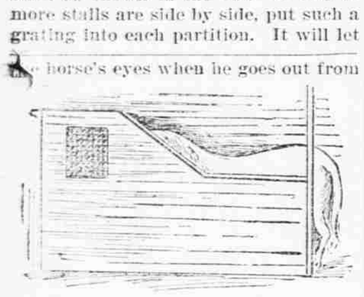
Light in Horse Stalls.

Many unwisely put a small window at the front of the horse stall, causing the light to fall directly into the horse's eyes. It is a wonder that a horse has any eyesight after a few months' exposure to such a condition. Entire absence of light in the stall is to be avoided, however, for this causes injury to the darkness into the strong light. When the light cannot be admitted from the rear, but must come from the side, put a grating into the side of the stall, as shown in the cut. If two or more stalls are side by side, put such a grating into each partition. It will let some light into even the stall farthest from the windows. Such grating comes in various sizes of mesh, and is sold at the hardware store.



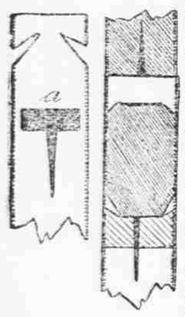
LIGHT FROM THE SIDE.

Curing Tobacco.

"We are working on a new line of tobacco investigation," said Secretary Wilson to a correspondent, "ferments in tobacco. But little is known scientifically about the curing of tobacco. I tried last year, when in Florida, to find out from the Cubans why they had certain processes in curing the leaves. They had exact methods for proceeding, and they knew what the results would be, but they did not know why they did it. It was because their fathers had done it before them. This matter of ferments in tobacco is a very interesting question. We know that fermentation in the silo reduces the supply of nitrogen, and we know that in cooking food composed largely of proteids, or nitrogenous matter, a loss is sustained from a feeding point of view; but in tobacco curing we know comparatively little; that is, whether we want to retain or dispose of the nitrogen. The department has now two agents at work upon this subject, one, a noted German scientist, has been engaged, and will proceed South on this investigation."

When the Buckle Is Gone.

The accompanying illustrations, from the Orange Judd Farmer, show how to join the ends of the driving reins together when the buckle has been lost. With a pocket knife cut the end of each rein, as shown at a, then by slipping the extreme end of each through the tack-shaped opening of the other, a reasonably firm union is effected. The necessity of always keeping the reins fastened together cannot be too strongly emphasized. If a horse becomes frightened, and one rein is dropped, there is no possible way of recovering it, if it is not fastened to the other. Many a runaway has resulted from a failure to observe this precaution.



Field Peas for Orchards.

There is natural adaptability of the orchard for peas aside from the fact that the pea roots increase nitrogen in the soil. The pea must be sown early, and therefore the plowing is done when it does not injure the tree roots. Then the broad leaves of the pea shade the soil and apparently absorb enough moisture at night to keep the plant fresh and growing. Then after the peas are harvested the hogs can be turned in to eat what have been scattered in harvesting. If the hogs are left without rings in their noses they will root over the surface soil and thus cover what excrement they have dropped. This with continued extra feeding in the orchard is the best way to enrich it.

Flavor of Flesh.

The Live Stock Journal says with much emphasis and with truth that "the meat of all animals is affected by the food they eat: the ducks taste fishy that live on fish; beechnuts bacon from pigs fed on beechnuts has the finest flavor, and hogs allowed to feed on stinking, filthy slops and on dead animals must produce meat that is unfit for human food. In this land of abundant food we should feed sound, clean, healthy food and fresh, clean slop or clean water."

Shelter for Sheep.

Sheep suffer if kept in close, underground, unventilated stables, which are pretty sure to be also damp and have foul air. Even in warm weather sheep will prefer to sleep on knolls, not merely to be able to watch against danger, but also to secure free circulation of pure air. So long as the roof keeps out the rain, the open texture of the wool on the sheep's backs will keep cold out, however severe, provided it is not accompanied by wet. The sheep need this shelter from rain, even when the weather is not so very cold, though the oil which nature provides protects the skin from being wet, unless the storm is so long continued that the sheep is chilled through.

Bring Fruit Trees Into Bearing.

