



# FARM AND GARDEN

**SCIENTIFIC FEEDING OF ANIMALS.**  
It is much the fashion now to feed animals on all that is known as a scientific ration, and all the science about it is that the foods are compounded of various elements. The excellence of this method is that one of these helps to digest the others, and thus the whole food is more nutritious and healthful. It is the same in our own eating. A variety of food is not only agreeable, but more digestible and useful. This is understood by the professors of dietetics, who vary the food as much as possible, making up a ration that is more nutritious and effective than any single article of it.—New York Tribune.

**THE CUD OF A COW.**  
Rumination is a part of the digestive process, and in it the cow brings up from the first stomach, or rumen, a quid or cud of the food. This may be seen to pass up the gullet when the cow is in the act of ruminating. A cow cannot "lose her cud." This term is commonly used to signify that the function is suspended from some disturbance of the digestive process, and the remedy for trouble is simply to restore the action by giving a dose of one pint or a quart of raw linseed oil, or at much melted lard, by which the stomach is relieved of its load of undigested food. A cud cannot be given to a cow; it is a natural part of the digestion of the food, and not a thing like a chew, or quid, or cud of tobacco, which a man may take.—New York Times.

**HOG CHOLERA AND INOCULATION.**  
Farmers' Bulletin No. 8, of the United States Department of Agriculture, prepared by Dr. D. E. Salmon, Chief of the Bureau of Animal Industry, consists of a review of several attempts made in recent years for the protection of swine against hog cholera by inoculation. It presents a large amount of evidence gathered from those who have tried it, giving the results of their experience, as well as a full report of the inoculation experiments conducted in La Salle County, Illinois, last year under the supervision of a committee of farmers. Dr. Salmon's conclusions, based upon the evidence which he presents in this bulletin upon the results of the investigations made by the bureau on the subject, is that inoculation as a preventive against hog cholera is a failure from whatever point of view it is regarded, and the farmers are warned against the use of that method, which he shows to have been in many cases more fatal than the disease it is intended to prevent. As an instance of this he cites the fact that whereas the losses following inoculation in Nebraska during the past year were ten per cent., the losses among un inoculated animals were but four per cent. Copies of the bulletin may be had upon application to the Secretary of Agriculture, Washington, D. C.

**FEED THE GROWING CHICKS WELL.**  
In June and July our early spring chickens are growing more rapidly than at any other period of the year. They love the warm weather, if they are of the larger varieties, especially; and if they have running room, they cannot well be over-fed, because they find such a variety of insect and green food in the course of their daily journeys around the farm or country plot. Their condition is quite different from that of adult or mature grown fowls. These may be over-fed easily, and will put on fat internally, to their discomfort and detriment. But the young stock, in good thrift, convert what they eat into flesh, bone and muscle, and continue to thrive during the heated season upon all they ordinarily pack away in their craws, particularly if allowed a variety of good provender. Don't stint them, therefore, in feeding, but give them all they will eat up clean. Thus they will grow in stature and keep generally in good health. It is a mistake to under-feed the growing chickens. They require more solid food from the time they are three to six or seven months of age, in proportion, than at any time before or afterward in their lives. This fact is worth observing and remembering by all who aim to have the "best birds" in the succeeding fall and winter, annually.—American Poultry Yard.

**HUMANE WATERING OF HORSES.**  
That a horse should never be watered oftener than three times a day, or in twenty-four hours, is a mistaken idea and brutal practice. A horse's stomach is very sensitive and will suffer under the least interference, causing a feverish condition. Feeding a horse principally on grain and driving it five hours without water is like giving a man salt mackerel for dinner and not allowing him to drink before supper. If you know anything about the care of horses and have any sympathy for them, water as often as they want to drink—once an hour if possible. By doing this you will not only be merciful to your animals, but benefit yourself, as they will do more work, look better, and live longer. If you are a skeptic, and know more about horses than any one else, you are positive that the foregoing is wrong, because you have had horses die from watering too much, and boldly say that the agitators of frequent watering are fools in your estimation, and you would not do such a thing. Just reason for a moment, and figure out whether the animal would have over-drank and overchilled his stomach if he had not been allowed to become over-thirsty. A horse is a great deal like a man. Let him get overworked, over-starved, or abused, and particularly for the want of sufficient drink in warm weather, and the consequence will always be injurious. Sensible hostlers in large cities are awaking to the advantage of frequent watering. Street car horses are watered every hour, and sometimes watered every half hour. It is plenty of water that supplies evaporation or perspiration and keeps down the temperature. What old-fogy methods amount to may be seen by the change in medical practice to man. Twenty years ago a person having a fever of any kind or pneumonia was allowed little water to drink, and then it had to be tepid. Today practitioners prescribe all the cold

