

FARM AND GARDEN

Farm Poultry House.

For a farmer's poultry house I know of nothing that will give better satisfaction than a moveable colony house, such as is used at Macdonald College, Que., a photo and plan of



FRONT VIEW.

which accompanies. This house is 8x12 feet, floor built on two skids and accommodates 25 hens and 3 males in the winter and half as many more during the summer. A team of horses can draw it to any part of the farm that may be desired. This gives fresh ground to the hens, and feed that might otherwise go to waste, can be made use of. For farm use the studding need not be so high, and the house can be built of available material. A loose board ceiling over which is placed straw provides for the absorption of moisture and even in the



PLAN OF INTERIOR.

coldest days, hens are quite comfortable. A farmer can add to his equipment one house at a time, and gradually work up to the desired number.—F. C. Eloff.

Cocklebur.

A good many farmers are still struggling with the cocklebur nuisance. It is possible to rid the ranch of this pest in one year and realize a profit on the operation. Any time before the weeds have attained much height take a plow and harrow to the field and before the day is done sow one and one-half bushels of good kaffir corn to each acre plowed. Harrow well and the next day repeat the operation until the cocklebur territory has been thoroughly covered. When the kaffir seed is in the dough mow or bind with a harvester and you will have one of the very best crops or roughage to be had. Remove this crop from the field as soon as convenient. Two years or so of this kind of tillage will clean out the burrs and the operation is certainly worth while.—Denver Field and Farm.

Pump for the Garden.

A good pump should be part of the equipment of every garden. For the small garden a good bucket, compressed air or knapsack pump will be most satisfactory, while for larger gardens a barrel pump, with an attachment for spraying several rows when occasion demands, or an automatic pump geared to the wheels of the truck, will be found more economical of time and labor. The small compressed air sprayer is handy, as it leaves both hands free for use, and is, therefore, useful if it is desired to spray two or three small trees, possibly with the use of a stepladder to reach their tops.

Fertilizers.

Fertilizers may be divided into two general classes—direct and indirect, or nutritive and stimulant. A direct or nutritive fertilizer is one which furnishes nourishment to the growing crop. Nourishment means simply nitrogen, phosphoric acid and potash. These are the three ingredients which must be renewed through the medium of manures and fertilizers. A stimulant or indirect fertilizer is one which does not furnish an actual plant food to the soil, but by its stimulating action renders available some plant food which previously existed in the soil in an insoluble or unavailable condition.

Sowing Orchard Grass.

If orchard grass is not sown thickly it will not be a success. Three bushels to the acre should be used. Orchard grass is more vigorous than timothy, with a stronger root system; but if a permanent meadow is expected it must be top-dressed freely.

Horses and Corn Growing.

In growing corn one of the factors that is seldom rated at its true worth is first-class motive power. Anyone who has plowed, harrowed, planted and cultivated with an ill-matched, short-weighted, high-strung team knows how difficult it is to do good work. No farm hand thus handicapped can render a service that is satisfactory to a good farmer. Farm teams should be evenly matched as to age, size and temperament. Weight is essential. Teams should be big enough to keep a reserve power constantly on tap; they should draw any implement with ease and at a steady, lively pace. If they are of standard draft type and are shifted occasionally from one class of service to another they will go through the season without breakdowns. This depends, however, to a large extent on how they are fed and managed. Much depends also on the ease and comfort which they enjoy in the collar; sore necks and galled shoulders, due to poorly-fitted collars, prove serious obstacles to good, continuous work. Corn-belt farms should be equipped with heavy draft teams; the highest type of diversified agriculture in that territory depends on this reliable, efficient motive power. Big horses bear a close relationship to a big corn crop.—Chicago Live Stock World.

Dipping Stock for Lice.

There are various kinds of stock dips, and most of them are good. Their use is becoming more common because their value is better known than formerly. Almost every stockman has animals that are not thrifty, and he doesn't know the reason why. It very often happens that such animals are troubled with parasites of some kind, perhaps several kinds. They are too small to be seen with the naked eye, and the farmer tries different kinds of medicines, when an outside application of some disinfectant is the only remedy needed. When stockmen once learn the value of dipping they need no further encouragement. They keep on dipping twice a year, because they know it pays both in dollars and in satisfaction.

We have found crude oil one of the best and most effective louse killers and disinfectants. It makes an excellent dip for swine. It will remove all of the old scales and scurf and improve the general appearance of the herd.

When mixed with crude carbolic acid at the rate of one gallon of crude carbolic acid to fifty gallons of crude oil it makes a cheap and effective disinfectant for use in the hog houses, hen houses and water holes in the hog lot where hogs are accustomed to wallow.

It will, when used alone, prove a very cheap oil to use on farm machinery when it is stored away for winter.

It can be used with safety as a fly repellent on all farm animals by the use of sprayers, and will prove as well adapted to that purpose as many of the more expensive dips and mixtures. For cuts and bruises on farm animals it is excellent and can be used with safety. Use on cows' teats when sore.—Agricultural Epitomist.

Testing Milk.

