

## HORSELESS VEHICLES.

### WE ARE NEARING AN AGE OF MECHANICAL STEEDS.

#### France is Leading the Way--Horseless Vehicles in American Cities--Petroleum Wagons.

Carriages without horses have long been popular in France. Since 1892 they have been coming rapidly into favor through the invention of a petroleum motor. The recent race from Paris to Bordeaux, in which machines adapted by MM. Panhard and Levasor, of Paris, to carriages of two or four seats competed, has attracted the attention, not only of France, but of America. These carriages, made after traditional patterns, are driven by means of a motor, which is situated indifferently either at the back or in front. The driver sits with a lever ready to his hand, by means of which the machinery can be set in motion in a few minutes. Some experimenters have proved that two minutes will suffice for a start, and others agree upon five minutes as the time required.

Anyhow, it is a small affair, even if the horses have a sort of advantage here. But horses, at least, cannot go backward, except at great personal inconvenience, and after a vast amount of manipulation by the coachman. The petroleum carriage runs either way without protest. And in the matter of speed no mere horse can approach it. The average speed on good roads recommended by the manufacturers is something more than eleven miles an hour, and even greater claims are made for it. The petroleum in these engines is used as a fuel for the production of steam. They are as easily worked as a tricycle, probably easier. A novice, as many witness, is able, upon the first trial, to drive his carriage over two hundred miles in two days of ten hours apiece. Tourists have wandered over half a dozen departments in them, and the taste is spreading every day.

These vehicles, perfect as they appear to be, will have to give place to the later devices of electricians. So far those that have been constructed have proved too heavy and expensive to find general sale. The batteries alone cost about \$500. They have undoubted advantages. They are clean, noiseless and require no engineer or skilled operator, resembling in this respect the trolley and the cable car. But the excessive load of the batteries and the lack of facilities for recharging them will prohibit their use outside of large cities for some time to come. Supplies of petroleum and gasoline are to be obtained in any town. The petroleum vehicles are light, more convenient in running, and also require no engineer. For these reasons they must take the precedence for ordinary use until the ingenuity of the Yankee has overcome the obstacles that electricity presents. Take, for instance, the electric wagon of the Boston inventor. It is heroic in its proportions, resembling an English brake in general design, and is built to outlast the "wonderful one-hoss shay." It weighs 5,100 pounds, and is undoubtedly the heaviest motor wagon on the continent, rivaling in weight the steam omnibuses of Paris. The general design of the vehicle is well adapted to the purpose. The batteries contained in the body and under the front seat are extremely powerful, consisting of forty-four chloride cells, with a total capacity of two hundred ampere hours, and an average discharge rate of twenty-five amperes. The motor yields four horse power and three different speeds are obtained, the minimum being four and the maximum fourteen miles an hour. The owner has put this carriage through the paces in hill climbing and over heavy roads with most satisfactory results.

An electrical wagon in use in Philadelphia has run several hundred miles without an accident. As compared with petroleum vehicles it is rather ponderous, weighing 4,250 pounds. The batteries weigh 1,600 pounds and consist of sixty chloride accumulators, having a maximum capacity of thirteen horse power. From fifty to one hundred miles can be accomplished on one charge, according to grade and speed, and the maximum speed attainable is fifteen miles an hour. The motor, weighing 300 pounds, is of nominal three horse power electric launch type, capable of developing for a short time nine full horse power. Steering is accomplished by means of a wheel in front of the driver. The first electric wagon ever seen near New York has appeared in Brooklyn. It came from the west and is the invention of two residents of Kansas City. It weighs about 3,000 pounds and as at present constructed has but one seat. Eighteen hundred pounds of storage batteries of the chloride accumulator type furnish the power, which is communicated to the wheels by a rawhide friction pulley running on a steel flange attached to the inside of the rear wheels. When desired, an automatic lever detaches the power from the driving wheel without stopping the motion of the motor. On ordinary good roads a speed of fifteen or eighteen miles an hour can be obtained and for ascending hills a reserve of twelve horse power can be drawn upon. A run of fifty miles can be made with one charge of the batteries.