## RAILWAYS OF THE WORLD.

**SIXTY-SEVEN YEARS' PROGRESS IN STEAM TRAVEL.**  
The First Roads—Fast Runs—Traveling Palaces of Royal Princes—Interesting Statistics.

THE operation of steam railways began in England by the opening of the Stockton and Darlington line, September 27, 1825. The world then saw the commencement of a gigantic enterprise; one that has extended to every civilized and to almost every uncivilized country on the globe, and which has become the greatest of all enterprises and industries, and whose magnitude is greater than any other single interest in the world.

This Stockton and Darlington Road was a single track affair, thirty-eight miles in length, and the greatest speed attained was twenty miles an hour. Four years after opening of this road the first line was opened for general traffic in the United States, August 9, 1829, on the Mohawk and Hudson Railroad. The first locomotive used on this line, and consequently the first that ever turned a wheel in the Western Hemisphere, was the "Stourbridge Lion," imported from Stourbridge, England, by the Delaware and Hudson Canal Company in May, 1829.

The second railroad in America upon which a locomotive was ever run was the Charleston and Hamburg of South Carolina, which also had the honor of being the first regularly operated passenger road in this country, and the first to adopt the locomotive as a definite motive power. The engine used on this road was the "Beck's Freedom," the first machine of the kind constructed in this country, and was built in West Point Foundry. It made its trial trip in November, 1830.

At the beginning of the present year 166,817 miles of railway were in operation in the United States. It would be difficult, no doubt, to imagine a perfectly straight line of rail for the entire distance from New York to Boston, but such a railway with such a straight stretch does, however, actually exist in the New Argentine Pacific Railway from Buenos Ayres to the foot of the Andes. For a distance of 211 miles the line is laid without a curve. The level nature of the country will be evident from the fact that there is neither a cutting nor an embankment deeper or higher than three feet. This is the longest straight stretch of railway in the world.

Another wonderful piece of railway in South America is on the Cauca, Lima and Croya line, running from Arequipa, Peru, to La Paz, Bolivia. This is a railway in the clouds, for it reaches a point 14,666 feet, or nearly three miles above the level of the sea. The whistle of a locomotive is heard at no higher point of this railway a tunnel 3845 feet long is being bored through the peak of the mountain, 600 feet above the perpetual snow line. The railways of the Andes exhibit some of the most remarkable results of engineering skill which the world contains.

The new railway—the Brienzner Rothorahbahn—which was begun October 1, 1890, and has just been completed and opened, is the highest railway in the Alps, and also in all Europe. It is 7885 feet high at the summit level, where it commands magnificent views. The highest point of railway in the United States is on the Denver and Rio Grande Railway. At Marshall Pass this road attains an elevation of 10,859 feet. The longest railway system in the world operated by one single company is that of the Atchafalaya, Oneonta and Sante Fe Railway, which covers 7110 miles. The longest journey taken by any European train is from Paris to Constantinople, 1857 miles.

The two countries having the smallest number of miles of railway are Persia and Porto Rico—each has but eighteen miles. In the former country there are only two locomotives and four cars. "The smallest railway in the world is that from Ravensgill to Boat, in Cumberland, England. The gauge is three feet, and the engines and carriages are miniature. The stations resemble double bathing houses more than anything else. The entire staff of employes is composed of an engineer and stoker combined, guard, ticket collector, ticket distributor and two porters.

