

FIFTY YEARS OF OCEAN CABLE

ANNIVERSARY OF ITS LAYING WILL OCCUR IN AUGUST



OLD BANK BUILDING TERMINUS OF ATLANTIC CABLE AT DUXBURY



CYRUS W. FIELD



PAYING OUT THE CABLE

Just 50 years ago next August, on the seventeenth day of the month, the first telegraphic message across the Atlantic via the new cable was sent from England to America. The message was of 90 words, from Queen Victoria to President Buchanan. It took 67 minutes to transmit. It was the first tangible proof that one of the greatest attempts of man in the field of science had succeeded.

When a little company of men, under the leadership of Cyrus W. Field, began to organize for the purpose of bringing the old world and the new within speaking distance of each other by means of a protected thread of wire across the Atlantic, they were hoisted at as madmen. Capitalists who invested their money in the scheme were thought by their friends to have become bereft of reason. Few imagined the feat possible.

By formal agreement, on September 29, 1856, the Atlantic Telegraph Company was organized. Its object was "to lay, or cause to be laid, a submarine cable across the Atlantic." Among those prominent in the forming of the company were Peter Cooper, Chandler White, Moses Taylor, Marshall O. Roberts and Cyrus W. Field.

The first step in the program was to be the laying of a cable across the Gulf of St. Lawrence, from Cape Ray Cove to Cape North. The first trial was disastrous, because of a furious storm, but in the following year the cable was successfully laid. Newfoundland was to be the western terminus.

Assistance was obtained from the United States, Newfoundland and English governments. The United States frigate Niagara, which was detailed to assist in submerging the cable, went to England April 24, 1857. The coiling of the cable in Liverpool occupied three weeks. A strand of seven copper wires composing the conductor, occupied the center. There was a gutta percha insulation, a covering of specially prepared hemp, and then the outer covering of iron wire, for protecting the cable.

Five large cones were arranged in the hold of the Niagara, round which the cable was coiled. The length carried made a total of 1,264 miles. The remainder was carried by the English ship Agamemnon, 1,700 nautical miles being required between the terminal at Newfoundland and Ireland. Specially constructed and complicated apparatus was designed for paying out, and, if need be, winding in the cable.

Nature seemed to favor the project, for extending along the bed of the ocean, exactly between the two points to be connected, is a great plateau, like an immense prairie, stretching over an extent of 1,400 miles from east to west, with an average depth of about two miles. As it approaches the Newfoundland coast it is entirely free from the effects of icebergs which ground on shallow bottoms. In every other part, the Atlantic is characterized by abrupt declivities and mountain heights.

Another advantage was found in the deposit of infusoria, covering the bottom in abundance. The material showed a tendency to unite with the iron wire protecting the cable, thus forming a concrete mass, making in effect a bed of down for the cable to rest upon.

The landing of the cable in Dolus bay was successfully accomplished on the 6th of August, 1857. Never before had such a mass of people assembled on the shores of that bay. They came from miles around—from their homes on the steep hillsides and the mountain passes, from the storied scenes of Killarney in the interior, and the bleak coast in the south.

It was a great day for all. Five days the Niagara sailed, overcoming great difficulties in the laying of the cable; then, on the sixth day, when the Niagara had left the shore 300 miles behind, a mistaken order to put on brakes resulted in a strain which broke the cable.

There was nothing to do but return to England. The Niagara sailed for New York the following November. Of course a great cry was raised that the scheme had been fairly tried once and failed, and that any further attempt to achieve this impossibility was madness and a criminal waste of the stockholders' money. But in the face of all this opposition, the little band of resolute men, led still by the indomitable Cyrus W. Field, determined to make another attempt.

They had learned by their experience many valuable lessons. One that it would be better for the two vessels carrying the cable to meet in mid-ocean, make a splice, and then sail in opposite directions. Other lessons related to improvements in the paying-out machinery—it was found impossible to wind in the cable after it was once out, as the very weight of the line was sufficient to break it.

The telegraph squadron arrived at Plymouth, England, June 3, and after an experimental trip of three days, having received a fresh supply of coal, started for mid-ocean on the 10th, the point of rendezvous having been decided.

When the splice was finished, connecting the cable of the Niagara with that of the Agamemnon, the two vessels parted. A terrible storm came up soon afterward, and after 142 miles and 280 fathoms of cable had been paid out the line broke. It was only by good fortune that the vessels returned to land in safety.

