurred in the south of France in 1856.

A flood in Mill River valley in 1874 was caused by the bursting of a badly constructed dam. The waters poured down upon the villages in the valley much as at Johnstown, but the people received warning in time, and the torrent was not so swift. Several villages were destroyed and 144 persons drowned. The rising of the Garonne in 1875 caused the death of 1,000 persons near Toulouse and 20,000 persons were made homeless in India by floods in the same year. In 1882 heavy floods destroyed a large amount of property and drowned many persons in the Mississippi and Ohio valleys.

Behring Sea.

Chicago Herald: It is a principle of international law that the high seas are free and open to all nations. They cannot become the property of any nation, for no nation can enclose and possess them. They are for the common benefit of mankind. The present Secretary of State is evidently of a different mind and intends to establish a new rule for the guidance of nations. He intends to show them that ordinary laws do not bind the great American people, and that when the United States choose to assert their right to an open sea that right must be respected. The claim now made by the Government is that Behring Sea belongs to this country by virtue of the purchase of Alaska from Russia, and that the United States have an exclusive right to all the seal fisheries therein. A glance at the map will show that this sea is in reality a part of the Pacific Ocean. It is more than a thousand miles wide. It is not inclosed by land. It has always been a highway for all nations. It is true that when Alaska was owned by Russia, that empire claimed exclusive right to the sea, but by no power was that claim more successfully contested than by the United States. When John Quincy Adams was Secretary of State under Monroe he negotiated a treaty with Russia by which that power abandoned its absurd claim. England made the same contest and secured the same abandonment. When the United States secured Alaska the astute Mr. Seward thought there would be no harm in having Russia convey all her right to Behring sea along with the territory, and this he obtained. But it conveyed no right to the sea for the very good reason that Russia had none. The State Department is now reviving the old Russian claim and is seeking to maintain an exclusive jurisdiction over that vast body of water. In so doing it stultifies the past record of the Government, as well as runs counter to every international principle. It is not likely that the American people will support Mr. Blaine to the verge of war upon any such contention.

Thirty Years in a Whale.

A New London, Conn., despatch to the New York "Sun" says:—Captain L. Nathan Rogers, an old whaler of this city, has just returned from a cruise among the oil barrels and try kettles on New Bedford's wharves. He says the absorbing topic among whalves fishermen there is the arrival in that city of a harpoon which was taken from a whale captured in the Ochotsk Sea last summer by the barque Cape Horn Pigeon. The iron bore the name of the ill-fated ship Thomas Dickason, and was as bright and sharp as when first sunk through the side of the whale. It had broken off close to the shank and was imbedded in the blubber. This is the first fragment of the Dickason to return to New England after thirty years. She sailed from New Bedford on Nov. 2, 1856, and was lost in the Ochotsk Sea in the summer of 1859. Captain Rogers, who is well versed in the habits of the leviathans of the deep, says the whale must have been struck by the Dickason on her last cruise in those waters. On the iron was the name of the maker. Its brightness is accounted for by the preservation of the whales blubber. The whale was a large one, and proved a good catch for the Cape Horn Pigeon. Mr. Wm. R. Wing now has the harpoon.

Boston Takes Alarm.

Boston Herald: The effort to exclude the Canadian railroads from participation in American trade has been carefully planned, and those engaged in it have been for more than a year past laying the wires and rolling the logs in such a way as to make it easy for the Senate Committee to report a bill in their favor. If they succeed, as from their hard work and political influence they have good reason to think that they will, the railroad kings of New York and Pennsylvania will have New England at their mercy. They are now compelled to allow freight to come to Boston on terms similar to those paid by merchants in New York and Philadelphia, because the Grand Trunk and the Canadian Pacific force them so to do; but if they relieve themselves from this competition, Boston merchants can whistle for their trade.

A Menace to Human Lives.

"The floods of the East and the Fires of the West," was the subject of a recent sermon by the Rev. F. J. Brobst's at the Westminster church, Cincinnati. The text was Matthew, seventh chapter, twenty fifth verse: "A certain man builded his house on a rock and the wind blew and the rain descended and the floods came and beat upon it, but it fell not, for it was founded upon a rock."

"Not very long ago," said the speaker, "I travelled through the Conemaugh valley, and as the train pulled over woody heights the songs of the birds could be heard on the pine-clad hills, and the picturesque valley seemed alive with joy and gladness. In the last few days what a change has come over the scene. Instead of warbling birds are moaning widows and fatherless children, and desolation and suffering have taken the place of happiness and contentment."

