

## AGRICULTURAL.

### One Water Trough for Several Fields.

Good, pure water is one of the essentials of health, and a thriving condition in farm stock. Often a pump, wind-mill, or the overflow from springs or running streams

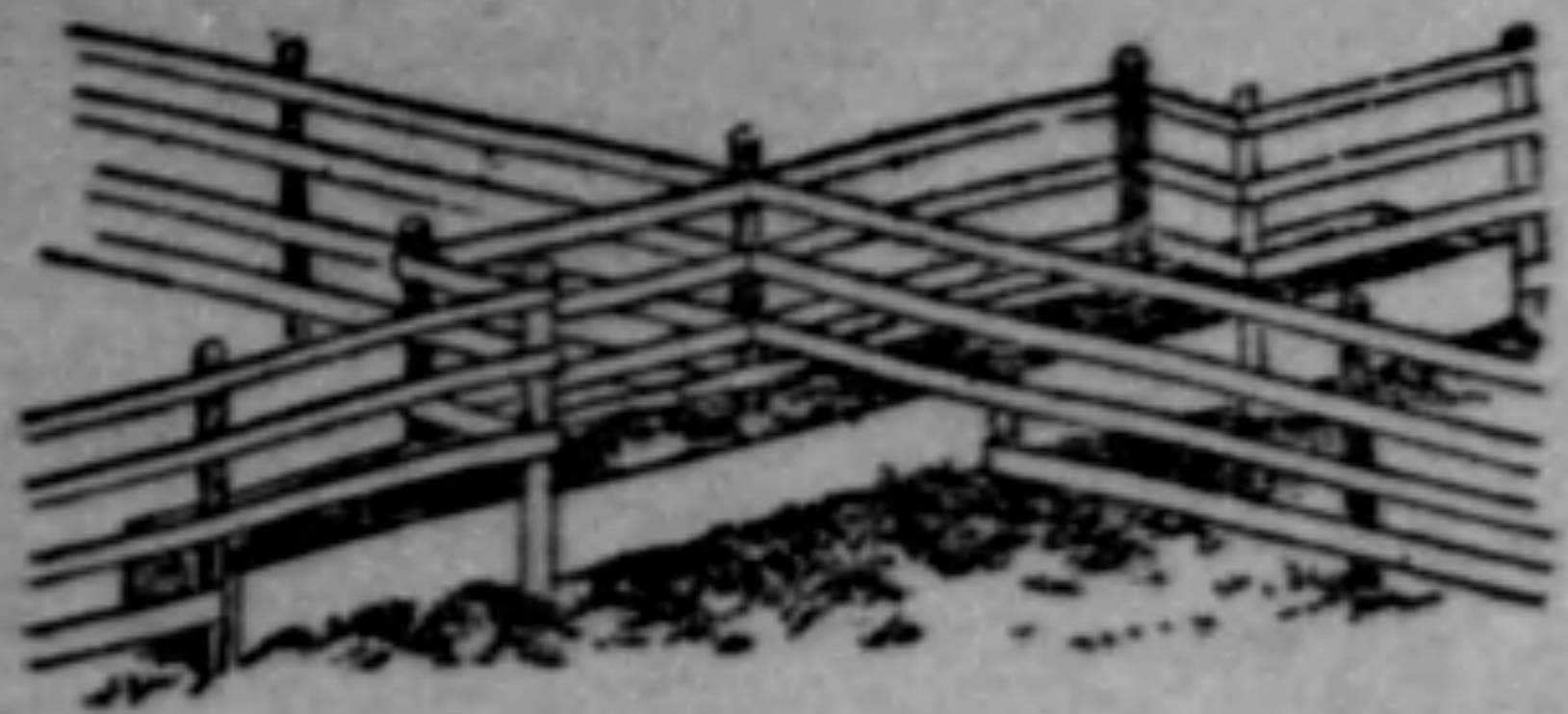


FIG. 1. WATERING TROUGH FOR FOUR FIELDS.