The shortest steam railway in the world is at Buffalo, N. Y., and is known as the Island Railroad, and is but one-eighth of a mile in length. Owners of private cars seem to vie with each other in the magnificence of their coaches. The Imperial train which has just been completed for the German Emperor consists of eleven carriages, and has occupied three years in construction, and cost nearly \$985,000. There is nothing like it in the world. Many of the details were planned by the Emperor himself. The carriages include a study with red Gobelin tapestry from Charlottesville, a saloon upholstered in white satin, a nursery, a reception room adorned with marble statuary, an oak dining room and large separate sleeping rooms.

Queen Victoria's traveling carriage is one of the handsomest Pullman cars that have ever been built. The walls are of satinwood, highly polished. The cushions are of white silk embroidered in gold thread. The apartment contains four easy chairs, besides a satinwood table about six feet long and three feet wide. The carpet is of velvet, luxuriously covered here and there with luxurious India rugs. The curtains at the windows and the magnificent portieres are hung on silver poles. The door handles are solid silver. The whole saloon, with its fittings, etc., cost about \$36,000.

The fastest time ever made on an American railway was recently done on the Reading road, when a locomotive drawing four passenger coaches covered a mile in 39 1/2 seconds, which speed, if maintained, would come very near to one hundred miles an hour.

The fastest long distance run that was ever made in England was the famous performance on the London and North-western between London and Edinburgh, 400 miles, August 13, 1828. Three stops were made, the average speed attained while in motion being 55.4-10 miles an hour. Four successive miles were done in 47 1/2, 47, 47 and 47 seconds. The Empire State Express, which runs daily over the New York Central road, is the fastest regular train in the world. The distance run is 430 miles, the stops being Albany, Utica, Syracuse, Rochester and Buffalo. The actual running time, deducting stops, is 52 1/2

## TEMPERANCE.

**TOUCH IT NOT.**  
Sanctioned by custom, licensed by the State, worshipped by rich and poor, by small and great!

Sung of poets, praised by doctors too, Caroused alike by pulpit and by pew; The demon Drink roguish prouder o'er the land, And few indeed his cunning wiles withstand, The yellow barley bends to the light winds, And grapes in clusters load the trembling vines.

God's precious gifts for man to love and use, And not to wildly squander and abuse; If from a king the mandate should go forth, From east to west, from sunny south to north, That all the barley waving in the field, And all the grapes the well-kept vineyards yield, Should in the ocean recklessly be thrown, There would arise one universal groan, And pile his meagre wealth with myriads more, But man, a tyrant to himself, does worse; Turns a rich blessing to a fruitful curse; Crushes the grapes and a barley till the life, Once filled with comfort, with rich rife, God made the barley, but man made the beer.

A truth which to the younglings still is dear, Oh, for His sake, who came to save the lost, "Rescue the perishing" at whatever cost, And lift your voice in palace or in cot, A voice of warning, crying, "Touch it not!"—W. A. Eaton, in Temperance Advocate.

**A TEMPERANCE TOWN.**  
In Mendocino County, Wis., there is a hamlet of 100 population, and there are thirteen saloons. The pay-roll of the mill company amounts to \$900 a month. And of this sum it is estimated that \$800, or more than one-eighth, is spent at the saloons. On the other hand, at another village a few miles distant, the pay-roll is \$1,200 a month, and it is known to go for liquor. The mill company owns the town site and allows no saloons, and they have erected a church building and largely supported a minister. The respectability of corporations and companies for safe-guarding as much as possible the men in their employ, though obvious enough, is too little regarded.

**WISDOM DRINK AS A FACTOR OF CRIME.**  
At a recent funeral of a man who was killed in Kansas City, Mo., in a saloon riot, Rev. Dr. Jesse Bowman Young, pastor of the Grand Avenue Church of that city, in his remarks declared that by actual count, a majority of the murders which had been committed in that city in the last ten years, had been perpetrated by men imbricated and maddened by drink.

The man who committed this murder was himself a drinking man, and the police force, Dr. Young took occasion also to read the Mayor and other officials a sharp lecture for the placing of drinking men on the police force. When the temperance cause is true in other places where acts of violence are committed, the majority, and a large majority, are perpetrated by those who have been drinking. The responsibility of the evil deeds by the maddening influence of alcohol.

