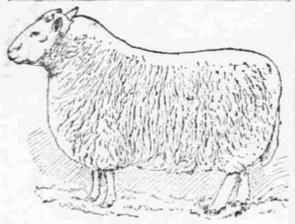




The Cheviot Sheep.

This excellent sheep has been too much neglected by breeders on this side of the ocean. While it is thought to be a mountain breed its life is spent only in part on verdant pastures of the Cheviot hills, for it is bred mostly for crossing by the Leicesters in middle and southern English pastures for the London markets. The cross-bred produce are excellent feeders and very popular among the butchers, the mutton being of the first quality and having the flesh marbled with fat, rather than covered with it, and is thus tender and juicy. This sheep, while not the largest, is a heavy animal, making 150 pounds at two years old when well fed on good pasture with a moderate allow-



CHEVIOT SHEEP.

ance of grain. The fleece is rather coarse, but long and glossy, and is in demand for the best kinds of clothing.—Montreal Star.

American Apples in Europe.

The United States Consul at Chemnitz, Germany, advises Americans to ship their apples this year to Germany. If good fruit is chosen, such as will stand a long voyage—the Baldwin apple, for instance—he is confident that the business will prove to be a paying one. Complaint has been made in Germany against American fruit because of the fear of the introduction of the San Jose scale, which is one of the most destructive diseases known to fruit. Investigation has shown that the fear of the Germans has been exaggerated. It is not denied that the San Jose scale is found in some parts of the United States, but diseased fruit is not shipped abroad. Such a course would soon result in destroying the export business. German experts are now in the United States studying our fruit. So far as known they have not advised exclusion. Americans have much to learn about packing fruit, but they are gaining a strong hold in the foreign markets. For the five years preceding 1896 the annual average of shipments of fruit from this country to Germany amounted to over \$4,000,000.—Baltimore American.

A Double Barn.

The accompanying illustration shows a plan for a barn with double drive-ways in which the distinguishing feature is the great amount of loft room. Four gables added to the main roof space give almost another story's capacity to the barn, making it possible to use nearly the whole of the lower floor for stock. With a silo and the root cellar that will be found in the basement it will be possible to carry a



BARN WITH BIG LOFT.

large stock on the fodder that can be stored beneath the roofs. There are many conveniences about a double barn, and when one is to be built the form here given will prove an excellent one to follow.—New England Home-Steak.

Roll-Rolling Winter Grain.

While the roller is a good implement for fining and smoothing the surface soil, it can very rarely be used effectively after winter grain is sown. Almost all farmers agree that if soil is heavy, it will produce better crops of winter grain if the soil is left rough after it is seeded. All the lumps are dissolved by winter freezing, and they furnish the fine, rich dust that is needed to fall upon the roots as they have been lifted up by frost. The only conditions when rolling is helpful to winter grain are when the soil is light, and liable to blow away in winter. In such case the rolling should be done as soon as the grain is sown. It will pack the light soil around the roots, and thus cause the wheat to make enough growth so as to partially protect itself from winter killing, and will lessen the effects of winds in blowing away surface soil.

Plowing Frozen Ground.

If there is a thin crust of frozen soil, or even a light fall of snow on the ground when it is fall plowed, it will be none the worse for the soil next spring. The frozen soil holds up the

furrow better, even though when turned to the bottom it is soon thawed by the earth's internal heat. The result will be that frost will penetrate to the bottom of the furrow, giving the soil a much finer tilth than would be possible by repeatedly cultivating it.

Choice Bacon.

The secret of producing choice bacon, says the American Swineherd, lies in the feed trough. If any one doubts this, let him put two Poland-China, Berkshire, Chester-White, Duroc, Jersey or any of our recognized breeds of hogs in two different pens, feed one all the corn he can eat until fat, and the other boiled potatoes, milk, barley or wheat ground fine and some pea meal until fat (the old country way). Kill both, put in dry salt for six or seven weeks, then take out and wash, and hang it up in the kitchen or drying house until thoroughly dried; then cut off a good, big chunk and boil it, let it stand till cold; then cut off a few slices, and you will see the corn-fed meat is not so firm, is more oily, and not so many streaks of lean as meat fed on barley, potatoes, milk, etc., and this is all the difference you or any one else can detect.