can be utilized and the accumulation stored or so distributed that stocks from four fields may drink the water from the same trough. This will prove a great saving in the construction and maintenance of several troughs, and as stock from one field can be watered just as readily as those pasturing in four, the advantage is quite apparent. The manner of arranging the fences for a sixteen-foot trough is shown in fig. 1, engraved from a sketch by L. D. Snook. If thought best one or two slats may extend across the trough where the fences cross it at the three points. In fig. 2 is shown the plan of utilizing a caldron kettle for the same purpose. If these are used only

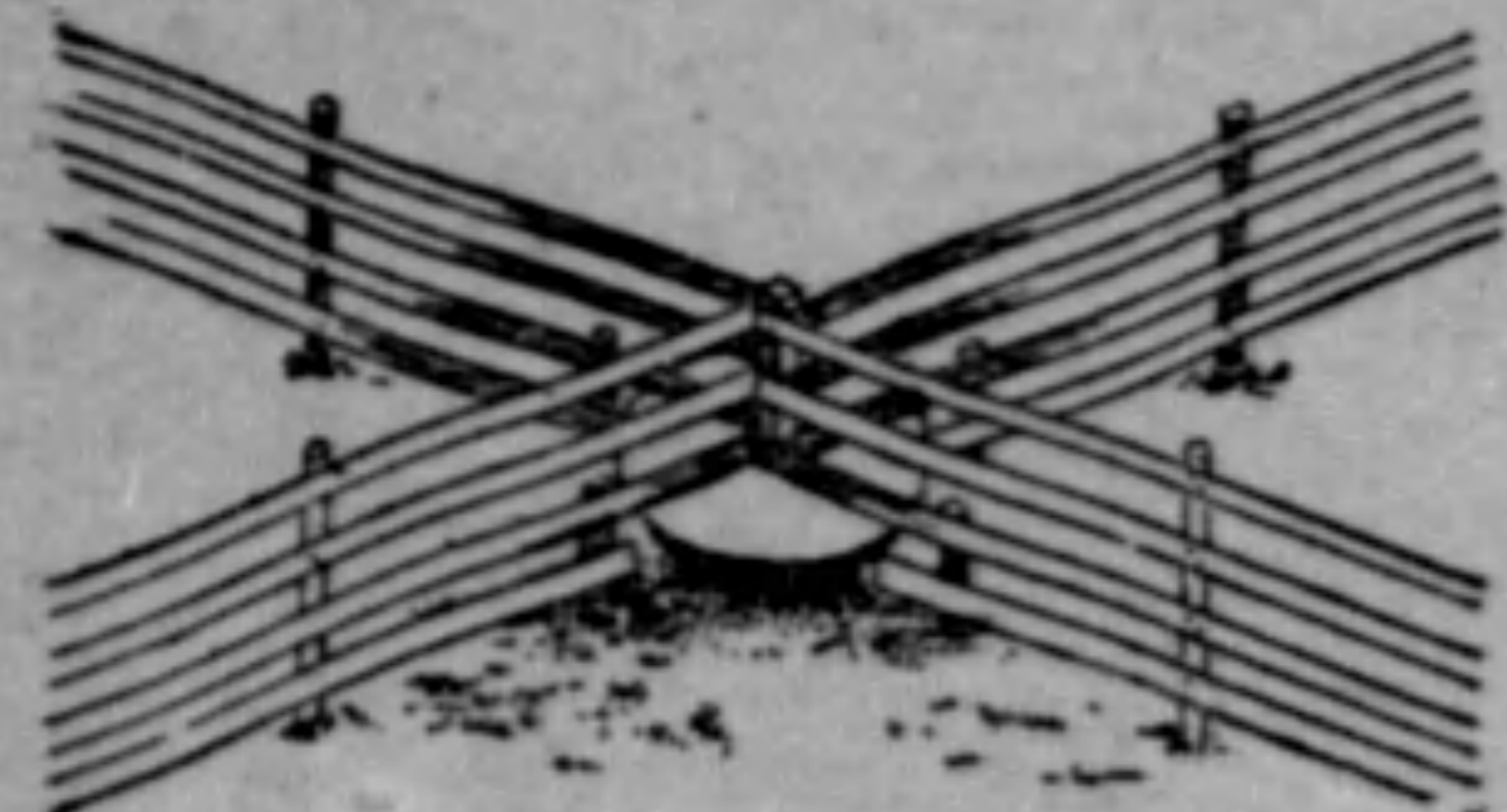


FIG. 2. CALDRON WATERING TROUGH.

during summer, they will be found very durable and will last many generations. If ice is allowed to form in the kettle, there is danger of breaking it. If possible, drill a hole in the bottom for rapid cleaning, leaving this open when not in use. If a large circular cover is adjusted, but little rain will enter if exposed during the winter season. Both of these are equally available for use under barn basements where stock is usually watered in several flocks, in fact the same trough is available for both localities as it is readily placed in position. This will be found more practical than watering stock from a pail, as many farmers have done for years. As to the manner of getting the water into the trough, many plans are feasible, adopting the one considered the most practical with the immediate surroundings.

### How to Make Gilt-Edged Butter.

Whether a large or small amount of milk or butter is sold from the farm in a year, one is seldom satisfied with the price that is paid for it. The limit usually runs from ten to twenty-five cents a pound, while the creameries are getting from twenty-two to forty cents for the same article, only better made and furnished in large lots of a uniform quality. Here is a heavy loss to the farm. While it is true that good tools alone will not make fine butter or rich milk, yet they are indispensable to encourage the average maker to produce a better article. Tools are so cheap, too, that there ought to be a higher standard in the dairy output of the farm.