Fruit trees of any kind frequently grow with great luxuriance. In this they are usually unfruitful. No tree commences to flower and fruit until its vegetative exuberance has been somewhat checked. Those who understand the art of fruit culture thoroughly can bring these wayward trees into a straighter line of duty by root-pruning them. It is effected by digging a trench around the tree and then filling it up with the earth that has been thrown out. This cutting off the ends of the roots causes check to the extreme vigor, and the result is the production of flowers instead of branches. The distance from the trunk that the trench should be dug will, of course, depend upon the age and size of the tree, and also its ratio of luxuriance; the aim should be to dig so as to cut off about one-third of its roots. The pear, as well as other fruit trees, is particularly benefited by root-pruning. It can be carried out at any time during the fall or winter season. — Meehan's Monthly.

Feed for Milk.

Wheat bran and wheat middlings are pre-eminently milkmakers in the opinion of Prof. Hills. He believes them absolutely safe when fed in any possible quantities. They carry considerable percentages of protein, and, at ruling prices, are in every way desirable dairy feeds. Cornmeal he considers economical according to how it is fed. Sometimes cornmeal may be used to advantage in a dairy ration. Some fault is to be found, however, with the extent of its use. It is wiser to feed corn in the form of a silage rather than to pluck and grind the ear. If, however, the silage is deficient in corn, it may be supplied in the shape of meal. Indeed, up to the limit of making the ration too heating, it may sometimes be an advantage to add cornmeal to the ration even when the silage is well eared, but more particularly because it tends to better the grain of butter.

Thinning Fruit.

The practicability of thinning fruit and its feasibility from a commercial standpoint have been pretty well demonstrated in the last few years. Mr. John Craig reports, in the publications of the (Canadian) Central Experimental Farm, some results in thinning peaches and plums which corroborate the notes given from others. He concludes that, when a large crop of fruit is set, thinning peaches is highly remunerative for the following reasons: 1. It increases the weight of the yield. 2. It largely increases the size of the fruit. 3. It reduces the number of matured seeds, thereby considerably lessening the drain on the vitality of the tree. 4. It renders the crop less liable to rot. Thinning plums likewise proved altogether worth while.

Good Wool.

Wool is affected by breed, climate and food. Sheep will thrive in some sections better than in others, and wool from some flocks will bring higher prices than other wools. To produce good wool the sheep must be well fed, but not too much so. If the food is not sufficiently nutritious the wool will lack in strength, be dry, harsh, flabby and rough to the touch. Wool from sheep that are kept on pastures which provide abundant herbage is long in fiber, soft, white and strong. It is claimed that all foods which promote perspiration produces fine wool, but it is not necessary to make a selection of foods if the sheep have a variety.

Stopped the Paper.

"Once upon a time," says the Hontzdale (Pa.) Journal, "a man got mad at the editor and stopped the paper. In a few weeks he sold his corn at 4 cents less than the market price. Then his property was sold for taxes because he didn't read the Sheriff's sale. He paid $10 for a lot of forged notes that had been advertised two weeks and the public warned against them. He then rushed to the printing office and paid several years' subscription in advance and had the editor sign an agreement he was to knock him down if he ordered his paper to be stopped again."

Feeding for Eggs in Winter.

Many writers advise that farmers should force their hens to lay in winter by heavy feeding, as eggs are high in price in cold weather. It is not so easy to force hens to lay as may be supposed. Hundreds of hens that are well fed in winter do not lay. The fact is that the food is but a factor in the matter. It is not natural for birds to lay in winter, and to induce hens to lay at that season they must have spring and summer conditions, such as warm quarters, an opportunity to exercise any food of a varied character, avoiding grain in excess.

Healthfulness of Fruit.

Eat some fruit each day, to keep the stomach in tone. The acid of sour fruits, as of the apple and pear, is the best corrective to the nausea that comes from eating too much fat meat, and there is no better way of taking it than in the apple sauce made with boiled-down cider. It is always appreciated.

Growth of Shrubs.

It is amazing to notice how much an ordinary shrub will grow in a single summer. A silver fir 2½ feet high was lately carefully measured. It had put forth 585 new shoots, varying from one-half inch to 6 inches each

Defective City Streets.