Cats Around Barns.

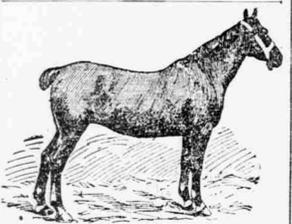
The habit which many people have of petting cats and keeping them close by the kitchen fire very soon destroys the hunting instinct and makes the cat good for nothing as a mouser. On the farm especially, the proper place for a cat is at the barn, where it can make itself useful killing the mice or rats that destroy the grain. It is a mistake to suppose that a cat will suffer from cold while thus employed. Exercise will keep the blood circulating, and the cat will be quite as warm if kept dry as it would be dozing by the fire, and breathing the vitiated air that is always found near the floors of dwellings. The cat will usually, if there is a chair or a bed in the room, make that her resting place.

Private Market for Butter.

A farmer who has all the facilities and who knows how to make the best butter ought always to sell to private customers, who will also take his fresh eggs and other farm products at prices somewhat higher than he can get in the open market. But if he does this he must obligate himself to supply what is needed throughout the year, and that it shall never be below the standard. It is this last condition that prevents farmers from making such bargains. To make the best butter in winter requires care in feeding, and also in handling milk and cream, which too many are unwilling to undertake.

Hackney Filly Goldfish.

The hackney filly Goldfish is the property of Mr. Alexander Morton, Gowanus, Darvel, Scotland, winner



of second prize for Challenge Cup for best filly, three years old and under, London hackney show, 1898.

Home-Made Sausages.

There is no kind of meat food so palatable as a well-made sausage. But the fact that when made it is almost impossible to tell what meat it is composed of prevents many who only eat what they buy from using it. On the farm the well-made, wholesome sausage should be a specialty. It is a common mistake to put in too much fat. Not more than a quarter of the whole should be fat. If some lean and fat of beef, not to exceed one-quarter of the whole, is put in the sausage it will improve it. Much of the excellence of the sausage depends on the flavoring. Too much pepper and spices are found in most sale sausages.

Onions as Food.

Despite their disagreeable effects as breath perfumers, the common onion is much the most healthful vegetable grown, and all would be healthier if onions cooked in some way were a part of the daily diet. Drinking milk after the onion will to a great extent absorb the odor. Those farmers who grow and use many onions keep their health better than do those who are too faintly to eat this vegetable. In southern Europe raw onions are eaten as part of the daily meal, laying a slice of onion on the bread and then biting through both together. The Spaniards have a very mild onion that is quite commonly eaten thus.

The Demand for Quinces.

There is a poor apple crop this year in most places, and as a result there is very little demand for quinces, whose use as a fruit seems more to give flavor to the apple sauce than to be eaten by itself. The quince is a very rich fruit, and is also hard, even when thoroughly cooked. It is therefore difficult to digest. But a few pieces of quince cut thin and placed in apple pie will give it a delicious flavor, such as no apple sauce could have without it.

Variety of Feed for Stock.

In feeding stock of any kind it is important that it be furnished a variety of food. This is not merely a matter of flavor, for different kinds of food furnish usually different nutrition. A great deal of the success of animals pastured lies in the fact that they are able to select their own rations, and the care they will take to do this indicates that this is a matter of greater importance than it is usually considered.



A Word on Roadmaking.