Lock Haven, Pa., is also a claimant for honors in this direction. This wagon is intended for hotel service. The seats run lengthwise, and under them are stored the batteries, eight cells in all, four on each side. Though so few in number, these cells

cient capacity to run the wagon fifteen days of nineteen hours each, recharging themselves from a generator of ten sixteen candle-power lights. The motor develops three horse power, geared to equal six. The vehicle weighs 1,600 pounds, and is said to carry 3,000 pounds. The rubber tires with which it is fitted increase the comforts of riding.

When the wagon stops or is running down hill the generator returns the used up current to the batteries, thus economizing power. It is claimed that on a good road a speed of twenty-five miles an hour can be reached, and the project is on foot to apply the invention to fire and police patrol wagons, hotel omnibuses and pleasure wagons.

A light and graceful buggy propelled by a gasoline motor has, for three months past been traversing the streets of Springfield and adjacent country.

## FRUIT AS FOOD.

### Good Ripe Fruits are Digestible and Nourishing.

Ever since it has been seen that fruit was good for food. Every generation since has indorsed her opinion, and now perhaps more than ever before the world is waking up to see how good a food it really is. Good ripe fruits contain a large amount of sugar in a very digestible form. This sugar forms a light nourishment, which, in conjunction with bread, rice, etc., form a food especially suitable for these warm colonies, and when eaten with milk or milk and eggs, the whole forms the most perfect and easily digestible food imaginable.

For stomachs capable of digesting fruit eaten with pastry forms a very perfect nourishment, but I prefer my cooked fruit covered with rice and milk or custard. I received a book lately written by a medical man advising people to live entirely on fruits and nuts. I am not prepared to go so far--by the way, he allowed some meat to be taken with it--for, although I look upon fruit as an excellent food, yet I look upon it more as a necessary adjunct than as a perfect food of itself. Why for ages have people eaten apple sauce with their roast goose and sucking pig? Simply because the acids and pectones in the fruit assist in digesting the fats so abundant in this kind of food. For the same reason at the end of a heavy dinner we eat our cooked fruits, and when we want their digestive action even more developed we take them after dinner in their natural, uncooked state as dessert.

In the past ages instinct has taught men to do this; to-day science tells them why they did it, and this same science tells us that fruit should be eaten as an aid to digestion of other foods much more than it is now. Cultivated fruits such as apples, pears, cherries, strawberries, grapes, etc., contain in analysis very similar proportions of the same ingredients, which are about eight per cent. of grape sugar, three per cent. of pectones, one per cent. of malic and other acids, and one per cent. of flesh-forming albuminoids, with over eighty per cent. of water. Digestion depends upon the action of pepsin in the stomach upon the food, which is greatly aided by the acids of the stomach. Fats are digested by these acids and the bile from the liver. Now, the acids and pectones in fruit peculiarly assist the acids of the stomach. Only lately even royalty has been taking lemon juice in tea instead of sugar, and lemon juice has been prescribed largely by physicians to help weak digestion, simply because these acids exist very abundantly in the lemon.

## Care in Buying Shoes.

"Great care should be taken in buying shoes," said a well known dealer to a Rochester Post-Express reporter. "Especially is this so in the cheaper grades. There is a large factory in Maine which turns out a compressed paste that is extensively used in the manufacture of shoes. Large quantities of them are shipped to other countries, but some are sold even in this city. Leather is high and it is not to be expected that the feet can be clothed at a slight expense. For this reason the compressed paste shoe has gained in favor. People, when buying it, think they are getting the leather shoe, whereas it is simply a bogus. This class of shoe wears very well if it is kept dry, but after a good soaking or twice wearing in the rain, it will tear and is of little use thereafter. It is always better to pay a little more and get a good article upon which you can depend for service."

## Some Small Kingdoms.

Monaco is probably the smallest kingdom in Europe. It has an area of only eight square miles and a permanent population of 18,000 people. It boasts a "sovereign prince" named Albert, but is more noted for the famous gambling den at Monte Carlo than for anything else. Liechtenstein, between the Tyrol and Switzerland, is another tiny European kingdom. Its area is sixty-one miles and its population about 10,000. The state owes a tremendous debt of £5,280, but could pay its debt off any time, as its revenue amounts to \$11,000 a year. San Marino is a tiny republic of thirty-three square miles--about a quarter the size of London--up in the hills near Rimini, on the east coast of Italy. The population is 8,000, and most of the men are dukes or generals in the army.

