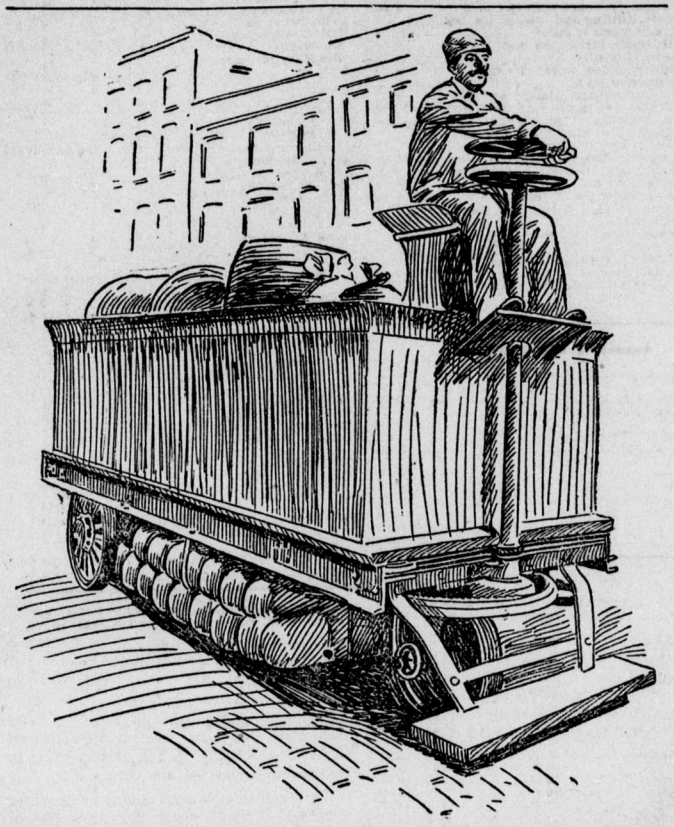
HORSELESS TRUCKS FOR NEW YORK'S STREETS.

Automobile Vehicles Under Construction Are Designed to Carry Eight Tons as Fast as Eight Miles an Hour.

Autotrucks for use by the New York Autotruck Company are now being constructed by the American Wheelock Engine Company, of Worcester, Mass., and will soon be seen in the streets of New York City. Platform trucks for carrying heavy machinery and trucks with high boxes for coal, ice or other commodities will be first used. Compressed air will furnish the motive power.

Motormen who operate these trucks will have a high seat forward, with a double wheel similar to the arrangement on a cable car for controlling the power. One wheel will be for steering purposes, and the other will open or close a valve between the air chambers and the motor. Although these trucks will have a carrying capacity of eight tons and can be run on smooth pavements as fast as eight miles an hour, it is asserted that they can be stopped in their own length. By shutting off the air the wheels are locked and the truck comes to a sudden standstill. The trucks are built with wide tires, so that asphalt or macadam roads will not be injured by them.

The truck shown in the above illustration is made for heavy hauling and has been successfully used by the manufacturers for their own deliveries for several weeks. It weighs 9000 pounds net, and its carrying capacity is about five tons. The propelling power is an eight-horse-power gasoline engine directly connected with a generator. The current from the generator is accumulated and governed by forty-four storage battery cells, which also adjust and reduce the tension of the motors. Its maximum speed is six miles an hour. A speedier truck can easily be made, but no higher rate of speed was deemed necessary for delivery purposes.



THE PASSING OF THE SHAKERS.

Sister Anana, oldest of the Shakers at Canterbury, N. H., died a few weeks ago. A city girl, who is familiar with the manner of life among these people, recalls some of the history of the Shakers, an anecdote of two of the life of the members of the Canterbury community, and a few of the customs which impressed her.

The Shakers are called so by outsiders in derision, because, in their own words, "In their religious meetings, in their meetings of soul against the powers of sin, they sometimes are led of the spirit of shake." In latter days, the Shaker dance, which is a combination of march step and rhythmical swaying of the entire body, has been done away with. Whether the Shakers themselves found the dance materialistic in tendency, despite religious ideas of its significance, or whether the persistent neighborhood ridicule of this form of expression by so rigid a people has effected the change, probably an outsider may not learn.

The real name of their organization is the United Society of Believers in Christ's Second Appearance.

From the point of view of the Shaker the world is divided into what they call the world's people and themselves. Of their tenets the public knows little. That they do not marry is as much as the worlding usually has time to learn of these interesting voluntary exiles from the common strife.

