Three hundred years ago Samuel de Champlain, the French explorer, founded the settlement of Quebec. In commemoration of its tercentenary the city of Quebec recently had the greatest celebration in its history, and one of the greatest ever held in the New World. The city gave itself up to festivities for ten days, and Canadians of both British and French ancestry joined in making the event one to be remembered. The celebration was attended by the Prince of Wales, by representatives from all the principal governments and by the greatest collection of warships, comprising English, French and American vessels that ever gathered in the St. Lawrence river. The United States was represented by Vice President Fairbanks and Rear Admiral W. S. Cowles, brother-in-law of the President.

Civil, religious, military and naval authorities participated in the various ceremonies and festivities. There were huge and costly pageants, fetes, military parades and naval reviews to charm both eye and ear. The celebration was attended by nearly all Canada, and thousands of expatriated Canadians gathered from the various foreign countries in which they have made their homes. The landing of Champlain on the shore of the St. Lawrence and his selection of the spot on which Quebec, the oldest French settlement in Canada, is built, were reproduced. A great historical pageant was given, illuminated floats representing different events in the history of Quebec. There were parades in which the various crack Canadian regiments took part. Premier Laurier and other noted speakers made addresses. There was a review of the English, French and United States vessels in the St. Lawrence river. Thanksgiving mass was held on the Plains of Abraham by the Catholics of the city, headed by the Canadian primate, and thanksgiving services were held in the Episcopal cathedral. There was a great shore parade and a scene enacted representing the landing of Wolfe's force, the ascent up the heights and the battle of the Plains of Abraham. Then farewells were exchanged and the British squadron took its departure. The next day the French vessels followed suit, and finally the New Hampshire heaved anchor and bade farewell to Quebec.

Evolution of the Street Car

Three hundred years ago an English coal miner laid some wooden beams in the muddy road leading from his colliery, for the wheels of his coal carts to run on; the other day a coal mine owner from the same country boarded an electric car in New York and made a tour of the subway. The boards in the muddy road were the ancestors of that street car, writes B. R. Wilson.

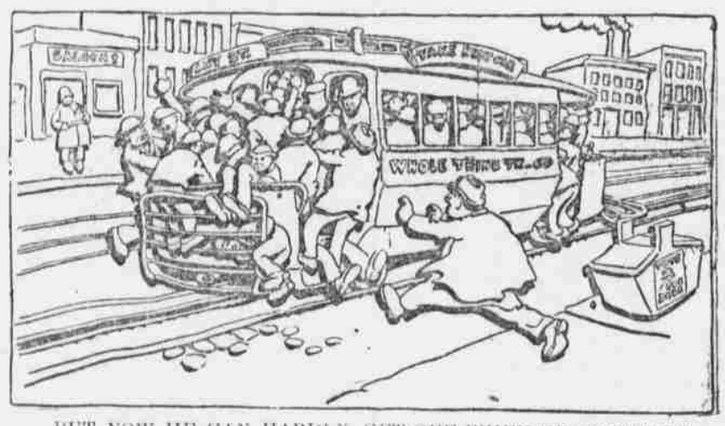
The little expedient of the English miner, which made heavy hauling light, marked the beginning of the "tramway," the great-grandfather of the railway, the thing which made street cars possible. These wooden beams served their purpose very well until they began to wear out. Inventive genius was equal to the occasion; the wooden beams were plated with iron. Thin iron bands were fastened to the top of the beam to take the wear of the cart wheels. This was all right as far as the top was concerned, but the wooden beams rotted on the bottom; so they made them out of iron entirely and laid them on short pieces of wood which could be cheaply replaced when they rotted. To keep the wheels of the coal carts from running off the rails was the next problem, and they solved it by putting flanges on the outer sides of the rail. In 1789 William Jessop, the father of the street railway, took the flanges off the rails and put them on the cart wheels and the real evolution of the street car began.

A clumsy omnibus car drawn by horses made trips over this railway, carrying passengers. The car was a big stage coach, or rather three stage coaches in one, for there were three compartments, each of which resembled a small stage coach, and it had the name "John Mason" painted above the center door.

About twenty years later the Sixth avenue street railway was built and the street car craze began. It really amounted to a craze, for thirty street car companies began business during the next five years. During the ten years from 1860 to 1870 eighty-five street railways were built. The census twenty years later showed 769 street railways in operation. In two years this number increased to 987.