## LOST HIS NERVE.

### After This Affair Wild Jim Was a Changed Man.

A score of us saw the man as he came cantering into the frontier town on his cayuse, and more than one remarked how singular it was that he was unarmed. He hitched his horse to a post in front of the Big Elk saloon, and had just disappeared within the door of the shanty when a man came running up and exclaimed:

"Boys, that's the sheriff over at Deadwood, and he's come for Wild Jim!"

We crowded into the saloon to see what would happen. There were five men playing poker at one table and three at another. One of the men was Wild Jim, who was wanted for murder. On entering the place the sheriff had backed up against the bar and faced the players. Wild Jim had leaped to his feet and pulled a gun with either hand, and the other players leaped back and looked around to see what was going on.

"After me, Joe," queried Wild Jim as he stood with guns presented.

"Yes."

"Going to take me dead or alive?"

"Yes."

"You can't take me alive, and if you move a hand I'll drop you!"

The sheriff smiled and looked around the room and back at Wild Jim and queried:

"How does the game stand, Jim?"

"I've just dealt a hand."

"All right--finish it."

Wild Jim sat down and took five minutes to play out the hand. Then he looked up and said:

"Sure you want me, Joe?"

"Dog sure."

"Just come for me?"

"Just for you."

"Then I'm goin' to kill you where you stand!"

He raised the gun in his right hand and blazed away, firing six shots as fast as his finger could pull trigger. The sheriff never moved. When the smoke had rolled out of the open door and we could see him he stood in the same position and his face wore the same smile. One bullet had burned his cheek--a second had grazed his ear--a third had cut through his shirt collar under the left ear. Wild Jim was a dead shot, and yet he had missed his man at fifteen feet.

"Got through, Jim?" asked the sheriff, breaking a silence that was positively painful.

"And you--you are not healed?"

Gasped Jim as his arm sunk slowly down.

"No--come on!"

"You didn't bring your guns?"

"No. If you are through shooting we'll go!"

Jim laid his two guns down on the table before him and walked to the door and out into the street. His horse was tied to a post a block away. He reached the horse, mounted, and then headed down the long street after the sheriff, who was giving him not the slightest attention. In five minutes the pair were out of sight.

"What ailed Jim?" I asked of the barkeeper, who had come to the door of the saloon.

"Lost his nerve," he brusquely replied.

"How do you mean?"

"Why, the sheriff coming without a gun and standing there to be shot at took all his nerve away and made a woman of him."

"Suppose the sheriff had had a gun?"

The man jerked his head toward the field wherein fifteen or twenty victims had been buried and said:

"He'd a-bin over that!"

"And will Wild Jim get clear?"

"Likely, but he'll have to leave here. The boys have already put him down as N. G."

At his trial for murder in Deadwood Wild Jim was discharged from custody, but he went forth a changed man. No man took him by the hand--all men avoided him. Two weeks later he was found dead in Custer City--a victim of suicide.

## A Golden Shower.

The manufacturers of clocks have not been so busy at any time during several years past as they are at present; the factories devoted to the production of silver-plated ware are running full time, with large complements of operatives; the watch manufacturers have this year given their hands shorter vacations than usual, and are increasing their already large forces; the jewelry manufacturers of Providence, New York, Newark and other centers are running their factories to their utmost capacity; the importers of art goods, pottery and bric-a-brac are receiving immense shipments of goods; makers of cut glass are producing many new patterns and are working every frame in their plants. Thus the anticipation of a golden shower during the fall season, says the Jewellers' Circular, is evident throughout the manufacturing branches of our industry, and that the manufacturers will not be disappointed all signs indicate.

## A Curious New Industry.

A curious new industry is reported from Paris, where the demand for small dogs is being met by rearing pups on an alcoholic diet, which prevents their growth.

## AT THE PLAY.

She--They call this a play with a moral. I wonder what it is?  
He (thinking of the price for seats)--The fool and his money are soon parted. I guess--Indianaapolis Journal.

## FOR THE YOUNG FOLKS.

### TOMMY'S ALPHABET.

"Now this is A," mama would say; "And this is Q, and this is U, and this is I."

Now say them--try.

Oh! Tommy was a youngster yet To learn to say his alphabet.

But, bless his heart, though he was small, He knew his letters--nearly all.