There is no better test of the progressive character of a people than good roads. This is exemplified in the early history of the republic. The building of the great national road from Washington to St. Louis, through a sparsely settled region of the States of Ohio, Indiana and Illinois, was the means of settling those States. On the approach of winter it becomes the duty of those persons acting as roadmasters to put the roads in good condition to meet the necessities of travel. Gravel roads, where good gravel can be obtained, are becoming more in demand than the macadam or broken-stone roads. That is owing to the difficulty, almost everywhere in the West, of getting stone that will resist the action of frost. Roads can be covered with gravel during the winter as well as in summer, where the roadbed is left in good shape by the road leveler. In illustration, one of the principal approaches to the city of Muscatine, Iowa, over which a large part of the grain and produce is hauled, is down a steep hill cut through a high bluff. Through the cut a number of seeps or springs made the road a bed of mire even in midsummer. Muscatine has a very extensive deposit of gravel within half a mile of the city limits. The road got so bad that the city decided to cover the roadbed with gravel. This was done in winter, the gravel being dumped on the frozen surface. Even some of the gravel was in frozen lumps. It was only put on from eight to ten inches when it should have been at least twelve inches, and yet that street became and has remained the best street for travel in the city, without mud or dust. The best gravel is that mixed with clay, as it packs easier and makes a good surface. Where mixed with sand the wheels passing over it keeps it loose. There are few sections where gravel cannot be obtained, and thus the farmers can employ their teams during an idle period. It must be borne in mind that a well-made gravel road does not call for the constant care and repair required by the common clay road.—Chicago Record.

A California Plan.

The State Highway Commissioners of California have prepared a draft of a bill that will be submitted to the coming Legislature and which they think will result in good roads throughout California. The plan is to provide that one-half of all moneys collected in the counties for road improvements be placed in a separate fund, to be expended on roads indicated as State highways, the contracts for the work to be let by the Supervisors on plans and specifications to be approved by the Commissioners.

The Legislature will also be urged to pass a bill to the effect that when any county completes five miles of road in accordance with the proposed amendment the same shall on petition to the Highway Commission and with the approval of the Governor be accepted by the State as a State highway and maintained as such.

The Commissioners assert that the counties raise annually nearly two million dollars for road purposes and that under the proposed amendment and without increasing the present tax, from seven hundred and fifty thousand to one million dollars would be put into permanent improvements yearly, and that in the course of a few years every county would have many miles of good roads, which would be maintained by the State at no expense to the county.

Resources of Southern Mexico.

Consul General Pollard sends from Monterey a partial list of the resources of Southern Mexico: Coffee, cocoa, rubber, bananas, rice, tobacco, sugar cane, pineapples, oranges, lemons, figs, maize, ebony, sassafras, rosewood, walnut, oak, logwood, quassia, Sarsaparilla and cotton. The climate is endless summer. Two crops of vegetables may be raised each year. The Government has granted to a company from Stamford, Conn., an immense tract of land from which dye woods will be exported. Intending settlers should carry with them not less than \$600 in gold, which will pay all of the family expenses for the first year. As an instance of fruit culture, the consul tells of one farm of 125 acres near Montemorelo. On it are 17,000 orange trees and 5,000 peach trees, besides mandarins, grape fruit, Japanese plums, apricots, pears, lemons, olives, grapes, blackberries and raspberries.

Baby's Picture.

A young photographer, when asked what sort of subjects presented the greatest difficulties to him, replied without a moment's hesitation, "Babies." "I don't mean the babies themselves," he added. "It is not so hard to get what I consider satisfactory negatives of them. It's the relatives that make all the trouble."

"For instance," he continued, "I took photographs of a little ten-months-old fellow the other day, in six different positions. Yesterday I sent the proofs to his mother, and to-day she brought them in."

"I'm sorry," she said, "without any obvious grief, but none of these negatives will do."

"Not one of the six?" I inquired, though I was prepared for what was to follow.

"No," she said, "I'm afraid not. You see, I like this one very well, though of course it doesn't begin to do baby justice; but his aunt Ellen says it's an ab-

solute caricature of the dear little fellow! The one she likes, I don't care for at all, and his papa says he never should know for whom it was intended, it looks so cross, and baby is such a sunny child.

"The one he likes, this smiling one, I shouldn't consider for a moment, for it makes baby's mouth look so much larger than it really is."

"His grandmother chose that one, but as cousin Fanny said, there's a very queer look to the child's eyes in it—very queer! However, she likes that one where he's almost crying—that sober one. You ought to have heard baby's grandfather when she said she liked it."

"He really decided the thing, for what he said seemed so sensible. He asked me why I didn't have some more taken, and see if there wouldn't be at least one that would really look like baby. Now when can he sit again? It's hard for me to spare the time, but you see it is the only thing to be done!"—Youth's Companion.