So far as a stranger can gather, were one for a time resident with them, the Shaker is a sort of Unitarian Christian with added broad tolerance for many Buddhistic teachings.

SHAKERESS SERENE IN HER OLD AGE.

The founder of the order, in 1770, was a woman, Ann Lee. Shakers believe that she was pre-eminent; not to say supreme, among human beings. Her Idea—they spell it with large type—was that God is dual, male and female, father and mother. That the Hindoos obtained a glimpse of this principle the Shakers admit. But in its application the Shakers, they believe, were the first to recognize it. Every community, or family, is governed by a council of four, two men and two women.

"Men among these people are of two types," says the city girl, "the

A TYPE OF THE YOUNGER SISTERS.

vigorous, spiritualized, self-controlled; and those weak, to the point of servile obedience to any stronger will. Average men are not found among Shakers. It is a matter of leading or being led.

"Women there impress you as intellectually stronger than women of the world. Their equality with men recognized in all daily life, it has the effect of centering their energies and expanding their self-esteem.

"The Shaker communities are recruited from outside. It has not been an uncommon instance where father and mother and children have united with these people, and all lived as brothers and sisters thereafter."

The Shakers do not marry at all, and never have married. For increase, they depend solely upon converts from among the world's people. These little Shaker communities, which have continued for more than 100 years, and which might seem to be the ideal life of the new woman, gradually are fading away. There are no known evidences that strong men and women are uniting with them to take the places of their dying leaders.

A prominent doctor holds that artificial teeth are an evil in those of advanced years, because they enable such persons to masticate flesh. When the teeth fail naturally, it is nature's design that the individual should subsist on vegetable diet.

FOR FARM AND GARDEN.

Pickle for Eggs.

It is said that the lime pickle used by dealers who lime eggs is made of a quart of salt, gallon of fine slaked lime and five gallons of water. Place the eggs on the broad end in layers. The top layer must be at least an inch under cover. Cover the barrel and keep in a cool place. More lime than above will cause the mass to harden.

Carbonic Acid Gas in Soils.

The air in all soils contains a much larger proportion of carbonic acid gas than does that in the atmosphere above. It is largest, of course, in soils that are full of vegetable matter whose decomposition liberates it. This gas has an important effect in keeping mineral fertility soluble. So far as soil is concerned it is the best solvent known. This is the reason why phosphate does so much more good on soils full of vegetable matter than on a sandy or gravelly soil that is nearly bare of vegetable matter.

Heat Food for Live Stock.

Now that winter is here again with its chilling blasts, every good farmer will know that it is high time to prepare a cooker of some sort for his stock-feeding in general. Past experience has taught me that it pays, and pays well, to warm everything that can be warmed during cold weather. It is one of the ways of making the farm pay expenses. You not only secure healthful and strongly constituted stock, but you save no small amount of feed by keeping up animal heat. We take it for granted that all the buildings have previously been made snug and warm. The hog responds to kind and careful treatment as much as the cow and a pailful of swill crackling with ice will have the same effect on them as a cold, icy meal does on a man, and warm, wholesome food will be appreciated accordingly, as they will attest by grunts of approval and satisfaction. But when you come to heat everything it is no small chore, especially if you are not prepared. I have a simple device that any one can construct. A good, stout post, in which two holes have been bored, is set firmly in the ground. The crane is made of an old wagon tire, and is five feet long, with a hook on one end, and an eye in the other, and has a hole drilled through about eighteen inches from the hook. An eyebolt is turned into the eye in the crane, and left long enough to reach through the lower hole in the post (which is two feet from the ground) and is threaded for a burr. This bolt is a 3-4-inch. An old chain is wired onto the crane through the drilled hole and passes up through the upper hole near the top of the post. A stout stick of wood with two strands of wire fastened to it in the centre is buried flatways in the ground back of and three feet from the post. These wires are made fast to the chain with a tension so that the crane is about horizontal. This forms a stay, or guywire. Now you hang your kettle on the hook, build your fire, and after the cooking or heating is done you simply swing the crane to one side or the other and prop it back, and you can take out the contents and refill away from the fire and smoke. This, placed in the shelter of some building or under a shed, can be used, for washing, butchering, or, in fact, anything, and is very handy.—W. Jay Beighle in New York Tribune.

Warm Poultry House.