In the first place, old dairy implements that have been used for years, especially if they have any wood about them, become so thoroughly soaked with old butter grease that it is impossible to make a fine article with them. The instant cream of fresh butter comes in contact with them, they take all the life and fine flavor out of the fresh article. For instance, a piece of board, as is often seen, that has been used in the dairy for many seasons to cover the pans of milk, will deaden the cream as fast as it rises on the surface of the milk, so that good butter cannot be made from it. An old churn that smells strong from age will rob the butter of half its value. Milk as it comes from the cow is rich in high flavors, but of an excruciating perishable nature. To hold these flavors, every thing with which it comes in contact must be as cool and clean and fresh as possible up to the time the bargain is struck with the merchant.

The first necessity is that the stables are clean, with no smell of rotting manure about them. Then use nicely scoured tin buckets to milk in. Hurry the milk out of the stable, or away from the cows, and set it immediately for creaming in cans or pans that are perfectly clean, and covered not with wood, but with sheet of scoured tin. The can that holds the cream must be scoured in hot water every time it is used, so that no particle of the old batch can get into the new. No churn should be used more than two seasons unless made of metal, or kept immaculately clean. In this respect the churn is the most dangerous of all the dairy utensils, and must be aired as much as possible up to the point of cracking it with too much drying out. Let the sun shine into it often. While no one should ever put the hands to butter, it must be manipulated. To do this, the best implements are two flat paddles, made of hard wood. The table on which the butter is worked is easily kept clean, and should also be made of hard wood. But the point of fatal error with many farmers' wives is that they will not pack and market the butter in the best shape to get good prices for it. The trouble usually comes from making the butter at odd times, and having no regular time, for taking it to town, instead of first determining on what days of the month shipments can be made, and then regulate everything to that end. Butter should always be delivered within two weeks of the time the milk came from the cow; oftener if possible. Cream can be held from four to six days, depending on how cold it is kept; and how sweet it was when taken from the milk. Never let it get too old, or all your hopes for good quality and high price will be crushed.