"Few of us have the power of imagination to picture the awful horrors of that flood as it came upon its victims. Some heeded the alarm and rushed to a place of safety, while others, careless and indifferent, stood leaning over the balustrade of the iron bridge watching the seething, boiling, yellow mass of water as it rushed onward through its narrow bed until they were roused from their feeling of security by an awful roar. Looking up they saw Niagara, transported thither, tumbling down the narrow valley. Six towns were tossing upon its billows, and when the mad fury of the water subsided 15,000 souls had been hurried into eternity. While hearts stood still in contemplation of this unprecedented calamity word came that the seas of the Pacific were reddened by a conflagration that was second only to our own great fire. Such are the changes of our earthly existence."

"Can we read the signs of the times by the dark omens of the sky and earth? It is a premonition of a great change that will usher in a new era?"

"The flood brought out the heroic side of our humanity. The quite bravery of husbands, wives, sons, and daughters deserves a place in the niche of fame along with the daring deeds of the battlefield. A woman drifting down the stream with her child clasped in her arms seized a rope dangling from the embankment. It will not bear their combined weight—she ties it round her babe and calmly sinks down into bitter death. Another places her child on the floating debris and, kissing it farewell, is engulfed in the putrid waters. A young man, against the weeping protests of his wife, pushes his frail boat into the boiling flood strewn with wrecks that threaten every moment to crush him and saves twenty-five souls, while a physician, with his breast crushed in, goes on steadily performing the functions of his office regardless of his own injuries."

"These are but a few of the instances that place the sublime side of humanity before our eyes and they teach us that the skeptic's doctrine of the utter selfishness and depravity of human nature is wholly false. But what was it that transformed this picturesque valley into a vale of horrors? We all know that the giving way of the dam precipitated the flood, but whose fault was it that the dam gave way? Searching investigation into the cause of that disaster has at last revealed the truth and placed the blame where it should properly rest. The dam was a flimsy structure. No engineer would risk his reputation nowadays in the construction of such an affair. Sixty years ago it broke and hurried death and destruction upon those living below. Originally built for business purposes it has for years been a menace to the inhabitants of that valley that it might serve the pleasures of a sporting club of Pittsburgh gentlemen. They had been told that \$5,000 would make the dam secure, but millionaires are chary of spending money for the protection of human lives, though they squander it eagerly on seaside villas and mountain bridle paths."

"It is a terrible thing to charge the fault of such a calamity upon any body of men, and yet should not the whole world rise in indignation and denounce the criminal negligence—it can be called by no other name—that resulted in such a fearful loss of life." When men learn to think less of their own pleasure and more of the interests of others a repetition of the Johnstown flood will be impossible.

"There is a deep and permanent belief that this calamity is only an outward sign of what is transpiring in the spiritual world. It is only a visible manifestation of what is taking place in the soul. We pursue our wonted course with the great danger of eternal punishment continually hanging over our heads, and though our warnings are frequent we heed them not. The lost souls of Johnstown had been warned so often that they laughed at the idea of danger, and there are those among us to day who ridicule the warning to seek safety in regard to their eternal interests. It should serve as a trumpet-call to all whose faith is built on a slight foundation to put themselves in a place of safety and seek protection on the rock of the Lord Jesus Christ."

The Projected Quebec Bridge.

The St. Lawrence is to be crossed at Quebec by a gigantic railway bridge, which will very materially affect the traffic of the two great railways of Canada—the Grand Trunk and the Canada Pacific—as well as an important part of the railway system of the New England States. The great depth of the St. Lawrence opposite Quebec has hitherto been a powerful argument against the construction of a bridge, but engineering skill has overcome this obstacle with a scheme to build a cantilever bridge, which will cost close up to \$10,000,000. The width of the river from shore to shore at Quebec is 24,000 feet (about 4 1/2 miles). Two main piers are to be constructed of solid granite in 40 feet of water, about 500 feet from each shore. These two piers are to support a cantilever bridge of a span of 1,442 feet. The total length of the bridge, with the approaches, will be 34,000 feet (nearly 6 1/2 miles). The top of the bridge from high water level will be 408 feet, and the largest ocean steamers will be able to pass under it. The principal object in building the bridge is to connect the Intercolonial railway from Halifax and St. John to Quebec, which is run by the Canadian Government at a great annual loss to the country, with the Canadian Pacific railway. This is the only link uncompleted necessary to give the Canadian Pacific railway an uninterrupted line from the Atlantic to the Pacific ocean through Canadian territory.

An opera house is being built in Buenos Ayres which will cost \$700,000 and seat 4000 persons.