A great deal of the success with poultry in the winter time depends on the way the houses are built for warmth, but when we speak of warm poultry houses we do not mean it in the same sense that we do in speaking of a dwelling house being warm. To have a poultry house warm enough so that water will not freeze in the coldest weather is a warm poultry house and is plenty warm enough. If the temperature does get down a few degrees lower than freezing point, but little damage can come from it, even if the fowls are of the large comb varieties, for they are not damaged much by this. Fowls can safely run out when the thermometer is ten degrees above zero and still be comfortable. Due consideration should be given to the fact that the fowl when on the roost is not active, and it will have to have a higher temperature when it is active and scratching around outside. Lower animals are not so susceptible to changes in temperature as man, for we know that turkeys, ducks and geese seem to enjoy running through the snow when the weather is quite cold, and one is liable to conclude they are comfortable in all kinds of weather. The discomfort that comes to hens roosting out of doors in cold weather is that their combs and wattles freeze, but beyond this they are quite comfortable.

The object of having a warm house is to stimulate the hen and induce her to lay eggs during the cold months. If they are constantly kept warm and well fed they will lay eggs, while if they are left out of doors in the cold, the food they consume is employed to keep them warm, and there is nothing left for the production of eggs. Bearing these facts in mind, it is not difficult to make a poultry house warm. A single thickness of lumber will do very well, and it can be made much warmer if it has a lining of tar paper. If the poultry house is large, the roosting quarters should be partitioned off so that they are just large enough to give roosting room, with ventilation, but be free from drafts. Then the heat of the fowls will assist in keeping the temperature up, while they are inactive and need it. In the day time they will walk around, and will exercise, and will then need more commodious quarters.

We have discovered that large glass windows allow the heat to escape, and to prevent this in the night, it will be well to have curtains to close on the inside. During the day the sun's rays will pass through and warm it up, but when the sun goes down the rays will pass out as readily as in unless they are stopped from doing so. The heat that came in during the day time will stay if a curtain is put up, for there is no radiation.

It pays to have good, warm poultry houses in winter, but in order to make them so it is not necessary to make them elaborate. Very warm poultry houses are made out of prairie hay or straw. These can be made very warm and inviting for poultry. Paint may not make them any warmer, but if the fancy calls for painted buildings we are agreed to it, as it makes them look tidy, and we like to see it. Paint, like charity, covers a multitude of defects.—Fruit Growth.

Planting Trees in Wet Ground.

It is useless to plant trees in ground which is not at least fairly well drained. When water cannot get away from land it is unfit for the growth of ordinary trees. There must be some flow to make it possible to have trees thrive therein. When there is some drainage, even though it be slow, trees can be planted to advantage if set on mounds; but this is only worth doing when no other place offers for the trees. The plan followed is to have a cart load or two of earth dumped where the trees are to be placed, enough so that when the tree is planted its roots will not be more than a few inches below the surface of the natural soil. In this way trees may be set, and they will flourish very well. The added soil affords them sustenance and the means to get a good foothold, and, as the roots push beyond this, they keep along not far under the surface of the natural soil out of the too wet portion of it. I have known trees to do very well in such places when treated in this way, especially the pear. In fact, for this tree, a damp situation is not a bad one. It generally means a stiff soil, which is what the tree likes. In low ground, capable of being drained by ditches, pear trees thrive amazingly.

Cherries, too, will thrive near water, at the base of hills, near running water, but not so well in heavy as in light ground. Rocky soil will grow good cherries, no matter how much water is passing through it. When water passes through the ground continually it carries air with it, and this is what roots demand, and when this cannot be supplied then trees will die. Whoever has a place he deems too wet for fruit or any other trees, let him follow the mounding plan, and without doubt he will be pleased with the results. A case is in my mind where one who had quite a piece of wet land which he wished planted to trees, and which it was his intention to drain in a few years, planted the trees in mounds, as explained above, and did not drain the grove for three years afterwards. The trees were practically set on the level ground, the mound being no more than the covering of the roots to the proper depth.

Until draining occurs the roots keep near the surface of the ground, but when the water is taken out of the ground by drains, down go the roots into deeper soil. Trees growing in wet places, such as along the banks of streams, are always surface rooting. I have seen large forest trees blown over near creeks, which showed a mass of fibrous roots, not much over a foot in depth. And this is why such trees do blow over so often, there being no descending roots to support them. There are some trees, such as the silver maple, which, though they make out surface roots in wet places, are very tenacious of their hold, and very rarely lose it and become prostrated. These general remarks, it is hoped, will benefit many who have such a piece of ground they contemplate planting.—Practical Farmer.

Poultry Notes.

Do not let ducks or geese roost in the poultry house or yard.

An ounce of prevention is worth a pound of physic in the poultry yard.

Clover hay, cut fine and steamed over night, makes a good food for laying hens.