The farm output of butter will hardly be large enough to warrant using the ordinary butter tubs, and that is not the best shape to sell farm butter. By all means put it into one pound or two pound cakes, and press ridges across the top of each part with one paddle. Now for a bit of enterprise, cut some of the paraffin paper to wrap the

prints in, or use cheesecloth. Do not use old cloths, even though thoroughly clean. What you buy for this purpose will not cost a quarter of a cent to the pound of butter, while it will add several cents to the market value of each pound. A little neatness in this regard sharpens the appetite of the buyer.

### FACTS IN FEW WORDS.

More people speak the English language than any other by 35,000,000.

Walsingham, Eng., claims to be the healthiest place in the world.

China has an academy of manners that prescribes etiquette for the whole empire.

Christopher Grove, a 93-year-old resident of Bethany, Ind., is cutting a new set of teeth.

Horses are so plentiful in Chili and Buenos Ayres that it is not uncommon for beggars to ride.

A ton of steel is worth more than its weight in gold when made into hair springs for watches.

There is talk of running trolley observation cars across Niagara Falls, suspended fifty feet above the water.

Of the twenty-six barons who signed the Magna Charta three wrote their names and twenty-three made their marks.

The Mohawk Indians will not allow so much as a blade of grass to grow upon the graves of their companions.

An alloy that adheres so firmly to glass that it may be used to solder pieces together is made by a French chemist.

The flute took its name from the fluta, an eel caught in Italian waters which has seven spots like finger holes on its sides.

The Japanese method of lacquering is said to be at least 2,000 years old. Pieces made ten centuries ago are still exhibited.

The Roman father had unlimited power over his children, and could put them in chains, sell them into slavery or kill them at will.

The ticker telegraph is being introduced into many big apartment and flat houses in London by the owners for the benefit of the tenants.

The eight flowers most prized by the Japanese are the morning glory, apricot, cherry, wistaria, peony, iris, lotus and chrysanthemum.

It is said of the fur seal of Alaska that there is no known animal on land or water which can take higher physical rank or which exhibits a higher order of instinct.

A horse 36 years of age, with a remarkable fondness for whiskey, died recently at Reading, Pa. The animal frequently drank a pint of liquor in a pail of water.

Considerable excitement has arisen over the report that a life of Christ has been found in Tibet in the Lamaseri of Hemis. The story of its discovery is sufficiently circumstantial to suggest a serious attempt to obtain possession of the manuscript for the British Museum.

Miss Kate Hilliard, in a paper read to the New York Theosophists, speaking of hypnotism, says that no one while under its influence has ever been induced to surrender a vital secret. Many experiments have been tried with this intent, but without success.

One of the most curious occupations in the world is pursued in London. A woman will, for half a crown a pair, take new shoes and wear them long enough to take off the tight stiffness that new shoes are apt to have.

At a smoking contest in Berlin, a short time ago, Herr Knoff, by smoking continuously for two hours ten cigars, his nearest competitor getting away with but seven and a half, was declared the winner.

### PROGRESS OF STEAM NAVIGATION.

1788. First steamboat experiments by Miller on Dalswinton Loch.

1802. The Charlotte Dundas, by Symington, on Forth and Clyde Canal.

1812. The Comet of Henry Bell, launched with steam up, and made first trip from Port Glasgow to Helensburgh. Built by John Wood, Port-Glasgow; 42 ft. by 11 ft.; 5 ft. 6 in. depth. Engine by John Robertson, Glasgow; 3 H. P. condensing; cylinder, 11 in. dia.; 16 in. stroke. Boiler made by David Napier.

1813. The Elizabeth, 33 tons; 51 ft. by 12 ft.; depth, 5 ft.; 10 H. P. The Clyde, 69 tons; 76 ft. by 14 ft.; depth, 7 1/2 ft.; 14 H. P. The Glasgow, 74 tons; 72 ft. by 15 ft.; 16 H. P.

1814. The Industry, 69 tons; 68 ft. by 17 ft.; depth, 8 ft. Also the Trusty, Princess Charlotte, Prince of Orange, Margery and Argyle.