The street railway was a success, therefore it was the object of various attempts at improvement, for in America, whatever is a success must be improved. People wanted to go faster than the one poor horse could pull the car, and so many were satisfied to go slow that the little car the one horse pulled would not hold them all. They made larger cars and hitched two horses to them, but two horses could not go any faster than one horse since they had doubled the size of the car; so inventive genius kept the patent office up nights examining their claims for improvements in street railways.

IN THE OLD DAYS THE PASSENGER WAS IN DANGER OF FALLING OFF.



BUT NOW HE CAN HARDLY GET OFF WHEN HE WANTS TO.

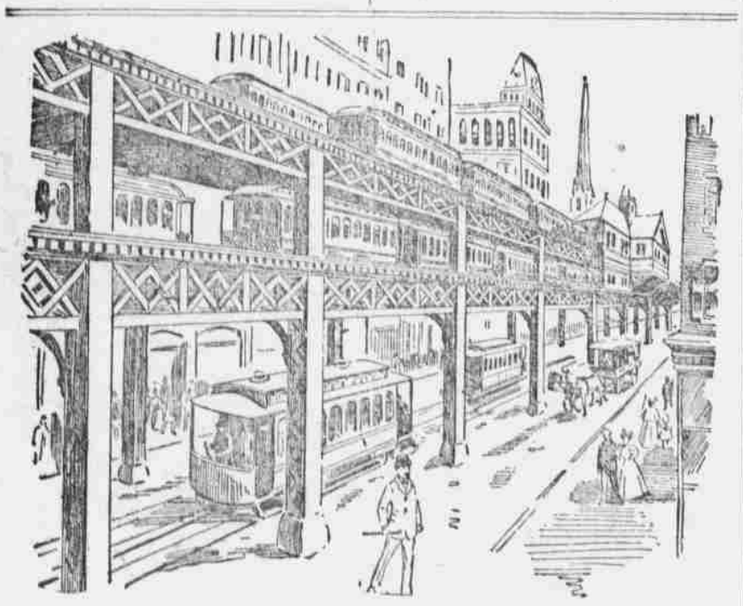
The most popular of these improvements were the "dummies," steam engines mounted on wheels and boxed up to make them attractive. Their popularity was short-lived. In the cities, however, but suburbanites consented to ride behind them long after they had disappeared from the city streets. But, until Lieut. Frank G. Sprague, U. S. N. (resigned), built the first successful electric railway in 1888, the "dummies" were the only things the suburbanites had to ride behind.

The Cable System.

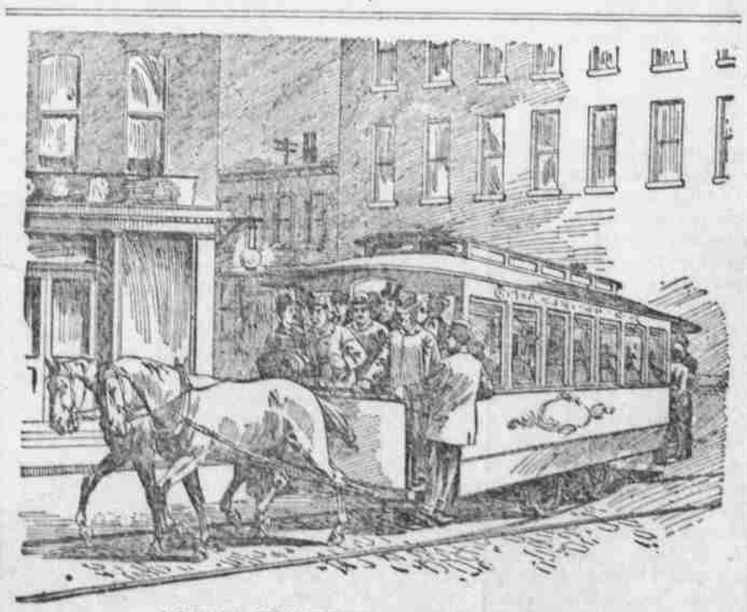
The gap between the "dummies" and Sprague's electric railway, however, was about twenty years wide, and it was filled with numerous attempts to help the eager passengers to hurry. The first cable road was laid in San Francisco in 1873 by Andrew S. Hallidie, Henry Root, Asa E. Hoevy and William Eppelsheimer. The originator of the idea, however, was E. S. Gardiner, of Philadelphia, who suggested the plan some time prior to the actual building.