The movement for better highways was undertaken mainly to effect the improvement of those roads which lie outside the limits of towns and cities and, in large parts, traverse purely rural districts. The mileage of such roads is very great; their condition is often deplorable; many of those who use them most appear indifferent to their improvement and violently opposed to spending any money on them, or even to changing time-worn methods of maintenance. These conditions have proved serious obstacles to the general inauguration of road improvement; but, by united and prolonged effort, and years of work, they are gradually being surmounted.

The condition, however, of the streets, in most of the towns and cities which do not come within the scope of the good roads movement is, relatively, about as bad as that of the country roads. In some of the towns and cities few streets are paved at all, and in most of them much of the pavement is rough, badly laid, and poorly kept. This seems the more strange, as the wealth, progressiveness, commercial activity and intelligence of the country are concentrated, in large measure, in and around the centers of population.

It would appear that the needs of modern life should have long ago led all places of any size or pretense to facilitate local development by affording commerce the best possible means to prosecute its undertakings by providing smooth, paved ways within their borders for quick and easy transportation. It would seem that disease should have been warded off, death rates reduced, and reputations for healthfulness sought after, by laying pavements, easily and cheaply cleaned, and equal to the requirements of modern sanitary methods. It would be supposed that the recreation of the populace would have been everywhere provided for by the construction of boulevards, parkways and parks that would provide place for pleasant change and healthful exercise in leisure moments. In short, there are many reasons why, the more dense the population and the greater the volume of business transacted, the better the pavements should be.

It is seldom that such is the case, and it is the more curious because Americans usually demand in large measure all those things that make for their comfort and pleasure, and it is the more disgraceful because the necessity for something better is constantly and painfully apparent, and the facilities and means are at hand to provide all that can be required.

A gentleman just returned from abroad has stated that our city streets compare even more unfavorably with those of foreign cities than do our country roads. It is not difficult to believe this. Though the round cobble is perhaps no longer laid, there are streets where their abominable surface must be traversed. The forms of block pavement more generally used can be made to give good results, but they rarely do so, owing to being improperly laid on soft foundations, which speedily allow them to sink in spots, and depressions soon appear in which the water stands after every storm.

But it is not necessary to enumerate the defects of city streets—they are obvious to the millions who tread them daily. Their improvement on modern, scientific lines is a constantly growing necessity.—L. A. W. Bulletin.

One Effect of Better Roads.

A Long Island farmer says that before the roads were macadamized, when he reached the foot of a certain hill with a ton load on his wagon, he was obliged to stop and take off half the load; then after hauling half his load to the top of the grade he would unload that and retrace his steps to the foot and bring up the half he had left there, and, after picking up the part first brought to the top, he would continue the trip. Now he is able to haul the entire ton up the hill without difficulty.

QUEER CHANNEL ISLANDS.

Odd Mixture of Nationalities, with Adherence to Old Customs.

During the last five years many American tourists, aroused by the vivid descriptions of Victor Hugo, have visited the famous Channel Islands, of which Jersey, Guernsey and Alderney are the largest. These are between England and France and their inhabitants are an odd mixture of the two nationalities. They are very conservative and keep up many of the customs of ancient times. Some of them are quite pretty and have been reproduced in England and America by returned travelers.

One is to have the bedrooms look into the garden and not the street. When this cannot be done a glass partition with a door is built across the room, and the half by the window is made into a conservatory. Another useful idea is a little clay-lined iron brazier, used for broiling meat over a charcoal fire. It makes no smoke and can be extinguished quickly. For rapid and comfortable cooking in summer it is invaluable. The islands are warm and fertile and are famous for lettuce, chicory, salsify, endives, sorrel, cress and other delicate vegetables. These are made into mixed salads and also into omelettes, like the so-called Spanish omelettes. The latter are tasty and very wholesome. The islanders excel in pastry. Fruits are the favorite food. They are served raw, sliced with the famous Jersey cream, baked with custard, stewed with a little wine and sugar and strangely, in pies, good American pies! The Guernsey mince pie has no meat or suet in its composition. It is made of apple, pear, peach, plum, berries, raisins, grapes, citron, sugar, butter, spices, wine and brandy and is reported to be exceedingly fascinating. A "Jersey luncheon," as now given by experts, consists of bouillon, a mixed salad, a sardine pastry, a Guernsey mince pie, then wine and coffee, which is not bad for Jersey.