1815. Other six built.

1816. The Comet appeared in the river Thames from Glasgow.

1819. The Savannah crossed Atlantic in 32 days (18 days under steam).

1825. The Enterprise steamed from England to India, and earned the £10,000 prize.

1838. The Sirius, Cork to New York, 18 days, entirely steam.

1840. The Britannia, 1,154 tons; speed, 8 1/2 knots; 115 passengers; 207 ft. by 34 ft.; depth, 22 1/2 ft.; 710 H. P.

Quite a host of steamers now sprang up, and continued so for many years, ever increasing in size and speed, and culminating.

1838. The Great Eastern of 18,900 tons; 679 1/2 ft. by 82 ft.; 7,650 H. P.; when a reduction in size took place, but an increase in horse power and speed.

1881. City of Rome, 8,000 tons; 545 ft. by 82 ft.; 11,890 H. P.

1889. City of New York, 10,500 tons; 560 ft. by 63 ft.; 18,500 H. P.

1893. Campania, 12,950 tons; 620 ft. by 65 ft.; 30,000 H. P.; speed, 21 knots; accommodation, 1,400 passengers.

The comparison between the Britannia and Campania is most instructive.

### Off His Feet.

"And did the West impress you favorably?" they asked.

"Carried me by storm," answered the return traveler, who, on one occasion had been wafted across three counties by a cyclone.

## ACROSS THE UNKNOWN.

### LABRADOR AT LAST TRAVERSED FROM SOUTH TO NORTH.

Success of the Canadian Expedition Headed by A. P. Low—The Interior of the Peninsula Well Wooded—A Number of Interesting Discoveries—Plans of the Party.

Information has been received of the movements and discoveries of the Canadian Government surveying party that left in June to explore the hitherto unknown interior of the great Labrador peninsula. The expedition is headed by A. P. Low, the Canadian explorer who four years ago succeeded in surveying Lake Mistassini, the fabled inland sea of the Montagnais Indians. The white men of Mr. Low's present party were the first to cross the Labrador peninsula from the south to its extreme north. Others had previously found their way from Quebec to James' Bay by the trail that Mr. Low followed when he visited Mistassini. But the expedition that left Quebec and Lake St. John early last June traversed the entire peninsula to Ungava Bay, nearly three times as far as the distance from Quebec to either James' Bay or Lake Mistassini.

The expedition reached Ungava on Aug. 27, after a summer of very hard and very dangerous work, owing to the difficulty of obtaining guides and the wild and rapid character of the rivers. From Lake Mistassini the party went north to the East Main River, which they ascended to its head waters in the interior of the peninsula, and crossing the height of land and a large number of lakes, they came to the head waters of one of the tributaries of the Koksoak or Caniapusaw, a river nearly as long as the St. Lawrence, which they descended to Ungava Bay, immediately south of Hudson Strait, a point never before reached by white men from the south, overland, but always by the Hudson Bay Company's steamer.

Here is Fort Chimo, the most northerly of the Hudson Bay Company's forts, and here it had been understood the expedition was to winter. But famine had visited Ungava prior to the party's arrival, and it was necessary to move further on. They had ample verification of the report that reached Quebec some time ago to the effect that numbers of the Indians thereabouts had lately died of starvation. Mr. Low writes that between '00 and '00 died

### FOR WANT OF FOOD

during the winter of 1892-93, and the remainder were in such a state of abject poverty that he feared to trust the provisions of his party in that part of the country, and so shipped them by the Hudson Bay Company's steamer to Hamilton Inlet. The chief cause of the shortage of provisions at Ungava was an unprecedented absence of reindeer during the autumn of 1892. Usually they cross the Koksoak River during October in droves of several thousands, and the Indians and Hudson Bay Company's officials at Fort Chimo kill them by the hundred and freeze their flesh for winter use. Three men in canoes with axes have killed 300 of the animals in one afternoon.