The cable served its useful purpose for eighteen years, when it was electrified by the motor car promoters; that is, electric conductor rails were strung in the cable conduit and the wire rope hauled out. The dynamo had been perfected and electricity was a commercial motive power; therefore, the electric street railway of 1888 was a success. Before that, attempts had been made to operate street cars by various kinds of magnetic engines. In 1835 Thomas Davenport, a blacksmith, built a railway in Springfield, Mass., over which he operated a car driven by an electric magnet motor, and twelve years later Prof. Moses Farmer brought out another electro-magnetic motor, but they never passed beyond the experimental stage.

The real beginning of the American electric street railway system was the Union Passenger Railway of Richmond, Va., equipped by Lieut. Sprague and opened for service on the first day of February, 1888. It was a "troller" line—"trolley" is the word in use now. City officials soon saw the danger of overhead wires in the crowded city, and their precautions led to the underground system, a system that is familiar to all.



PROPOSED NEW DOUBLE-DECKED "L" ROAD IN NEW YORK CITY.



A RELIC OF BYGONE DAYS IN CHICAGO

DRESSED DOG AS BABY.

How a Woman Outwitted Stony-Hearted Street Car Conductors.

This is a real true dog story

He is a pug and a great pet of his mistress, who is very fond of his fine pedigree. One day she discovered that Teddy could not see as well as usual. She felt as sad as if he were a brother or sister and a famous oculist was consulted, who told her to bring her pet dog to him.

They started, but a great obstacle presented itself. Conductor after conductor insisted that the dog should not ride on his car, says the Portland Oregonian; so that it was only after getting on and off about a dozen times that the doctor's office was reached.

Teddy was as quiet as he could be while having his eyes examined, and his mistress was told she must bring him every day for a month, and all would be done for him that was possible. So Teddy's mistress went to a neighbor who had a small baby and borrowed an outfit that was not too dainty. Teddy kept very quiet while being dressed in the long white dress, then a cloak and muslin cap, and over the face a long white veil.

Thus they started. Immediately upon entering a car, if it was filled, up would jump a man to give the woman carrying a little baby a good seat. Teddy never wagged his little curled-up tail once, neither did he bark.

Each day the trip was taken with the same result—a good seat and a very quiet baby.

One day the doctor's office was filled with people waiting their turn, when a woman turned politely to Teddy's mistress and said: "My turn comes next and I will wait for you on account of your baby. It is so very tiresome to wait with a baby."

The doctor opened his door at that moment and called them both in his private office. He said. "I will show you the very best patient I have," and took Teddy carefully in his arms. He threw back the white veil and disclosed the dog's little pug nose and a pert little face looking out cutely from under the frills of the cap.

Teddy can see pretty well out of one eye now. His mistress expected a huge bill for the expert's service, but instead she received a receipted bill from the good doctor with a note saying that, as Teddy was the first patient he had ever treated of royal dog blood, he esteemed it a great honor to have been the means of helping him.

TALKS ON ADVERTISING

Advertising, says Lily Herald Frost in the St. Louis Globe-Democrat, is the lance with which the modern crusader, known as the business agent, invades the world of commerce. And an extraordinarily effective weapon it is, as the breakfast food people and the patent medicine houses well know.

The man woh doesn't advertise is soon a derelict, as idle and useless as a painted ship upon a painted ocean. When the advertiser ceases his labor it is then that the receiver gets busy.

It is when advertising dominates literature that one feels like protesting. The commercial spirit rules the reading world and thrusts its volumes upon it with a wealth of encomiums and a persistency that usually win.

By such judicious exploitation books are sold by the thousands. Their names are seen everywhere, in shop windows, on billboards, placarded along with brands of cigars or some superior make of whisky. And they are accorded such high sounding phrases of merit, of cleverness, of dramatic possibilities, that, backed by the author's name and the illustrator's art, they present such visions of delight that ever curious mortals must buy them just to satisfy their curiosity.

On a New Footing.

Absalom Foote, an eccentric old gentleman who had grown tired of life in the city, decided to move to some smaller town, free from the road of traffic, the bustle and confusion of the thronging multitude, where he could end his days tranquilly, as became a man of his age. In casting about for a location, his eye chanced to light upon the advertisement in a village paper of one Thomas R. Foote, who wanted to dispose of his boot and shoe store at a bargain, having made up his mind to remove to the city.