**A NATIONAL DISGRACE.**  
A beer "canteen" has been in operation almost a month in the city of Chicago. It is located in a Government building formerly known as a cavalry barracks, is in charge of a Lieutenant of the Quartermaster's Department, and the bartender is an enlisted man. The receipts of this "canteen" are reported, says the New York Herald, "have reached \$1900 in a single month." The Herald adds: "It is not a 'canteen,' instead of lessening the consumption of intoxicants, as many thought it would, has increased the amount of drink being sold in the city at the post. The soldiers are given credit at the 'canteen,' and each pay-day they hand over what the bartender's slate shows, or they give their pay in kind, but are a national disgrace. They ought to be forthwith abolished.—National Temperance Advocate.

**MODERATE USE OF ALCOHOL.**  
The way in which persons often become the unconscious victims of alcohol is stated by the Faculty of Hygiene of the Police Statute of Neu-châtel, Switzerland, as follows: "The small quantity of liquor consumed on each day, are what make of an honest citizen a victim of alcoholism without his ever having exceeded the amount of drink of complete intoxication, and without his having suspected the danger to which he was exposed." It is this habitual moderate use of alcohol, which is the real cause of the habit of drinking as a personal bondage for those who indulge in it, but which is also often attended with most disastrous after-effects in accordance with the law of heredity as shown in the descendants of such drinkers. Many who would be shocked at the thought of being habitually drunk, do not so far harm or endanger in the "moderate" use of alcoholic beverages, and thus become, without suspicion, a prey to the over-austeric alcohol habit.—Sutton's Advertiser.

**GREAT BRITAIN'S DRINK BILL.**  
While the annual drink bill of the United States is appallingly large, it does not represent such a great degree of addiction to intoxicants as the annual rum expenditure of some other countries. Great Britain is far worse in this respect than ourselves. The population of the United Kingdom, by the census of 1891, was 37,888,153; ours, in 1890, was 62,629,292. Our per capita drink bill is, in round numbers, \$700,000,000; the total sum spent for beer and spirits in the United Kingdom during the year 1891 was \$708,553,000—about \$10 per head, including women and children. Hence, bad as our case is, Great Britain is worse. There was an increase during 1891 of about \$6,000,000 in the total amount spent for intoxicants; but the friends of temperance over there find ground for hope in the fact that there has been a decided decrease in the amount of distilled liquors used, and an increase in the quantity of beer. They are hopeful also because they find a decrease in the extent of violent drunkenness, the total amount spent for beer alone last year was \$78,000,000—nearly \$300,000,000.

An most hopeful sign, however, of an amelioration of the drink evil in Great Britain is the fact that heavy drinking is becoming unfashionable in that country. This may seem a faint hope to some, but it is more than that. A century or so ago heavy drinking was common in the best American society. We all know the vast change for the better that has been wrought in this matter among our own people. Great Britain is a little slower than we are, that is all.—Tribune.

**Hood's Sarsaparilla.**  
Cured me of Gout or swellings in the neck which I had from 10 years old till I was 32. When I began taking Hood's Sarsaparilla I was feeling so discouraged with gout and rheumatism. When I thought I could not walk two blocks without fainting. Now I am free from all and I can truly recommend Hood's Sarsaparilla."—Mrs. ANNA SUTHERLAND, Kansas, Mo.

**Man's Record on the Sea-Floor.**  
It is a singular, and perhaps somewhat humiliating fact, that the most conspicuous and indelible record which man is making in the strata now forming on the sea floor is written in the bits of coal and ash which are cast from our steamships as they pursue their way over the ocean. The quantity of this debris is very great, and unlike the wrecks, it is very evenly scattered along the paths followed by our steam marines. It is likely that already, in the track of our transatlantic commerce, not a square rod would fall to give a trace of this waste from our coal-burning engines. As this material is not attacked by the marine animals, and is very little affected by the other agents of decay, it will doubtless be very perfectly preserved in the strata which are to bear the records of our time. In the eventual formation of a deposit containing a notable quantity of cinders, it may be that our successors in the far hereafter will interpret our, perhaps otherwise unrecorded ways of voyaging.—Scribner.