Old hens rarely make good winter layers. Early hatched pullets keep up the cackle.

See that your house is kept clean this weather, as cleanliness is a good lice destroyer.

Lay up a supply of vegetables for the fowls. Turnips, beets, cabbage, all make a cold weather variety.

Always have a dry location for the poultry house; there is no animal life that can stand damp quarters.

Air-slaked lime and plaster are recommended and are good for destroying the odors of the poultry, but dry earth will accomplish the same result.

Plenty of shade and an abundance of good fresh water are necessary to the comfort of the chickens, and it is comfortable chickens that lay eggs or grow and fatten as the case may be.

A Novel Exhibition of Falconry.

At the Paris exposition in 1900 a novel exhibit wil be made of falconry, installed in the historical department of the section devoted to hunting. There will be shown all the implements used in the ancient sport, such as gloves, hoods, bags, uniforms, etc. There will also be noted pictures of hunting with falcons, such as Darnet's in the Orleans museum, representing Anne of Austria, surrounded by her court women, all with falcons on their wrists. There will be portraits of noted falconers, preserved in the collections of prominent families, and tapestries on hunting subjects.

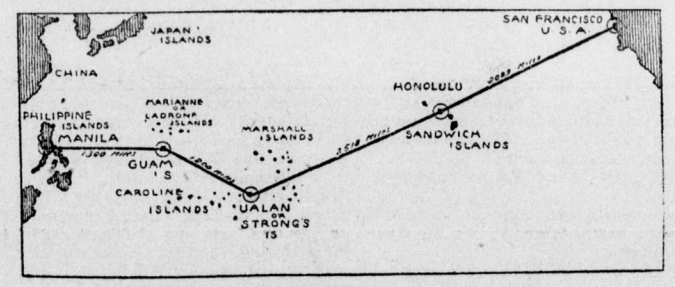
A TRANSPACIFIC OCEAN CABLE.

The great transpacific cable projected from the United States to the Philippines will be one of the most important media of communication between the civilized nations of the earth. The plans under consideration contemplate connection with Manila by the shortest possible route, and an examination of the accompanying map will clearly disclose this method. San Francisco is from Honolulu, in the Hawaiian Islands, a distance of 2089 miles. From Honolulu to Ualan is 2518 miles; from Ualan Island to Guam Island is a distance of 1200 miles, and from Guam to Manila a distance of 1300 miles for a cable, but about 1360 miles for a steamer. By using the island of Ualan, or Strong's Island, the cable will get a break in the great distance which it would otherwise have to traverse.

The Hydrographic Office of the Navy is only waiting for the word to begin a survey of the route. That portion of the path to be traversed which lies between the coast of California and the Hawaiian Islands was carefully mapped some years ago, but the remainder of the track, from Honolulu to Luzon, extends over a region of sea floor that is as yet unexplored.

The cable will go by way of Hawaii, of course, and thence to one of the islands of the Caroline group. A telegraph station, if nothing better, will be obtained by Uncle Sam in the latter archipelago. The distance from Honolulu to Ualan in the Carolines is 2518 miles. From Ualan the wire rope will extend 1200 miles to Guam, which becomes the property of the United States by the new treaty with Spain. It will cover its last stretch, 1300 miles, as a crow would fly from Guam to the Gulf of Dingala, which is on the east coast of Luzon. To reach Manila it would have to go around the Island of Luzon, and it will be a great saving of cable and of trouble also to make the landing on the east side, connecting with a telegraph crossing Luzon to Manila, only thirty-eight miles.

The distances are all official, as recorded at the Navy Department. If that from Honolulu to San Francisco, 2089 miles, be added, it will be seen that the total length of the cable will be 7107 miles. It is estimated that



ROUTE OF THE PROPOSED TRANSPACIFIC CABLE.

the making and laying of the wire rope will come to about $1000 a mile, so that the entire expense involved will be only $7,107,000. This includes everything except the preliminary survey, which, being performed by a naval vessel, will not appear as an item in the account.

This rope which is to wriggle its way beneath seven thousand miles of ocean, bringing two continents into close touch and communication, will be an inch and a quarter in diameter, and will weigh a ton and a quarter to the mile. The bill introduced in the House by Mr. Corlis, of Michigan, requires that the cable shall transmit at least fifteen words a minute, at not more than $1 a word, press matter to be at half rates.

At present a telegram sent from Manila to New York must go by way of Hong Kong, around Asia, across Europe, and under the Atlantic—13,600 miles under water and 700 miles over land. The cables being controlled by a monopoly, the price is about $3 per word. This monopoly will be smashed by the new transpacific line.