While the squadron was lying in the harbor of Queenstown, meetings were held by the board of directors in London. It was proposed to abandon the enterprise and sell the cable. When the news of this reached Mr. Field, he started in great haste for London. He remonstrated with the despondent, upheld the wavering, and finally, by his will and courage, obtained consent to make another attempt.

The vessels, accordingly, met again at the rendezvous, on July 28, and after making the splice with some ceremony, separated. Anxiety was keen, as a kink in the cable, or a hole running through the gutta percha through which not even a hair could be forced, would render all the work unavailing.

On the 5th of August, 1858, the eastern end of the cable was landed in Trinity bay, Newfoundland, and the press of the country sounded loud praises in honor of the triumph. On the 17th of August, the famous messages were sent and received by cable between Victoria and President Buchanan.

Concerning the message, one of the electricians on board the Niagara is reported to have made the statement that it was "cooked up" for commercial purposes, his ground being that the cable had ceased to test out long before reaching Newfoundland, and that on several occasions in paying it out accidents had occurred that had destroyed the insulation of the cable.

In 1865 another unsuccessful attempt was made to lay an Atlantic cable. The first operative cable was not laid until 1866.

A part of transcontinental cable history that possesses special local interest is the landing of the French Atlantic cable at Duxbury, in the year 1869. This was the first cable to stretch actually from the shore of America to the shore of Europe.

Whales in Portland Harbor.

Two whales, one about 100 feet and the other about 75 feet in length, were seen Monday swimming about the harbor by several cottagers at Evergreen Landing, Peaks Island.

The monsters were peacefully romping about in the water and when the steamer Pilgrim came down the harbor they swam some distance away, but remained in view of the people all the time flapping their huge tails out of the water and spouting water. It was a sight not often seen in Portland harbor.—Lowiston Journal.

India's Vast Petroleum Deposits.

The petroleum deposits of India, including Burma, have scarcely been disturbed and the magnitude of the possible trade of India in petroleum and its products can hardly be estimated. In 1906-07 Burma produced 137,654,000 gallons and exported 55,796,000 gallons, all of it going to Indian ports.

A MAN, A WOMAN AND A BABY

BY C. F. MARTIN

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He was very small, very plump, and very pretty; he was possessed of a somewhat philosophical turn of mind. He spent most of his time lying in a soft bed in a bright, sunny nursery, and he was regularly given his dinner in a nicely warmed bottle.

The person who was most familiar to his wondering eyes was a dainty, white-clad, white-capped girl, who was always cheerful and happy. It made the baby happy to look at her; he expressed his pleasure by crowing in a language which he and the nurse seemed perfectly to understand.

He was dimly aware that outside the narrow limits of his nursery there existed a big, noisy, confusing world. He had received vague impressions concerning it during the brief hours which he usually passed outside on sunny afternoons. On these occasions, however, the fresh air always put him to sleep so promptly that he had had but little opportunity to examine the strange things surrounding him.

Remotely connected with his inner life there appeared to be other personalities than that of his nurse, although he had never been able to satisfactorily analyze their relationship.

On rare occasions a man had made brief visits to the nursery. He generally looked gravely at the baby for a short time, asked a few calm questions of the white-capped nurse, and went out.

The baby always felt much in awe of the man; he never crowed when the man was present.

More frequently the baby had a visitor who in some respects resembled his nurse, except that she was much more beautiful and more dazlingly attired. She often bent long over the bed, and looked earnestly at the baby. Her face, despite its beauty, never seemed happy like that of the nurse, and she never talked in the language which the baby and the nurse understood.

The baby's face always grew solemn with wonder and expectation when the woman stood over him. Somewhere in his being he felt a prompting to crow to her; he somehow felt that it might bring a smile to her sad eyes—but he had never quite dared.

One day as the nurse was preparing his dinner the woman entered. She

The man studied the baby gravely for a moment. "It seems to me he does look a bit under the weather," he said, judicially. "I wonder if he gets enough to eat."

The baby, emboldened by the contents of his bottle and somewhat reassured by the attention he was receiving, gave a little gurgle, followed by the best crow he was capable of producing. Then he smiled cordially at the two grave faces above him, confident that they would understand that he was ready to accept overtures for his favor.

The woman's eyes lighted up; she looked at the man. He met her gaze for a moment, and glanced away.

"Queer how thoroughly his eyes are like yours," he said, with an effort at common-placeness.

"And his mouth and nose are replicas of yours." She stooped impulsively and kissed the baby's tiny mouth. Looking up, she caught the man's eye, and something she saw there brought the rosy flush back to her cheek.

"It's been a long time," he said, slowly, "since—"

"Yes, a long time," she murmured, as if phrases did not have to be completed to be understood.