Mr. Mackenzie, formerly chief officer at Ungava, went out with rifle and fifty cartridges one day and came back with forty-two deer. The Eskimos seen by Mr. Low at Ungava are a much larger and finer race of men than those of the easterly coast of Labrador. But, like the Indians of these parts, scarcely any of them are Christianized, and all are exceedingly superstitious. They have great faith in conjurers, or medicine men, who succeed most wonderfully in imposing upon the credulity of their dupes. These Indians never bury their dead, but expose their bodies upon some hillock, and sometimes build over them a small mound of stones. They deposit the rifle and canoe of the deceased person near his body, to be in readiness for his use in the happy hunting grounds to which he has gone. In case of a bad season, and a consequent shortage of game in his new abode, they occasionally leave him a supply of provisions. They form their opinion as to whether or not the deceased person requires them when they find whether they have been removed.

Apart from the knowledge acquired of these northern people, Mr. Low made some important discoveries in his trip across Labrador, including the immense outcrops of the rocks of the Cambrian epoch of the lower Silurian age along the Koksoak River, which are essentially an iron-bearing series. Almost every bed of them holds that metal, and some of them are

### PURE HERMETIC ORE.

Mr. Low reports that these ore resemble the rocks along the east coast of Hudson Bay, and he believes that they cover a great area of country about and to the westward of Ungava Bay.

The expedition also found evidence that the continental ice cap took its rise in the interior of Labrador and flowed outward from a gathering ground in the neighborhood of the headwaters of the East Main River; and, most important of all, it was discovered that the interior of Labrador is everywhere well wooded, so that the old opinion that it was a treeless wilderness no longer holds. Spruce trees, however, do not as a rule average more than eight inches in diameter.

The expedition wintered at Rigolet, the Hudson Bay post on Hamilton Inlet, on the east coast of Labrador. Mr. Low writes that he was to start early this month to ascend the Hamilton River which takes its rise in the interior of Labrador, and to make the attempt to cross the entire peninsula from east to west at Hudson Bay. He appears to have grave doubts of being able to make the entire journey, however, owing to the impossibility of obtaining guides who know the wide area of country to be crossed between the head of Hamilton Inlet and of the Big River. The latter is the river by which Mr. Low hopes to reach Hudson Bay, but nothing whatever is known of its upper waters, and the best maps show nothing but its lower portion.

If he fails in his endeavor to cross Labrador he will press south from the head of Hamilton Inlet until he crosses the height of land north of the province of Quebec, and so descends to the Gulf of St. Lawrence by one of the large rivers flowing into it. In his ascent of the Grand River Mr. Low will undoubtedly reach the Grand Falls of that river, which have been visited and described quite recently by Mr. Bryant of Philadelphia and also by a part of the Bowdoin College expedition.

### IN NEW ZEALAND.

Some of the paternal measures passed by the New Zealand Legislature.

Though many of the laws which have been placed upon the statute books of New Zealand during the last few years have been characterized as "Socialistic" and "Revolutionary" they are all working admirably, giving the utmost general satisfaction. The tendency of the legislation has been to reach the landless class, and to teach them their rights and how to obtain them. There has been no attempt to tear down established interests, but at the same time no effort has been spared to elevate the condition of the masses by placing within their reach all that rightfully belongs to them or that would tend to their elevation and material prosperity. In the short space of three or four years the country has made wonderful progress. Among the Acts which have been passed to bring this about is the Employers' Liability Act affording complete protection to labor, both as to wages and responsibility in case of injury. A much needed and beneficial Act was the Factories Act of 1891. Government inspectors see that the factories are clean and healthy and well lighted. No person under eighteen years of age and no woman is allowed to be employed for more than four and one-half hours without an interval of half an hour for a meal. No boy under sixteen years is permitted to work more than forty-eight hours in any week in a factory and child labor is prohibited entirely. When a railway or highway is to be constructed, the Government engineers make the survey and estimate. On the basis of this estimate of cost the work is given in small sections to gangs of men, who each receive an equal proportion of the money earned. The contractor is dispensed with, and the profits are divided among the men. The Government supply the necessary tools and material at first cost. The men work very hard and earn good wages. They pocket the contractors' profit and the Government is at no greater cost. One particular feature of this system is that the young, robust, and middle-aged men work together, while the weaker and less vigorous are formed into classes by themselves. The younger and stronger men object to their older and necessarily weaker brothers, because they are no longer able to perform their full share of the work. The old men are, however, perfectly content to have the opportunity to earn a livelihood in this way by themselves, and they do so very comfortably. The co-operative system has given great satisfaction, and has to a large extent solved the problem of the unemployed in this colony. Another excellent system is the Government Labor Bureau. If a man is out of employment, he makes application to the agent in charge of his district labor bureau, who sends him to some suitable occupation, paying for his transportation, if necessary, and having it refunded from the first money the man obtains. Employers of labor can send orders for men, and in this way the labor market is always open. Among the vast majority of the public there are no complaints, generally speaking and no fault finding. All seem to appreciate what is being done for them, each working with a cheerful will to make all those new undertakings and innovations a success.