THE FRENCH ARMY.

It Would Not Strain the Republic to Place in the Field 2,500 000 Men.

The French budget for the present year shows that the peace strength of the French army amounts to 546,044 men. Of this total number 26,402 are officers. These figures describe the home army alone and mean that the nation has that many men at hand in France. The army in Algiers consists of 55,911 men, of whom 2,197 are officers, and the army in Tunis consists of 13,458 men, of whom 552 are officers. Add the number of the home army to that of the army abroad, and the total will be 615,413, of whom 29,151 are officers. Including all the departments, the French army has 142,638 horses in its service. If France were called upon to engage in war with any European nation at this time she would be ready to put into the field 541,026 for the active army alone, and 25,790 for the gendarmerie and the republican guards. That is a pretty good fighting force to throw into action at once. France, back of her superb army, has a grand store of men to draw on. The number of men liable to military service in France is estimated thus: The active army and its reserves, all well trained soldiers, 2,350,000; the territorial army (active), 900,000; the territorial reserve, 1,100,000. These give a grand total of 4,350,000. Such a tremendous force as this would not of course be available at once. But if France were called upon to put forth its best military strength quickly she could bring into action with no trouble whatever an army of at least 2,500,000 men.

Shortened His Sentence.

A man charged with bigamy was once brought before Judge Gary, of Illinois. The accused had lived two years with the second woman, and he concluded to plead guilty on the understanding with the state's attorney that the sentence would divorce him from Number Two. When he stood before Judge Gary the little man looked over his desk and asked in a voice of kindness:

"You full understand what the plea of guilty means?"

"Yes, your honor."

"And do you understand if you so plead it will be my duty to send you to the penitentiary? Do you understand that??"

"Yes, your honor. Anything to get free."

The judge looked at the man for a moment and then said in his inimitable manner:

"I suppose there are some things beside which prison would be a relief. Any relative or friend of the defendant in court?"

A woman in black stood up on a bench, and said in a voice which sounded like a rip of cambric:

"I am his second wife, judge."

Judge Gary, immediately, with no change in his voice or face, said:

"Some things beside which prison would be a relief. You ought to be willing to take three years."

The prisoner nodded an assent.

Judge Gary loked over at the woman in black. He seemed to read her in a second. He turned to the man who had pleaded guilty and said:

"I will give you one year. You seem to have had the other two before they arrested you."

Christening Made Easy.

The peculiar and amusing names borne by North American Indians are obtained in a novel and interesting manner.

In the first place the children's names are not selected by the parents, as among civilized races, but are bestowed by the doctor or medicine man of the tribe. After attending a birth, this personage betakes himself to the entrance of the wig-wams and gazes around. The name of the object or scene which first attracts his attention is also the name of the newly born child. Thus should the sun happen to be rising, the appellation of "Rising Sun" is the child's name; or if a bird is flying past, he or she is known through life as "Bird-in-the-air."

On the whole, the idea is not bad, if only for the sake of relieving the parents of the vast amount of anxiety and discussion experienced by parents of other lands when a child's name is to be decided; but all the same it is just as well that the custom is not general, for how would a young lady or gentleman feel if the doctor had found it expedient to christen her or him "Street car" or "Electric light."

Lighthouse in a Cemetery.

Throughout the world there are hundreds of lighthouses dotted along the coast, but a lighthouse in the midst of a cemetery is a rare thing. Such a one, however, has just been erected in the cemetery at Ulverston, Lancashire, Eng. A Miss Wilson had it built in remembrance of her father, who died in London eighteen months ago.

A working man often refuses to believe that he is getting along well unless he has a debt, when he can represent himself as a hard-working man trying to get out of debt.

The hand that rules the dyspeptic makes the pie.

TOPICS FOR FARMERS

A DEPARTMENT PREPARED FOR OUR RURAL FRIENDS.

Poultry Raising as a Business—Thin Soils May Be Made Fertile by Turning Under Green Crops—Hints on Ice Harvesting.

In all occupations it is the strict observance of business principles that results in success. Raising poultry is no exception to this rule, and those who have and are making the business a decided success are but receiving the reward that follows the faithful application of strictly business methods. This so-called luck, good or bad, is merely the effect of proper or improper methods.