## EVERY MOTHER

**Should Have It in the House.**  
Dropped on Sugar, Children Love to take JOHNSON'S ASSORTED LIMEJuice for Croup, Colds, Hoarseness, Throat, Whooping Cough, and other ailments. It is a pleasant and refreshing beverage, and is sold in all parts of the world. Price per bottle, \$1.00. Sold by all druggists.

**Tutt's Tiny Pills.**  
stimulate the torpid liver, strengthen the digestive organs, regulate the bowels, and are unequalled as an antibilious medicine. Dose small. Price per bottle, \$1.00. Sold by all druggists.

**DO YOU READ ADVERTISEMENTS?**  
To the first 20 who mention this paper and ask for free trial of our "Tutt's Tiny Pills" we will send a box of 50 pills for free. Write to the publisher, J. C. Tuttle, Chicago, Ill.

## DR. KILMER'S SWAMP ROOT

**DR. KILMER'S SWAMP ROOT.**  
Lumbago, pain in joints or back, brick dust in urine, gravel, catarrh, irritation, inflammation, frequent urination or catarrh of bladder.

**Disordered Liver.**  
Impaired digestion, gout, biliousness, headache, dizziness, indigestion, flatulence, constipation, etc.

**Impure Blood.**  
Scrofula, malina, gonorrhea, or debility. Guaranteed to cure. One bottle, if not better, Druggists will refund to you the price paid. Sold by all druggists. Price per bottle, \$1.00. Sold by all druggists.

**DR. KILMER'S SWAMP ROOT.**  
Lumbago, pain in joints or back, brick dust in urine, gravel, catarrh, irritation, inflammation, frequent urination or catarrh of bladder.

**Disordered Liver.**  
Impaired digestion, gout, biliousness, headache, dizziness, indigestion, flatulence, constipation, etc.

**Impure Blood.**  
Scrofula, malina, gonorrhea, or debility. Guaranteed to cure. One bottle, if not better, Druggists will refund to you the price paid. Sold by all druggists. Price per bottle, \$1.00. Sold by all druggists.

**DR. KILMER'S SWAMP ROOT.**  
Lumbago, pain in joints or back, brick dust in urine, gravel, catarrh, irritation, inflammation, frequent urination or catarrh of bladder.

**Disordered Liver.**  
Impaired digestion, gout, biliousness, headache, dizziness, indigestion, flatulence, constipation, etc.

**Impure Blood.**  
Scrofula, malina, gonorrhea, or debility. Guaranteed to cure. One bottle, if not better, Druggists will refund to you the price paid. Sold by all druggists. Price per bottle, \$1.00. Sold by all druggists.

**DR. KILMER'S SWAMP ROOT.**  
Lumbago, pain in joints or back, brick dust in urine, gravel, catarrh, irritation, inflammation, frequent urination or catarrh of bladder.

**Disordered Liver.**  
Impaired digestion, gout, biliousness, headache, dizziness, indigestion, flatulence, constipation, etc.

**Impure Blood.**  
Scrofula, malina, gonorrhea, or debility. Guaranteed to cure. One bottle, if not better, Druggists will refund to you the price paid. Sold by all druggists. Price per bottle, \$1.00. Sold by all druggists.

**DR. KILMER'S SWAMP ROOT.**  
Lumbago, pain in joints or back, brick dust in urine, gravel, catarrh, irritation, inflammation, frequent urination or catarrh of bladder.

**Disordered Liver.**  
Impaired digestion, gout, biliousness, headache, dizziness, indigestion, flatulence, constipation, etc.

**Impure Blood.**  
Scrofula, malina, gonorrhea, or debility. Guaranteed to cure. One bottle, if not better, Druggists will refund to you the price paid. Sold by all druggists. Price per bottle, \$1.00. Sold by all druggists.

**DR. KILMER'S SWAMP ROOT.**  
Lumbago, pain in joints or back, brick dust in urine, gravel, catarrh, irritation, inflammation, frequent urination or catarrh of bladder.