"That's the very thing," he said. "Selling shoes is a nice, easy occupation. It will give me just enough to do to keep me from stagnating, and it won't wear me out with overwork. I'll investigate it. It's queer, though, that his name is Foote, my name is Foote, he wants to come to the city and I want to go to the country."

A visit to the little town decided him. He liked its appearance and location. He was pleased, moreover, with "Foote's Shoe Store" and bought it, good will and all, at a bargain.

"Well," said the other Mr. Foote, "you won't have to change the sign."

"No," he answered, slowly. "I'll just add a little to it."

The next day he added this, just below the sign: "This place has changed feet."

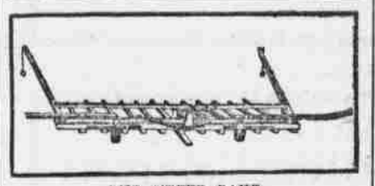
When a man moves into a western town, the thing that surprises him most is the great number of men who do nothing all day but stand on street corners and exchange fool opinions.

AGRICULTURAL

A Sweep Rake.

The two main pieces in the frame of the sweep are made of 2½ by 4 inch pine scantling; they are 12 feet long and about 20 inches apart. The teeth are made of 2 by 4 inch scantling, and are 9 feet long; they are beveled on the lower side to slide over uneven ground. The arms for hitching the whiffle trees to should project about 2 feet 6 inches over the end of the sweep; these are made of 2 by 5 inch stuff. The guide-arms should be 9 feet long by 2½ by 3 inches. Each has about a foot of chain with a ring on the end to fasten to the breast strap of the harness.

The hay guard can be made of 2 by 3 inch stuff; this is raised about a foot above the sweep to keep the hay from sliding back too far over the sweep. It should be braced about four feet from each end.



THE SWEEP RAKE.

The wheels are 18 inches in diameter; and a piece of inch gas pipe is used for an axle. It is clamped to the teeth, two pins with washers being used to keep the wheels from sliding sideways and rubbing against the teeth.

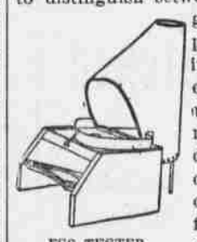
The piece projecting at the back under the sweep should extend about two feet; it is beveled like a sleigh runner; it is to keep the teeth from raising too high where riding on the empty sweep.

In hitching horses to a sweep that have never been used on one a person can get best results by tying the halter shank to the end of the guide-arms and making both lines the same length on the harness; then fasten one line to each ring of the bit. When it is desired to turn the horses to the right, simply hold the off horse back, and drive the nigh one ahead, and he will naturally swing around to the right.

In drawing a sweep load of hay on to the stacker draw it as far ahead as possible, then back the horses and raise ends of teeth, and drive ahead again; this will pack the hay on the stacker and less of it is apt to fall back on the ground when being raised to the stack. The most convenient size of stack to build is 16 feet wide by about 28 feet long.—Montreal Star.

Simple Egg Tester.

The average person evidently imagines that it is impossible for the dealer to distinguish between bad eggs and good eggs. This supposition is natural, inasmuch as so many eggs of questionable purity reach the dinner table. If the dealer desired he could readily discard eggs of doubtful age, as there are numerous devices for testing them. One of the most recent is shown in the accompanying illustration, patented by a Minnesota farmer.



EGG TESTER.

It consists of a wooden frame or casing across the top of which is a leather support for the eggs, the latter resting in flexible apertures. In the bottom of the casing is an inclined mirror. Mounted on the upper part of the frame is a light-reflecting hood in which is placed a lamp or other suitable illuminant. In operation eggs are placed over the aperture, and the light falling on the eggs will cast a shadow upon the mirror if they are unsound. The soundness of the eggs is indicated by the clearness of the light that falls through them upon the mirror.

Learn How to Sell.

Alone the farmer has no more chance with the market combine than a rabbit has with a hungry bulldog. Collectively he may hold his own and get a fair price for his produce. Figure a bit. Five cents a bushel added to the price of wheat means a gain of $1 to $1.50 per acre. One-half a cent per pound means a gain of $5 in every 1,000 pounds of beef or pork or mutton. Co-operation in selling will bring these advances and more. Twenty-five cents a bushel added to the sweet potato crop in four years has raised the growers of Tidewater County, Virginia, from poverty to respectable wealth. Southern cotton growers have made $3,000,000 a year clear profit above the average by sticking together. Organization is the "big stick" of commerce and it is time for farmers to learn to use it.