So mother pointed, and her son Began to name them, one by one.

"This one?" "It's B." "And this?" "It's C."

"And this?" "It's L; I know it well."

"Nay, try again!"

"It must be N."

"And this one?"--pointing to an I--

Mama, the error to undo,

Now pointed to the letter U.

Small Tommy pondered; then quoth he,

His face aglow with smiles, "That's ME!"

—[Agnes Lee, in St. Nicholas.

## COLOR PROTECTS THEM.

More than twenty-five years ago Alfred Russell Wallace predicted that it would be found that brilliantly colored and conspicuous caterpillars were not among the favorite food of birds, although dull-looking caterpillars are devoured by them with great avidity. Various observations and experiments since then have tended to confirm Mr. Wallace's conclusion.

His idea was that the bright colors of certain caterpillars are the result of natural selection, the caterpillars that originally possessed such colors having also possessed some peculiarity, such as the secretion of acid juices, which rendered them distasteful to birds. As the conspicuously marked caterpillars were thus let alone by their enemies, they tended to increase at the expense of their less brilliantly colored relatives. Experiments have shown that birds actually do avoid the bright colored caterpillars as a rule. And this seems almost to have become a second nature, for a jackdaw, which had been raised in captivity, and had had no experience in judging the edible qualities of caterpillars, was observed to regard the brilliant caterpillar of the figure-eight moth with suspicion and aversion, although it eagerly devoured dull, plain caterpillars placed within its reach. When it was driven by hunger to attack the other, it finally refused to eat it, giving plain evidence that there was something distasteful about the prey.

## THE LITTLE HERO.

One beautiful spring morning a party of us girls and boys went out to pick berries. They grew by the side of a lake. We started at half-past 7 o'clock in the morning. We laughed, talked and gathered berries until 12 o'clock, when we all sat down to eat our lunch. There was one little girl in the crowd named Bessie Darling, who was very willful.

She had a friend just like herself named Lucy Hope. They kept going too near the water, although some of the girls were continually telling them not to go too near. Bessie and Lucy, hand in hand, were standing right on the edge of the lake eating their lunch, while the rest of the party sat further off. All at once we heard a loud splash. We looked and saw that Lucy and Bessie had both slipped and fallen into the water, and had gone under. The children all screamed, but, without a word, one little boy in the crowd named Ira Perliansky jumped up, ran to the edge of the lake and, without one moment's hesitation, jumped into the water. With little trouble, he caught Lucy just as she had started under the second time. He brought her out and laid her on the bank. He then went back after Bessie, who was much larger than Ira, and it was with much difficulty that he caught her just as she was going under for the third time and brought her to shore. When he reached the bank himself he fainted. Two of the boys ran home and told Ira's and Bessie's fathers, who immediately sent for a back, and went for the children, whom they carried home in the hack. Ira and Bessie both had a long spell of illness, and Lucy was quite sick. After Lucy and Bessie got well they were always wiser, if not better, girls. The hero of this story is a bright little boy, who formerly lived at Chicago, but now lives at Beaumont, Texas.

## THE WREN AND HIS HOME.

Quaint little birds the wrens, dressed in their brown feather jackets and flitting hither and thither in their brisk, busy way from twig to twig of the bushes, or searching beneath them for the worms and insects on which they delight to feed.

They are small birds, with long, slender legs, and their plumage is of a red, brown color, somewhat streaked or mottled with dark brown. The under part of the body is a light color, nearly approaching white, and on the tips of the wings there are small black-like spots of white.

Their wings are not long, and instead of flying continuously they flit and jump from place to place.

The song of the male bird is sweet and clear, but he is very pugnacious, and will defend his rights wherever occasion requires, even though he may be obliged to fight larger birds than himself.

The nests are made of hay or moss, lined with feathers and covered with a roof; the opening is at the side.

To prevent being discovered the birds select for the outside of the nest material resembling in color the object against which it is to be built, and always choose some spot where it will be sheltered from storms, such as under the eaves of a house, or beneath the projecting edge of a wall or bank. They will also gladly take possession of the little bird houses which may be prepared for them or others of the feathered tribe, and consider the quarters very luxurious.

One species, called the Winter Wren, is quite numerous, and may be found in the cold climate of Labrador, and thence to the far south. Another is called the House Wren, and loves to make its home near dwelling houses, and renders itself a truly welcome neighbor because of its sweet and cheery song.