"Ever since—" he began, and stopped again.

"Since that night in the conservatory," she mused, "when you saw Cousin Tom—"

"What do you mean?" he interrupted, quickly. "Do you mean it wasn't Dick Challenger that kissed you?"

"He has never done such a thing in his life!" she exclaimed.

"Oh, Mary," he cried, with a rush of understanding, "why didn't you tell me it was Tom?"

"Because you never asked me," she replied, "you chose to put your own construction on things, and to treat me coldly, and to act horrid with—"

But her speech was never finished, and the baby squealed with delight at seeing such demonstrations from this enigmatical man.

When the nurse came in a few moments later she found that the man and the woman had learned the language of the baby so well that all three were holding an animated conversation, and the subject of it all seemed to be the baby.

"Lizzie," said the woman, whose eyes were shining, "hereafter I will give the baby his bottle every day at this hour."

MAKING GODS FOR INDIA.

Foreign Countries Cutting Into Profitable Native Industry.

Few of us realize that into the vast triangle of Hindustan is packed one-fifth of the entire human race—more than 200,000,000 Hindus, 60,000,000 Mohammedans, 10,000,000 aborigines and well over 35,000,000 of other miscellaneous peoples, making up a population of over 300,000,000, speaking scores of different tongues and divided into hundreds of separate states.

The most important industry of India is agriculture, for the people are a race of farmers, and nearly two-thirds of the masses cultivate the soil, eking out a living so scanty that the slightest failure of the monsoon brings acute distress, if not positive famine.

It is perhaps for this reason that India is the most god-ridden region on earth. Her deities are numbered in millions, far, quite apart from the greater gods, every little hamlet between the tremendous Himalayas and Cape Comorin has its own set of deities, dreadful and beneficent.

From this it will be seen that god-making in India must necessarily be an immense business, and just now there is much feeling among the native artificers over this holy and profitable industry being cut into by foreign merchants and traders. Only the other day an enormous five-tiered Juggernaut car of gayly painted wood and steel was made in Calcutta, and of late years Birmingham and Philadelphia have both secured big slices of the traffic in gods.

Every village, especially in South India, is supposed to be surrounded by evil spirits, always on the watch to inflict disease and misfortune on the people. At the same time every little hamlet has also its guardian spirits.

Our Older Civilization.

You always have to travel to the east for monuments of a time older than your own. New Yorkers go to Europe, Europeans go to China and Japan. But it is not often that New Yorkers think of themselves as typifying something of this kind to others, says the New York Press. Yet in a recent issue of a Chicago paper the editor of questions answered column suggests to one of his readers that she go to the Catskills or White mountains for a walking tour rather than to Colorado, the one given reason for the eastern trip being that the inquirer "will meet an older civilization."

It Took Everything.

Naylor—Sorry to hear you had scarlet fever at your house. That's a bad disease. They say it usually leaves you with something.

Poppley—Huh! It isn't likely to leave me with anything, judging from the doctor's bill.



Woman Kneelt by the Little White Bed.

was very pale, and her beautiful eyes were shadowy.

"You may go out for an hour, Lizzie," she said, "I will give the baby his bottle to-day."

The nurse's eyes opened wide with astonishment, but she made no comment as she complied.

After the nurse had gone the woman knelt by the little white bed, and mystified the baby beyond measure by bursting into tears. For a time she sobbed uncontrollably, while the baby forgot his bottle in his wonder.

When she grew calmer she poured out her heart to the baby. He seemed to understand, and she had no other confidant. She told him many things of neglect, misunderstandings, and heartbreaks. Finally she ceased talking, and sat motionless, her dark eyes gazing absently out of the window.

The door opened softly, and the woman started to her feet; when she saw the man a quick flush sprang to her cheeks.

"I beg your pardon," he said, instinctively lowering his eyes, "I did not mean to intrude—I did not know you were in."