Sulphur for Rats.

It is said that if sulphur is sprinkled on the barn door and through the corn as gathered there will not be a rat or mouse to bother. A pound of sulphur will be sufficient to preserve a large barn of corn.

Eradicating Wild Mustard.

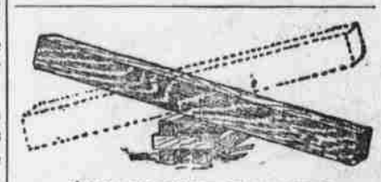
One of the most pestiferous weeds is the wild mustard, but recent experiments in Wisconsin seem to give promise that it may be quite easily and cheaply exterminated. It has been known for several years that spraying a field with blue vitriol would kill mustard without injuring the grain which is growing. But the attendant expense has been the chief objection to a wide use. The Wisconsin station has been making some tests with copperas, or iron sulphate, that indicate that it is quite as effective as the bluestone, and cheaper, as 60 cents will furnish enough to treat an acre. Similar successful experiments have been made with copperas by the Cornell station. Some three years ago the California station tried spraying with blue vitriol to hold in check mustard on its cereal plantings at Yuba City and came to the same conclusions as did the Wisconsin station. At Davis during the present season experiments in a limited way were tried with copperas, but owing to the lack of facilities for properly applying the compound results were not satisfactory. The work will be repeated another time with the most approved appliances.

Tomatoes from Italy.

Tomatoes are imported in increasing quantities each year from Italy. The quality of these tomatoes is stated to be good and the prices low. Large quantities of canned tomatoes are also shipped now each season from Italy to the eastern part of the United States, and the American shipments to Italy are much smaller than formerly. It is suggested by one of the leading importers in Liverpool that the American tomatoes are frequently packed before they are fully ripe, and that this practice renders them undesirable for use The Italian tomatoes are carefuly selected, and are only packed after they have attained a ripe and rich color.

Lifting Heavy Timbers.

When it becomes necessary for one man to handle a heavy weight, such as a log or barn timber which must be lifted, it can be done without a strain by making use of the trick shown in the sketch. Using small blocks, build a crib under the center of the log by lifting up one end, allowing the log



TRICK IN TIMBER HANDLING.

to balance near the center. When lifted as shown in dotted outline place another timber under the long end, and then repeat the operation.—Farm and Home.

Keep Digging in the Corn Field

Some ambitious farmers are anxious to lay by the corn field very early; but it is not wise, for the grass and weeds are always more forward to grow about this season than any other, and the ground will become very foul where the corn is too early laid by and, more than this, a great proportion of the nourishment of the crop is derived from the air and dew conveyed to the roots. This can be done only when the surface is free from weeds.

Invest in a Sprayer.

No farm work pays better than spraying the trees, berry bushes and grape vines. Attention to this matter at the proper time assures immunity from insect enemies and good crops of perfect fruit are the results. Don't spray fruit trees while the bloom is on, for that kills bees and bees are valuable assistants in pollenizing fruits. A spraying outfit for the farm need not be large and costly, and will have its own value the first year it is used.

Prevent Egg Eating by Hens.

In the main the egg-eating habit is caused by soft shelled eggs being laid. The hens get a taste of the egg and thus form the appetite. To prevent these bad eggs the fowls should be compelled to exercise and there should be such feed given that will supply plenty of lime, and in addition a small trough of cracked oyster shell should be constantly within reach of the fowls so they can help themselves at will.

The Garden in the Fall.

Just as soon as any crop of vegetables is finished in the garden spade the location, and if any seeds are in the soil many of them will sprout. If so, go over it again, which will save much time and labor in the spring. Late summer and fall is the proper time to clean a garden, especially if weed seeds are to be gotten rid of.

General Farm Notes.

Sour swill is not fit for hog feed.

The early fruit catches the big price.

It takes nerve to thin fruit, but it pays.

Too much corn will produce thumps in pigs.

Dry soil is one of the first requisites for sheep farming.

Select the pigs for breeding from the sow with the largest litter.