When the winter is very severe, a number of wrens will force themselves into a company and take possession of a bird house, or some old nests, and there make themselves as comfortable as possible until the intense cold is gone.

There are several varieties of these little birds, besides those already mentioned, such as the common wren and marsh wren, and they are all very interesting little creatures, and as they sing their sweet songs in coldest winter

weather as well as through the summer, they have unlimited power of giving pleasure.

## Valuable Dog Collars.

"I can assure you that you have not been misinformed as to gold and precious gems being used to decorate dogs' collars," said one of the best known dealers in such articles, "but the craze is far more prevalent in France, Russia and England than it is here.

"Not many weeks ago I supplied to the special order of an English lady a dog collar that cost fifty guineas. It was a chain collar of silver and gold links alternately, and with a gold bell to hang in front. French ladies are very fond of watch dog collars, a small gold watch being let into the front of the collar, and I have made several of these. But in scores of cases I supply beautifully made collars with name plates of solid gold, and often enough with gold 'bosses' as well. Nearly all the collars of this class are intended for carriage dogs and drawing-room poodles alone.

"A fashion has lately had great vogue in France of putting tiny bracelets round the fore legs of poodles, and I have even seen diamonds let into these circles. At the same time, in my own stock, I have lots of dog collars ranging in price from \$15 to \$100. The most remarkable collar I have ever made was to the order of a gentleman from South Africa. It consisted of nuggets of gold and an uncut diamond, which he supplied, and it was given to a well-known lady as a present."

## How to Breathe.

An old gentleman gave good advice to a young lady who complained of sleeplessness. He said: "Learn how to breathe and darken your room completely, and you won't need any doctoring."

"Learn how to breathe! I thought that was one thing we learned before coming into a world so terribly full of other things to be learned," the insomniac said ruefully.

"On the contrary, not one in ten adults knows how to breathe. To breathe perfectly is to draw the breath in long, deep inhalations, slowly and regularly, so as to relieve the lower lungs of all noxious accumulations. Shallow breathing won't do this."

"I have overcome nausea, headache, sleeplessness, seasickness and even more serious threatenings by simply going through a breathing exercise--pumping from my lower lungs, as it were, all the malarial inhalations of the day by long, slow, ample breaths. Try it before going to bed, making sure of standing where you can inhale pure air, and then darken your sleeping room completely. We live too much in an electric glare by night. If you still suffer from sleeplessness after this experiment is fairly tried, I shall be surprised."

## A Bug Born of Fire.

There are some bad bugs and worms in the southern forests, but there are certainly none that are quite equal in endurance and toughness to the worm that developed himself from the great forest fires of the northwest. Scarcely had the fires cooled sufficiently for the owners to make inspection of losses when they found that this new worm had gotten there first and was already completing the destruction of what the flames had spared. Both standing and cut timber was attacked, and the most vigorous measures have been resorted to and have evolved partial success. This worm seems to have evolved from the heat, and so far, the cold and snows of the winter do not appear to have affected his health or lessened his voracity. He certainly is a new and unpleasant feature in the timber question, and a nut that scientists have not yet cracked.

## Simplicity of Clever Inventions.

The best way to become an author is to be born with a brain subject to flashes of inspiration that will supply you with first class plots. But if you want to be an inventor you should work from the opposite standpoint. Find a crying need and seek to think out a means by which it may be met. Here is the fashion in which one man did this: Walking through a greenhouse one day, he noticed that the gardener was obliged to go to a good deal of trouble to raise each ventilating window separately.

"Why could not some arrangement be devised," this observant individual said to himself, "by which all these windows could be opened by one movement?"

He thought over the problem and contrived a model, and the result was the apparatus now in use in all conservatories.

## Cats Living in Trees.

Two cases are reported--one recently and the other in the summer of 1881. The latter was in St. James' Park, London, when a stray cat made a nest in a tree some forty or fifty feet from the ground, and her kittens were seen to be dispersing themselves in the branches like so many squirrels.

## Useless Letters.

The French language contains 18 per cent. of useless letters. There are 6,800 journals published in this language, and they print 108,000,000,000 letters every year, so that 14,040,000,000 letters are printed, not because they are needed, but because they have come to be used in the French language as it is spoken.