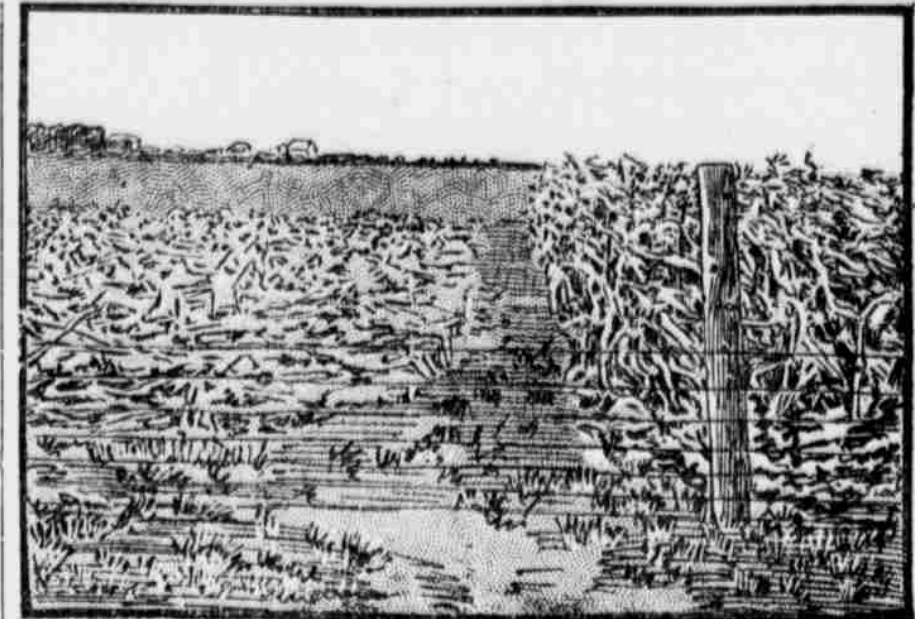
"I—I have been giving the baby his bottle," she stammered, conscious of her tear-stained face. "Don't let me drive you away," she continued, as he half-turned toward the door. "Did you come to see the baby? I didn't know you—"

"Ever came to see him?" he supplemented, as she hesitated. "Yes, I come in now and then to see how he is getting along; Lizzie is rather young to have the care of a baby."

"Don't you think he is a little pale to-day?" she asked.

HOGGING OFF CORN IS AN ECONOMICAL PLAN

Helps to Solve the Farm Labor Problem.—By D. A. Gaumnitz, M. S., Agr., Minnesota.



Portion of a Corn Field That Has Been Hogged Off. On the Right May Be Seen the Standing Corn Before the Hogs Are Turned In.

Note.—Pigs should not be on one field for more than 20 days, and better if only 14 days.

The variety of corn usually grown in a locality is the proper kind to grow for hogging off purposes, since it is probably the best adapted to the locality and gives the largest yield. However, getting an early start in the fattening process is very advantageous, and it sometimes happens when pasture supplies are short or the early sale of hogs is desirable, that such a variety does not mature early enough. To be prepared for such conditions, it is well to grow a sufficient amount of sweet corn or early maturing flint corn to tide over until the field corn is ready for use. No more than is sufficient for early fall feeding should be grown since it costs just as much to grow these varieties as it does the dent and they yield much less. Flint corn is preferable to sweet corn for hogs, and field feeding of flint corn gives better results than where husked and fed after the corn has hardened.

One of the great objections in growing flint and other early varieties of corn has been the difficulty of harvesting them. Feeding them off with live stock eliminates this objection, and it would seem that they might be grown and utilized more extensively.

Pigs weighing from 100 to 140 pounds are best suited for field feed-

They grow and thrive better when they have it, and some means of supplying it to them fresh, and in large quantities, must be provided. When in the field, hogs do not come up and drink in droves as they do in the yards; therefore, it is necessary to keep water before them continually. When fields adjacent to the farmstead are used, hogs can be brought up to the yards and watered or fed slop as usual; where fields remote from the farmstead are used, the simplest way is to fill several barrels or casks with water and haul them by team on a stone boat or other conveyance to the field. Enough can thus be taken out at a time to last for two or three days.

There are no definite data at hand to determine just how large an area it is advisable to allow hogs at one time in feeding off corn. Results at the Minnesota station show that where it took the hogs 20 days to clean up a field of corn they did not make as good gains during the latter part of the period as during the earlier part. Some farmers who have tried it claim that as good results are obtained by turning into the whole field at once as by fencing into lots. This is a matter to be settled largely by circumstances such as the price of labor, the shape of the fields, the cost to fence them,