The cable stations at Ualan and Guam will require no elaborate plant. For such purpose it is necessary merely to build a little house and haul a bight of wire rope up on shore. Once established, it will be no great expense to maintain the cable across the Pacific. Breaks are rare, and usually near shore; the wire rope embedded in the ooze of the depths will last for centuries. When the line is completed it will be practicable to send a message around the world in three seconds. The plan contemplated is that when finished the cable shall be handed over to the Postoffice Department, to be operated as part of the postal service. All net proceeds will be covered into the Treasury, and in this way the cable will be made to pay for itself in course of time.

How to Be Cremated.

A Canadian lady, on being questioned concerning her views upon the subject of fire versus earth for the human body after death, gave utterance to a remarkable sentiment—she was rather absent-minded, be it said. "Well, you see, one only gets buried once in a lifetime! Cremated? Yes, I think I should prefer it, if there was only a creamery handy." Creamery, we may observe, is the equivalent in the Dominion for the English dairy.—Cornhill.

Under an Iowa law convicts who become insane during imprisonment are retained in prison indefinitely. Recently several of these prisoners, some of whom had been in prison fifteen years after the expiration of their sentences, were sent to a hospital for the insane.

A SOCIALISTIC MAYOR.

John C. Chase Will Attempt to Put His Theories Into Practice at Haverhill.

The Socialists have captured the city of Haverhill, Mass. They have elected a Socialist Mayor, John C. Chase, and six members of the municipal legislature. This is the first time, so far as is known, that out and out and avowed Socialism has won in an election of any importance in this country, and all Massachusetts is stirred up and talking about it.

Mr. Chase declares that he will carry out the policy of his party as defined in the platform on which he was elected. He is only twenty-eight years old, and at the time of his election was a clerk in a co-operative store of Haverhill. He is thoroughly imbued with the doctrines of Socialism, is the President of a Haverhill co-operative society and one of its founders, and has been very active in Socialist agitation for some time.

JOHN C. CHASE.

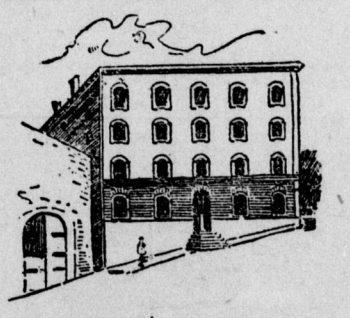
Not only did the Socialists elect their candidate for mayor, but likewise three aldermen and three councilmen. Their platform demands that the city shall own and operate all public utilities requiring a franchise, the operatives to elect their own officers; that the city shall furnish food, shoes and clothing to children who are compelled to stay from school for want of these necessaries; that the city shall give employment to the unemployed on new public works; that taxation shall be equalized; that secret sessions of the council be abolished; the adoption of initiative, referendum and proportional representation, and other plans generally approved by Socialists. Young Chase receives a salary of $2000 a year for trying to carry out this programme. If he can succeed in starting the ball rolling, the experiment will be watched with utmost concern by all kinds of people everywhere.

Mr. Chase has been connected with labor agitation and organization ever since he was a boy. He is an unusually bright and well-informed young man, and is looked up to by the workingmen in the town. The new mayor was born in New Hampshire, and went to Haverhill eighteen years ago. As a boy he worked in shoe factories and woolen mills, and spent his evenings in study.

Haverhill is one of the most industrious of the manufacturing towns of Massachusetts. It has a population upward of 40,000. It has about twenty miles of street railways, gas plants and electric lighting plants, about a dozen grammar schools, a public high school, a public library and four fine parks. In Haverhill are nearly 800 factories, covering nearly seventy industries and employing nearly 20,000 men. The principal industry is the manufacture of boots and shoes, in which are invested many millions of dollars.

Assassin Luccheni's Prison.

Luccheni, the murderer of the Empress of Austria, now under sentence of imprisonment for life—the utmost penalty allowed by the law of Switzerland—was removed on the day after the trial to the Prison de l'Eveche, so called from the fact that it was built on the site of the palace of the Bishop of Geneva. Here for the next six months Luccheni will undergo solitary confinement in an underground dungeon. Two days a week his food will consist only of bread and water. At the end of six months he will be treated like other criminals, though with more severity in the event of misbehavior, or other breaches of the prison regulations.



LUCCHENI'S PRISON.

The value of the total output of metals in the United States in 1898 was $752,927,047, an increase over 1897 of $55,069,723.