Success in poultry culture is no haphazard affair, but is secured only by regular methods, and the closer the application and more careful and earnest, the greater becomes the success.

One reason why many fail to meet with success when they increase their flocks is that they fail to increase their accommodations in proportion to the increase in their flock; they fail to recognize that large flocks are difficult to feed so that each individual may secure its allotted share; the various ailments have to be guarded against where large flocks are kept that are comparatively unknown among the moderate-sized flocks. The man who has attained success with a fair-sized flock should be very cautious how he increases it, expecting thereby to increase his profits. He should make a careful note of the facts that have resulted in securing profits.

A good way to increase the flock is to do it on the colony plan. After you know how to care for, say fifty hens, then start another yard of fifty hens. Then you will either double the number of hens with not quite twice the amount of labor, and you should have twice the amount of profit. This should be followed up until you can increase by another colony of fifty hens. By method you will be able to care for 500 hens, and do it as successfully as you did with the first fifty.

Remember that it is the little things that make the success good or bad on the poultry farm.—Indiana Farmer.

How to Help Thin Soils.

Shallow, thin soils that are deficient in vegetable matter, or, in other words, are barren from excessive cropping, can be made fertile only by the turning under of green crops grown by the aid of chemical manures, or by spreading a thick coat of rotted straw, leaves or swamp grass over the ground and turning this vegetable matter under four inches in depth. The following spring spread forty bushels of fresh lime to the acre, and harrow it in both ways. Plant the field to corn, applying 250 pounds of bone phosphate to the acre in the hill. Work the corn five or six times, and not more than three inches in depth. Cut the corn off early in September; harrow the stubble well, and then drill to wheat, putting in with the grain 300 pounds of bone phosphate to the acre and seed one peck of timothy in the fall and one peck of clover in the spring upon each acre. After the grain is harvested roll the stubble and keep off all stock. If there is a rank growth of grass, foxtail and ragweed, cut it off with the mower the first week in August, setting the cutter bar high. These weeds and grasses, if cured in the cock, will make excellent rough fodder for wintering young cattle. Pasture lands and run-out hillside fields can be cheaply improved by spreading a coat of straw on the surface and then spreading forty bushels of fresh lime to the acre over the straw. Let the field lie until next fall, keeping off all stock, then plow the field shallow; harrow well and drill to grain, applying 300 pounds of some good bone manure to the acre and seed down to timothy and clover.—The American.

Preventing Apple Rot.

A writer in the Practical Farmer, says: "On my father's farm is a Janet apple tree about twenty years old which never produced any sound apples until recently. The tree bloomed freely and set a great many apples, which rotted before maturing. On examining the tree we found the bark rough and scaly, and under the scales hundreds of bark lice. The leaves also looked badly, having a pale green appearance. In May, 1896, I pulled off the scaly bark and applied with a brush a mixture of soapsuds and carbolic acid, half pint acid to two gallons suds. In 1897 we sprayed the tree with the Bordeau mixture just after the bloom had fallen and again two weeks later. During the summer the foliage was of dark green, and in the fall we picked several bushels of excellent apples."

Harvesting Ice.

As soon as the ice is six inches thick it should be cut. Cut and stack it up alongside of the pond. Clear, solid ice, properly packed in a good house, will keep. Snow ice is very porous, and, being full of air-holes, will soon melt. The ice should be marked off and sawed out in medium-sized blocks. A handy block to handle is one twenty inches square. Square blocks pack more closely. The more compact the ice can be put away the better it will keep. The icehouse should be cleaned out, the rails laid abot six inches apart in the bottom of the house, and one foot of straw spread over the rails. See that the board siding next to the house is in good condition. Holes should be nailed over to keep the ice from coming in contact with the earth. As the ice is put in, leave a ten-inch space between the ice and the sides of the house. This space should be rammed solid with leaves or chaff. Haul and pack the ice when the weather is cold. Ice packed when the weather is severe will freeze into a solid mass. Pack the ice layer by layer, and fill up the holes with small pieces of ice. Snow when it falls on ice that is to be cut should be brushed off the next day before it freezes. Farmers living near the city and having a pond of clear spring water can find a profitable market for all the good ice they have to spare.

Keeping Potatoes.