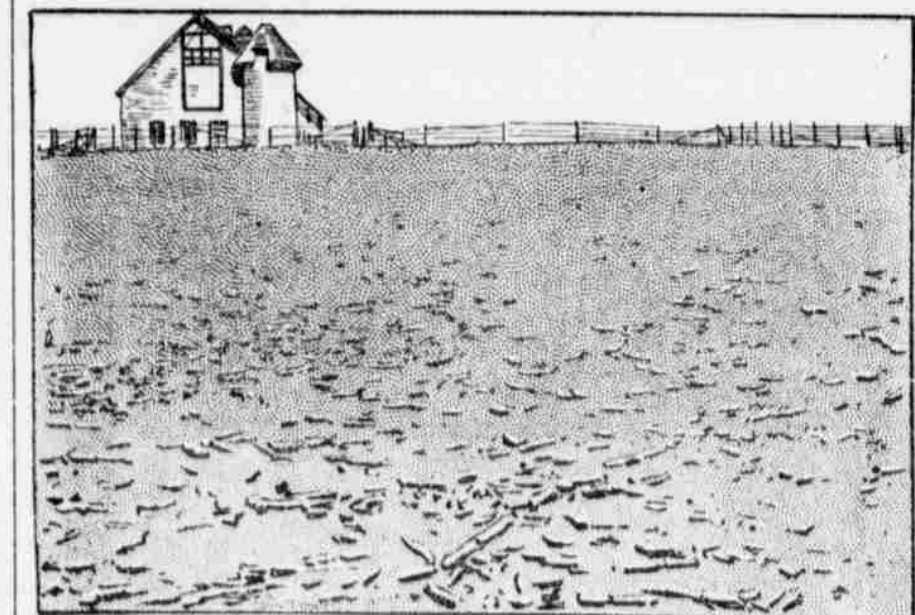
Showing Approximately the Number of Days Required to Hog Off an Acre of Corn by a Given Number of Pigs Weighing 125 Pounds.

	Average Number of Pigs	WITH CORN SHRUNK TO JAN. 1, and YIELDING:									
		30 bu. per acre	35 bu. per acre	40 bu. per acre	45 bu. per acre	50 bu. per acre	55 bu. per acre	60 bu. per acre	65 bu. per acre	70 bu. per acre	
Will keep 10 Hogs	125	22.5	26.2	30.0	33.7	37.5	41.2	45.0	48.7	52.5	
Will keep 20 Hogs	125	11.2	13.1	15.0	16.8	18.7	20.6	22.5	24.3	26.2	
Will keep 30 Hogs	125	7.5	8.7	10.0	11.2	12.5	13.7	15.0	16.2	17.5	
Will keep 40 Hogs	125	5.6	6.5	7.5	8.4	9.3	10.3	11.2	12.2	13.1	
Will keep 50 Hogs	125	4.5	5.2	6.0	6.7	7.5	8.2	9.0	9.7	10.5	
Will keep 60 Hogs	125	3.7	4.4	5.0	5.6	6.2	6.8	7.5	8.1	8.7	
Will keep 70 Hogs	125	3.2	3.7	4.3	4.8	5.3	5.8	6.4	6.9	7.5	
Will keep 80 Hogs	125	2.8	3.3	3.7	4.2	4.6	5.1	5.6	6.1	6.5	

ing since they have at that weight formed a good amount of bone and muscle for framework, and are in a condition to fatten rather than to grow. Those that have been grown on pasture are better fitted for the work than those that have been confined in pens, as they are more active, and have had more experience in gathering food for themselves. They, therefore, eat corn more readily and require less amounts of expensive mill feed. Shoats of this weight may be expected to gain about 1.4 pounds daily. In 60 to 70 days of feeding they should gain approximately 92 pounds.

Hogs weighing from 200 to 240

and particularly the soil and climatic conditions. Where there is much rain and the soil is sticky the areas should probably be limited so that they can be cleaned up in 20 days or less. Where there is but little rain, and the soil is sandy or gravelly, there is perhaps no good reason for limiting the amount of corn beyond that which they can consume before the end of the season. If by mismanagement or accident any part of a field is left unfinished brood sows or stock hogs may advantageously be used to clean it up, and if the amount is large, then they should be turned in for only a short period at a time, as their breeding qualities are



A Corn Field That Was Hogged Off in the Fall, Then Disked Twice and Harrowed Once the Following Spring.

pounds almost always bring good prices. It is not unreasonable then to expect to start with pigs that weigh from 110 to 140 pounds. If farrowed in early April, pigs will make these weights by September 10.

Old brood sows that are thin in flesh fatten up very quickly when turned into a field. A few weeks on early varieties of corn will usually permit such sows to be marketed early or before it would be possible following the common method of feeding.

While eating corn in the field hogs require a great deal of clear water,

easily injured by excessive corn feeding.

For convenience, a table has been arranged showing approximately the number of days required to hog off an acre of corn yielding various amounts in order to enable the feeder to judge as to the acreage of corn he will need to inclose at a time for his pigs.

Comfort is highly essential to the growth and well-being of pigs; and while they are out in the fields shelter of some sort must be provided for