PROUD OF THEIR POVERTY.

Dervishes Who Lead a Strange Life in the Soudanese Desert.

The meaning of the name dervish is "one who asks nothing of any living creature." Their pride is said to be in their poverty. They are fatalists, socialists and believers in metempsychosis. Mysticism is in all they do, and a religious zeal that is almost insanity. They are not priests, but the laymen of their people. In order to become a dervish the applicant must pass through a long and severe initiation ordeal, consisting of a series of performances each one more difficult than the last. The closing scene is a test of personal bravery and endurance. Hot bars of iron are handed to them, which they clasp with delight, hugging them in a frenzy, to their flesh, fighting and struggling for them, lick them caressingly, and put them far into their mouths with a joyful air of doing a pleasant task. The sheikh signifies his approval of the manner in which they bear their torture and applies some saliva to their wounds. Now comes the wonderful story of mysticism. Investigators declare that in twenty-four hours not a wound is visible; all are healed. Doubtless the performance is a conjurer's trick, and shows a method in their madness.

Luxury or Books.

Richard De Bury once said: "The library, therefore, of wisdom, is more precious than all riches; and nothing that can be wished for is worthy to be compared with it." Success gives an interesting anecdote, told by Agassiz, of his visit, when a young man, to the great German naturalist, Prof. Lorenz Oken.

The professor received his guest with warm enthusiasm, but apparent embarrassment. He showed his visitor the laboratory, and the students at work, also his cabinet, and lastly his splendid library of books pertaining to zoological science, a collection worth some seven thousand dollars, and well deserving the glow of pride which the owned manifested as he expatiated on its excellence.

The dinner hour came, and then the embarrassment of the great German reached its maximum point.

"Monsieur Agassiz," he said, with perturbation, "to gather and keep up this library exacts the utmost husbandry of my pecuniary means. To accomplish this, I allow myself no luxury whatever. Hence my table is restricted to the plainest fare. Thrice a week our table boasts of meat, the other days we have only potatoes and salt. I very much regret that your visit has occurred upon a potato day."

And so the splendid Switzer and the great German with his students dined together on potatoes and salt. And what must those students have enjoyed in the conversation of those remarkable men!

Dirtiest and Laziest.

In the Svanetician villages in an inaccessible mountain range between the Black and the Caspian Seas live the laziest and dirtiest people in the world. Their houses are stone hovels, incredibly filthy, and filled with rags and vermin. The cooking is done in a hole scooped out in the middle of the floor. Throughout the long winter they are shut in for days and weeks at a time, the cattle sharing their quarters, because of the cold. Every hole through which ventilation might come has to be closed to keep the inmates warm. The horrible diseases which come because of this are aggravated by the abnormal consumption of arrack, the distilled drink of the Asiatics.

Mixed Diet Best or Man.

A mixed diet is apparently the best food for man. It is possible for man to subsist on vegetables alone, but he will have to take larger quantities of food and eat more frequently during the day, otherwise his energy would scarcely be sufficient to meet all the requirements of an active life. Yet, on the other hand, man cannot live on a meat diet alone, for experience has proved that indulgence in meat is directly injurious to health.

Tit for Tat.

The French ambassador of the day complained to a bright Englishman of high rank because her country failed to intervene in the Franco-Prussian war, ending his diatribe with the remark: "After all, it was to be expected. We used to think you were a nation of shop-keepers, and now we know you are." "And we," said she, "used to think the French a nation of soldiers, and now we know they are not."

After a woman has done her duty to her kin, her church and society, she has mighty little time left for duties that are of real importance.

TOPICS FOR FARMERS

A DEPARTMENT PREPARED FOR OUR RURAL FRIENDS.

Growing of Tobacco Is on the Increase—Rot Cornstalks in the Soil—Growth of Commercial Fertilizer Manufacture—How to Judge a Horse.

A farmer sat on his porch one day. Thinking of his fields and meadows of hay.

Of his fine bred horses and fine bred cows. Of his fleecy sheep and his full-blooded sows.

He thought of the work of his hands and brain

It took these traits in his pets to train: How he had labored and toiled night and day

To make good breeds that would always pay.