### Rules for Life.

Make few promises. Always speak the truth. Never speak evil of any one. Keep good company or none. Live up to your engagements. Be just before you are generous. Never play at any game of chance. Drink no kind of intoxicating liquors. Good character is above all things else. Keep your own secrets if you have any. Never borrow if you possibly can help it. Keep yourself innocent if you would be happy. Make no haste to be rich if you would prosper. When you speak to a person look him in the face. Do not marry until you are able to support a wife. Ever live (misfortune excepted) within your income. Save when you are young, to spend when you are old. Avoid temptation, through fear you may not withstand it. Never run into debt unless you see a way out again. Small and steady gains bring competency with a tranquil mind. Good company and good conversation are the sinews of virtue. Your character cannot be essentially injured except by your own acts. If any one speaks evil of you, let your life be so that none will believe him. When you retire to bed, think over what you have been doing during the day. Never idle; if your hands can't be employed usefully, attend to the cultivation of your mind.

### Preaching Under Difficulties.

The Archdeacon of Victoria, in Mashonaland, a country of South Africa of which we are beginning to hear a great deal, was preaching one Sunday, when a baboon appeared at one of the windows and made faces at the clergyman. No notice whatever being taken of him, he jumped into the church, climbed the pulpit, and perched himself upon the Archdeacon's shoulders, which he affectionately embraced. Releasing himself of his burden as best he could, the minister went on with his sermon, but the monkey, ascended to the rafters, also commenced a discourse to the people, which ceased only with his capture. This impudent prank—so monkeylike, withal—is said to have shocked the Archdeacon and scandalized the congregation, from which one might infer that some wicked person had put the baboon up to it.

### The Coldest Spot.

The coldest place in the world is the region about the mouth of the McKenzie river in British North America. The thermometer there has been known to sink to 70 degrees below zero.

## BURIAL RITES IN CHINA.

### A QUEER PAPER CREMATION AT THE TOMB.

Only the Finest Coffin Will do, and the Ceremony is Elaborate and Prescribed by a Written Code.—A Dinner of Chinese Affluence.

Funerals in China are very elaborate, and whenever possible most magnificent. Hairs, and they are all conducted according to a ceremonial as arbitrary in its details as the Episcopal marriage service. These details are prescribed by the "Leke" or Book of Rites, which every good Chinaman knows by heart, and to disobey its least rule is a crime severely punished.

A splendid coffin for the dead is the first requirement, and the poor Chinaman will deny himself, sometimes half starve himself, and his family, in order that his daily board may become sufficient to buy a casket fine enough for so important a ceremony. The coffin occupies the place of honor in the house.

Death by no means implies immediate burial. According to the Pall Mall Budget, when a Chinaman dies his neighbors come in and make the shroud. The body is put in its coffin. Then the funeral ceremonies begin, if there is money enough. If not, the coffin is put back in its place of honor until the family finances look up.