## World Famed Dogs.

As regards the St. Bernard breed of dogs it has become extinct, and although the canines now employed are noble and sagacious animals, and are looked upon as descendants of the breed coming from the Pyrenees, they are at the most nothing more than Newfoundlanders crossed with the original stock. Barry, the most celebrated of them all, who is said to have rescued over seventy persons, has been dead for many years. With his death passed away the last of the thoroughbreds. Nevertheless the monks possess two sets of valuable dogs, the young of which are eagerly sought, bringing fabulous prices in the European markets. They are erroneously known as the rough and smooth coated St. Bernards.

The prevailing color of the smooth coated dogs is white, while that of the rough coated breed is yellow. No particular pains have been taken to keep the two breeds distinct, there has been considerable in and cross breeding, with the result that there is a third type which cannot be designated as belonging to either the smooth or rough coated class. This last stock is perhaps the best--being fully as large as the other two varieties--having as good a scent, and a coat of hair sufficiently thick to keep the animals warm without encumbering them upon the search.

To make the statement that there is no mountain route in Europe that has been used as much as the Great St. Bernard, that myriads have crossed the same, and that thousands have perished along the wayside, will not appear extravagant when it is recalled that the pass has a history going back more than 3000 years.

## Japan's Ex-Tycoon.

It may interest some people to know that the ex-Tycoon of Japan, the last of the Tokugawa dynasty--the last of the fierce Shoguns who ruled the country for so many years with mailed hands--is still living. His home is at Shimoda. He is now in the sixties, and he leads a sort of hermit life. I am informed that he receives very little company and is practically inaccessible to strangers. Formerly he visited Tokyo occasionally. No political disability rests upon him, as he voluntarily abdicated all power during the revolution of 1868. He takes no part in public affairs whatever. His chief pastime is hunting, though he is growing rather old for that.

This man is the son of that Tycoon who received and treated with Commodore Perry in 1854. He came to the throne a few years after that important event. What changes he has seen! What mighty results he has noted as a sequence of that simple introduction of Japan to the new world of the far West! Not long ago the ex-Tycoon, while hunting, accidentally shot and severely injured one of the poor farmers of his neighborhood. The affair worried him greatly, and he has of late shown a disposition to give up the chase altogether.

## A Golden Shower.

The manufacturers of clocks have not been so busy at any time during several years past as they are at present; the factories devoted to the production of silver-plated ware are running full time, with large complements of operatives; the watch manufacturers have this year given their hands shorter vacations than usual, and are increasing their already large forces; the jewelry manufacturers of Providence, New York, Newark and other centers are running their factories to their utmost capacity; the importers of art goods, pottery and bric-a-brac are receiving immense shipments of goods; makers of cut glass are producing many new patterns and are working every frame in their plants. Thus the anticipation of a golden shower during the fall season, says the Jewellers' Circular, is evident throughout the manufacturing branches of our industry, and that the manufacturers will not be disappointed all signs indicate.

## Scientific Kite Flying.

Kite flying, which used to be done for fun, has arisen to the dignity of a scientific experiment. Two sets of such experiments are in progress--one under the direction of the Weather Bureau at Washington, and the other at Blue Hill, near Boston, conducted by W. A. Eddy, of New Jersey. Not only do the experimenters send the kites up several thousand feet, but they send up cameras with them, and get pictures of the landscape from that altitude. The ostensible purpose of the scientific kite flying is to find out as much as possible about the atmosphere and its currents, barometric curves, temperature and other ingredients; but no doubt it is just as good fun to fly a scientific kite as any other sort, and no doubt the scientific grown-ups enjoy it.

## A Pin Machine.

Among the operative exhibits in Machinery Hall at the Cotton States and International Exposition is a pin machine. It is in two parts, the first of which makes pins and the second sticks them in paper. This will be done in full view of the visitors. A slender thread of brass wire is started in one end of the brass wire. It is cut, pointed and the head put on, and the completed pin is dropped into a bath which plates it with white metal. From this receptacle the pins are dropped into a sifter, which carries them rapidly to the sticking machine, where they are stuck in regular rows in the paper, and a complete paper of pins is turned out. The mechanism of the machinery is delicately elaborate, and one of the most interesting exhibits in the Machinery Hall.