But never once did he think of the hen

That was out in the yard singing just then;

You see she was a mongrel, a half-breed, Just come up, you know, like an old weed.

But nevertheless she had bought and paid

For the cloth of which his pants were made.

She often furnished full half his meal.

For if he didn't get eggs he'd be sure to squeal.

His hat she furnished the eggs to buy,

And I'm not sure but she bought his tie.

His shoes, which were of the very best, Came also from old biddy's nest.

Just then his wife came out with a pan

Filled half full with corn meal and bran.

She gave the hen a gill or two,

Saying, "My good old friend, how are you?"

The farmer looked up in a dreamy way

And with a scowl on his face began to say,

"Those old hens don't begin to pay,

For they do nothing but eat and lay."

These last two words were spoken by his wife.

Who had worked with poultry all her life.

Said she, "Look here, they're our best friend,

For they furnish all the money we have to spend."

She showed him how the mortgage was paid

By the many eggs that biddy had laid.

"Well, we'll get a new breed next year,"

He said as he kissed his wife so dear.

—Poultry Farmer.

Preparing Ground for Tobacco.

The growing of tobacco seems to be on the increase and to be coming more into prominence every year as an agricultural crop. The zone of its influence seems to be enlarging in an agricultural sense. Parts of the country that were formerly regarded as unfitted for the growing of this plant are coming into prominence as tobacco growing regions. The tobacco plant holds a unique place in our agriculture. We cannot look upon it either as a food or ornamental plant. In itself it is a poisonous weed. It was formerly thought that tobacco growing greatly exhausted the ground, but under proper methods this is believed now not to be the case.

Growers of tobacco say that the culture of the soil should begin a long time before the culture of the plant, to get the best results. The land should be thoroughly plowed and harrowed in the fall. Stable manure should be used in large quantities. This should be done in the fall to give the manure time to decay, as the tobacco plant grows so rapidly that there is no time for manure to undergo chemical changes after the seed has sent out the shoot. It is advised to avoid the use of manures too heavily nitrogenous, and to use considerable potash. After the plants are on the ground cultivation should be frequent and thorough.—Farmers' Review.

Rotting Corn Stalks.

Farmers are coming to realize more and more that the cornstalks should not be burned—that by rotting them in the soil its physical texture would be improved so as to resist drought better. The problem is, how to get them sufficiently decayed the first season.

Where corn is cut up and shocked, first break the stubs as much as practicable and use the stalk-cutter. Follow this with disk harrow, mixing the corn stubble and top soil together. This stubble in contact with the soil all winter, absorbing water from rain and snow, freezing and thawing while damp, will by spring become fozy and discolored and so far decayed that when turned under it will soon disintegrate. If the crop is not cut up, gather the corn as soon as it can be cribbed; pasture it at once if it is wanted for pasture, and break down the remaining stalks, treating them in the same way as already suggested. If the stalks can be partly or wholly rotted in this way they are worth more to feed to the next crop than their value as pasture. Test both stubble and stalks this winter. It may not be the best way, but it may lead to the discovery of a much better way to dispose of the stalks than by burning up that which is so much needed to improve the physical texture of our soil, even if it does not add much nitrogen.—Kansas Farmer.

Commercial Fertilizers.

One of the industries which have developed in huge proportions in the last third of a century is the manufacture of commercial fertilizers. The annual production of fertilizers now reaches in value about \$40,000,000, and the business is increasing rapidly. A great many of the best chemists in Europe and America are devoting their lives to the study of the subject and to devising combinations to cheapen and improve fertilizers. Farmers have become so well advised as to the kind of fertilizers they need for various soils that they cannot be imposed on. They know what

they want as well as the manufacturers, and if the suitable goods are not offered they make no purchases. Superphosphates, potash salts, nitrate and ammonia salts, industrial by-products, such as tankage, dried blood, cotton-seed meal, etc., are the principal elements from which the standard fertilizers are compounded. Production of fertilizers has been greatly cheapened, and as the goods are reduced in price the market for them broadens. An experienced manufacturer makes the prediction that within ten years the production will aggregate \$100,000,000 annually. The Agricultural Department is paying especial attention to this subject.