The day of the death, or the day thereafter, the relatives not living in the house, and the friends, come to pay the last duties of respect to the deceased. When the visitors arrive they are shown into a room in which are all the women and children of the establishment. These latter set up a dismal howl, in which the visitors join, or to which they listen sympathetically.

When the tympanum of even a Chinese ear begins to ache the guests are ushered into another apartment, where the men of the house give them tea and refreshment. The refreshment varies according to the means of the family; in the house of the rich it is a dinner. After the visitors have drunk and eaten they are bowed out by one of the kinsmen of the dead.

The dinner of Chinese affluence, wherever served, consists of five courses: 1. A very rich, thick soup. 2. Salad and meat. 3. Birds' nests, sharks' fins and other very nourishing dishes. 4. Stews. 5. Fruits and sweets.

A well-conducted Chinese funeral is the most gorgeous sight in Asia. At the front of the funeral procession walk the noisy musicless musicians. Then come men (they may be friends, they may be coolies) bearing the insignia of the dignity of the dead, if he had any. Next walk more men, carrying figures of animals, idols, umbrellas, and blue and white streamers. After them come men carrying pans of perfume.

Just before the coffin walk bonzes, Chinese priests. Over the coffin a canopy is usually carried. The casket is borne by about a score of men. Immediately behind the coffin walk the children of the deceased. The eldest son comes first. He is dressed in canvas, and leans heavily upon a stout stick. He is supposed to be too exhausted by grief and fasting to walk without the aid of this staff. The other children and relatives follow this chief mourner.

They are clothed in white linen garments. The women are carried in chairs. They sob and wail at intervals and in unison.

When the burying-place is reached the bonzes begin chanting a mass for the dead, and the coffin is put into the tomb. A large oblong white marble table is placed before the tomb. On the middle of it is set a censer and two vases and two candlesticks, all of an exquisite workmanship as possible. Then they have a paper cremation! Paper figures of men, horses, garments and a score of other things are burned. They are supposed to undergo a material resurrection, and to be useful to the dead in the Chinese heaven, the tomb is sealed up or closed, and an entertainment concludes the ceremony at the grave.

The forms of the Chinese tombs vary somewhat. With the very poor the coffin is placed on the ground, earth and lime are packed about it, and a rude grave is formed. With the rich a vault is built in the form of a horseshoe. If the dead was of note or position the decorations of the grave and of the coffin are very elaborate.

### EUROPEAN ECHOES.

Over 80 per cent. of the shipping of the world is built in the British Isles, and nearly one-half of this is on the Clyde.

Between Paris and Berlin mail matter is now transmitted in thirty-five minutes by the pneumatic process, which is found most advantageous.

The Imperial Ottoman Government has sent three young Turkish women to France to study medicine. One of them has been sent to Montpellier, another to Nancy, and the third to Lille.

The winner of the prize for the best specimen of microscopic handwriting, offered in Paris recently, submitted a postal card containing on one side the contents of the first two pages of a big newspaper.

Advertising began in England over two hundred and fifty years ago. It is said that the first advertiser gave notice of the loss of his horse, and offered a reward for its return, and that the advertisement was successful.

Field Marshal von Blumenthal, the only surviving German marshal of the Franco-Prussian war, says he believes that war about every thirty years, for some unfathomable reason, seems to be indispensable to re-establish the equilibrium necessary to the progress and development of society.

The Duke of Teck and the Baroness Burdett-Coutts have been presented in London to Mr. James Corbett, the gentleman who pounded the faces of Mr. J. L. Sullivan and Mr. Charles Mitchell in the Southern prize rings. Thus doth the aristocracy of rank and the aristocracy of philanthropy pay tribute to the aristocracy of muscle.

Queen Victoria's descendants either occupy now or in the natural course of events bid fair to sit upon seven thrones, those of the British Empire, the German Empire, the Russian Empire, the Kingdom of Greece, the Grand Duchy of Hesse, the Duchy of Saxe-Coburg and Gotha, and the Duchy of Saxe-Meiningen.