A correspondent of Farming suggests that potatoes will keep best at a low temperature, a little above freezing. Many potatoes are spoiled by being kept in too warm a place during the early fall and late spring. They should be kept in a dry place. If it will keep dry, a deep cellar is preferable, for the reason that it is more likely to have a low uniform temperature, and will not be reduced to freezing temperature so readily as more shallow ones. The bins in a potato cellar should not be too large. A three-hundred-bushel bin should be the largest used. Smaller ones would suit better. Slatted floors for the bins and slated walls between the bins, which allow the air to pass around them, are better than close walls or floors. The circulation of air which they allow keeps the potatoes dry and prevents heating.

It is not a good plan to put potatoes in the cellar as soon as they are dug. It is better to put them in pits in the field until the weather gets cold enough to freeze the ground a few inches deep. In pitting them temporarily, if the ground is wet, put the potatoes in a conical pile on the surface; but, if the ground is dry, dig a shallow pit for them and use the dirt out of it for covering. After the potatoes have been placed in an even conical pile, cover them with a layer of pea or other straw about four inches thick, and then cover them with from three to five inches of dirt. In such a pit potatoes will keep through a severe frost.

A Pound of Pork.

It requires 13.50 pounds of skim milk to produce one pound of pork when fed with corn meal, ratio 1:14.7 to fattening hogs.

Skim milk could not be economically fed to fattening hogs unless it was a product which could not be otherwise utilized.

It required on an average 4¼ pounds of shelled corn to produce one pound of pork during an average period of four weeks, or one bushel produced 13¼ pounds.

It required 4¼ pounds of cornmeal to produce one pound of pork, or one bushel of corn made into meal and fed will produce 12¾ pounds of pork.

When dry, shelled corn is more economical than cornmeal to feed fattening hogs.

It required 7½ pounds, or one bushel, of ground oats to produce one pound of pork, when fed with equal parts, by weight, of cornmeal.

One bushel of cornmeal is worth nearly three bushels of oats as food for fattening hogs.

Corn-fed pigs gained 4½ pounds per week and ate about 21 pounds of corn per 100 pounds of live weight.

Pork was produced during the cold weather, with corn at 28 cents per bushel, for less than 3 cents per pound.

Indian corn is the most economical pork-producing material during the winter months in regions where extensively grown.—Market Basket.

To Kill Lice on Hogs.

In answer to an inquiry, the Orange Judd Farmer gives the following instructions: "Before using any remedy have the pig house cleaned and hot lime sprinkled over the floor, and the walls whitewashed with fresh-burned lime. Then brush the hogs well to remove all dirt from the skin. Stavesacre seed, 1 quart; water, 20 quarts; boil this for one hour; let it simmer one hour longer, then strain and add water to make it up to the twenty quarts again. Rub a little of this well in all over the body. If the stavesacre seeds cannot be obtained, use 1 pound of black tobacco to 20 pounds of water in the same way as the stavesacre seeds."

Paper to Exclude Cold.

Common paper being, if whole, impervious to air, makes a very good covering where it can be kept from being wet. By using tarred paper and placing it between two thicknesses of matched boards, the paper can be kept in good condition several winters, provided mice do not gain entrance. The imprisoned air which the paper will hold between the boards makes the very best kind of non-conductor. Even the newspaper spread over the bed, or, better still, placed between the coverings, prevents much cold air getting through to the sleepers beneath, and a folded newspaper at the chest or back, under the clothing, is a great protection against cold in day time.

Street Cars Supplying Cigarettes.

An experiment for the convenience of passengers is in preparation by the North Metropolitan Tramway Company of London. Their cars are to be fitted with automatic machines for the supply of cigarettes—two ordinary ones for a penny, or one of superior quality for the same coin. This, of course, is for the convenience of outside passengers only, for, as heretofore, the interior of the vehicle is strictly reserved for nonsmokers. One of the cars has been fitted with its automatic machine at the company's works, Leytonshire, and should the experiment prove successful others will be similarly supplied.

Fooling the Lordly Plumber.

Freezing will not injure a newly patented water pipe, which has a yielding core in the center, strong enough to withstand the force of the water under natural pressure, but which collapses as the ice expands, and prevents bursting, the core enlarging again as soon as the water thaws and the pressure is removed.