How to Buy a Horse.

If you want to buy a horse, take no man's word for it. Your eye is your market. Don't buy a horse in harness. Unhitch him and take everything off but the halter, and lead him around. If he has any failing, you can see it. Let him go himself away, and if he walks right into anything you know he is blind. No matter how clear and bright his eyes are he can't see any more than a bat. Back him, too. Some horses show their weakness or tricks in that way when they don't in any other. But, be as smart as you can, you'll get caught sometimes. Even the experts get stuck. A horse may look ever so nice, and go a great pace and yet have fits. There isn't a man who could tell it until something happens. Or he may have a weak back. Give him the whip and off he goes for a mile or two, then all of a sudden he stops on the road. After a rest he starts again, but soon stops for good, and nothing but a derick can start him.—Southern Stock Farm.

How to Make a Cheap Ice House.

Select or make a level place of ground near the house where least exposed to the summer sun, and cover it with any kind of cheap boarding. Leave space between the board for drainage. Place stout posts at each corner, the two at the front being 2 feet higher than those at the back, to support the slanting roof. Nail rough boards all around to the height of 2 1/2 feet and then nail similar ones to the inside. Fill up this space on all sides with sawdust or tan bark, and cover the floor to a depth of 10 inches with the same. Select a freezing day, when the ice is in its best condition for storing. Have the ice cut in as large squares as can be handled, and pack it as closely and evenly as possible, and fill up all gaps with pounded ice, also turning water over each layer. Nail on more boards when the space is filled, and put in more layers of ice until enough is stored for a summer's use; then cover the top with sawdust or tanbark 2 feet deep, and build over it a roof of boards covered with slabs. When ice is removed from it, care must be taken to replace the covering as completely as possible.—Practical Farmer.

Whitewash the Farm Buildings.

The most durable whitewash is that used by the United States Government for painting lighthouses. It is made of three parts fresh Rosendale cement and two parts of clean fine sand, well mixed with clean water. It must be kept well stirred when using and the wall must be wet with clean water just before applying the whitewash, which should be as thick as it can be conveniently spread with a whitewash brush. A good, double whitewash is made by slaking half a bushel of fresh lime with boiling water, dissolve 6 pounds of fine salt in water and thoroughly mix this with the slaked lime and strain it through a fine sieve of coarse cloth, add half a pound of powdered Spanish whiting and one pound of clean glue, which has been dissolved in warm water, add to this five gallons of clean hot water and stir it well over a slow fire until it is thoroughly heated and well mixed, then set it away for a day or two so it will become well seasoned, and when using it keep it thinned with hot water to a consistency that can be readily applied with a white-wash brush and spread it while quite hot.

Feeding Whey to Hogs.

Whey contains more nutritive value than it is popularly supposed to have. Though most of the fats and casein have been taken from it, there is a small proportion of both of these that goes through the press. These have some value, but not enough with the large proportion of water to be fed alone. There is also some sugar which makes the pigs fond of it, and they will eat until they are distended with whey, while growing poor in flesh and not gaining in weight at all. But mix some corn and oat meal with this whey, and add the least bit of linseed meal, and the whey becomes altogether a different food. It might be said that the whey contributes nothing of value to the ration. It does, for it makes it more palatable if given in moderation. The sweet in the whey makes it an appetizer, to encourage the animal to eat more than it otherwise would.

Strawberry Plants in Hills.

To successfully grow strawberries in hills the land must be very rich, and this causes many runners to start out. Now, if these runners are allowed to form leaves and do not strike root, and a great quantity of them are cut off all at once, it is not only a great waste, but it throws the plant out of balance of root and foliage, and thus weakened it is liable to be attacked with rust. If the runners are clipped before leaves form it at once proceeds to form new crowns and fruit buds and its roots and foliage will not be thrown out of harmony. There will be little difficulty of this sort if runners are cut every week.—Michigan Fruit Grower.

Quince Flavoring for Apple Pies.

Whenever apples are cooked for pies or sauce a quince sliced up and cooked with them greatly improves the flavor.