**Disordered Liver.**  
Impaired digestion, gout, biliousness, headache, dizziness, indigestion, flatulence, constipation, etc.

**Impure Blood.**  
Scrofula, malina, gonorrhea, or debility. Guaranteed to cure. One bottle, if not better, Druggists will refund to you the price paid. Sold by all druggists. Price per bottle, \$1.00. Sold by all druggists.



**The shadows that fill your life, if you're a feeble, suffering woman, can be taken out of it.** The chronic weaknesses, functional derangements, and painful disorders peculiar to your sex, can be taken away. The one unfailing remedy for them is Dr. Pierce's Favorite Prescription.

It corrects, cures, and builds you up. It improves digestion, enriches the blood, dispels aches and pains, melancholy and nervousness, brings refreshing sleep and restores health and strength. For periodical pains, internal inflammation and ulceration, weak back, leucorrhoea, and all kindred ailments, it's a positive specific—one that is guaranteed. If it fails to give satisfaction, in any case, the money paid for it is returned.

The great, gripping, old-fashioned pills make trouble. Dr. Pierce's Pleasant Pellets prevent it. Theirs is the natural way. Sick Headache, Biliousness, Constipation, Indigestion, and all derangements of the Liver, Stomach and Bowels are prevented, relieved and cured. Small, cheapest, easiest to take.

**"August Flower"**  
"I am Post Master here and keep a Store. I have kept August Flower for sale for some time. I think it is a splendid medicine." E. A. Bond, P. M., Pavilion Centre, N. Y.

If it fails, everything fails. The liver, the kidneys, the lungs, the heart, the head, the blood, the nerves all go wrong. If you feel wrong, look to the stomach first. Put that right at once by using August Flower. It assures a good appetite and a good digestion.

**RISSING SUN STOVE POLISH.**  
DO NOT BE DECEIVED. Buy the genuine. It is the only one that will clean and polish your stove, range, and all the brass and copper articles in your house. It is the only one that will clean and polish your stove, range, and all the brass and copper articles in your house.

**DR. KILMER'S SWAMP ROOT.**  
Lumbago, pain in joints or back, brick dust in urine, gravel, catarrh, irritation, inflammation, frequent urination or catarrh of bladder.

**Disordered Liver.**  
Impaired digestion, gout, biliousness, headache, dizziness, indigestion, flatulence, constipation, etc.

**Impure Blood.**  
Scrofula, malina, gonorrhea, or debility. Guaranteed to cure. One bottle, if not better, Druggists will refund to you the price paid. Sold by all druggists. Price per bottle, \$1.00. Sold by all druggists.

**DR. KILMER'S SWAMP ROOT.**  
Lumbago, pain in joints or back, brick dust in urine, gravel, catarrh, irritation, inflammation, frequent urination or catarrh of bladder.

**Disordered Liver.**  
Impaired digestion, gout, biliousness, headache, dizziness, indigestion, flatulence, constipation, etc.

**Impure Blood.**  
Scrofula, malina, gonorrhea, or debility. Guaranteed to cure. One bottle, if not better, Druggists will refund to you the price paid. Sold by all druggists. Price per bottle, \$1.00. Sold by all druggists.

**DR. KILMER'S SWAMP ROOT.**  
Lumbago, pain in joints or back, brick dust in urine, gravel, catarrh, irritation, inflammation, frequent urination or catarrh of bladder.

**Disordered Liver.**  
Impaired digestion, gout, biliousness, headache, dizziness, indigestion, flatulence, constipation, etc.

**Impure Blood.**  
Scrofula, malina, gonorrhea, or debility. Guaranteed to cure. One bottle, if not better, Druggists will refund to you the price paid. Sold by all druggists. Price per bottle, \$1.00. Sold by all druggists.

**DR. KILMER'S SWAMP ROOT.**  
Lumbago, pain in joints or back, brick dust in urine, gravel, catarrh, irritation, inflammation, frequent urination or catarrh of bladder.

**Disordered Liver.**  
Impaired digestion, gout, biliousness, headache, dizziness, indigestion, flatulence, constipation, etc.