In some sections many of the best dairymen are adapting the Holland plan of combining and hiring men to visit each herd one day in the month and test the milk of each cow, thus giving the owners an idea of which cows are the ones that are paying for their keep. This plan is a very sensible one and should be encouraged. The cost is comparatively small, as the tester boards with the family while he is doing his work and is carried to the next place the day he has completed his work. This insures regularity in the work. In Michigan this plan has greatly increased the average production per cow. Wisconsin, too, has taken up this matter. It is good business and it may become popular, but some of our dairymen are hard to turn from the beaten paths of their fathers.—Farmers and Drivers' Journal.

When Orchards Fall.

The ashes from apple, pear and peach trees contain about 70 per cent of lime, and the crops of fruit borne every year also contain lime. When orchards fall it is always profitable to apply lime, and it should be done at least once in five years. Wood ashes are preferable to lime for orchards, but the lime is much cheaper. Lime will also prove of benefit to grass that may be growing in an orchard, and it is destructive to certain grubs and other orchard enemies. It is best applied by plowing the orchard land and broadcasting the lime over the surface.

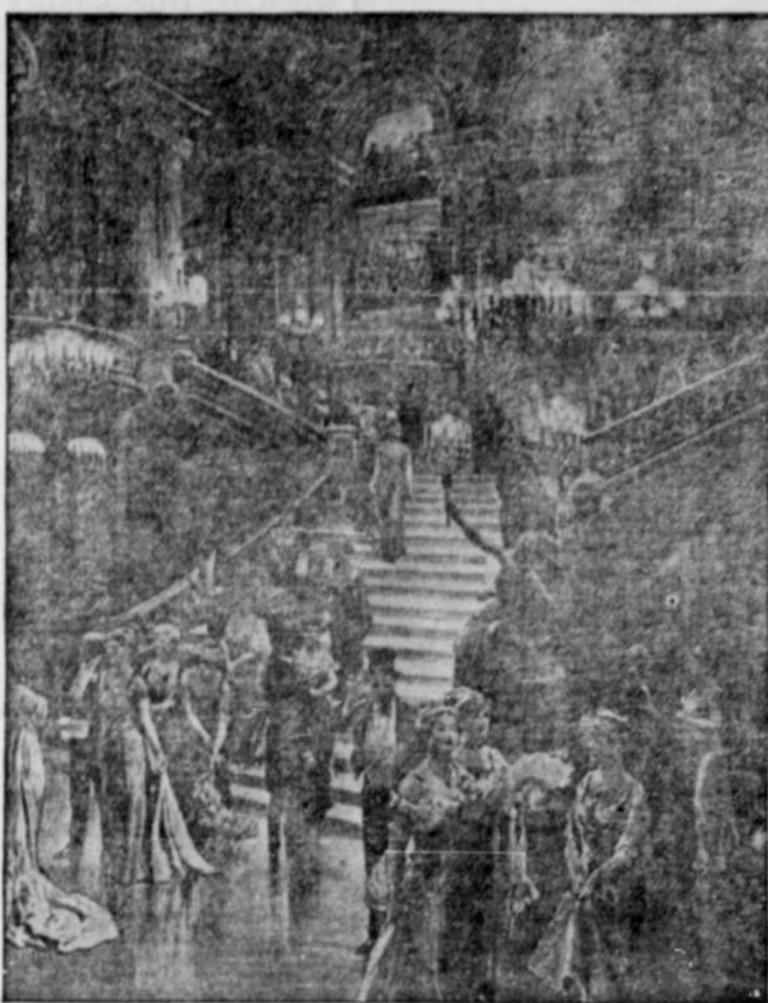
Feeding Sheep.

There are several points in feeding sheep that must not be overlooked. The feed lot must be dry, with plenty of clean, dry bedding; the animals must have plenty of clean, pure water, and the feed troughs should be kept clean. These should be arranged so that the sheep cannot foul them with their feet. Another point is to keep them from becoming excited or frightened. To this end it is better that one person feed them all the time.

Encouraging Forestry.

New York State has taken a practical way of encouraging forestry. During the past planting season more than 1,000,000 seedlings were distributed at cost throughout the state for planting. Where it is desired and is found feasible, the services of a foreman are furnished to direct the planting, the state bearing a share of his expenses. The seedlings were of pine and spruce and were supplied to 149 persons.

THE OPERA IN PARIS—THE GRAND STAIRCASE.



A SPECTACULAR VIEW IN THE PARIS OPERA HOUSE.

Perhaps at no other point can so vivid an impression of the riches and grace of the French capital be gained as at the foot of the grand staircase leading to the interior of the opera house at Paris. The exterior of the building with its colonnade lit with blue mercury lights is familiar to everyone who has been to Paris, but until the visitor has witnessed this scene of shimmering satin and sparkling jewels he will have missed a remarkable sight which only the opera can show him.

Science AND Invention

Arkansas leads among the states in the production of bauxite, her output being more than 60 per cent of the total last year.

Holland has a new law forbidding the adulteration of butter, under penalty of imprisonment, which may reach one year.

The brilliancy of a limelight used in a demonstrating lantern can be increased by slipping it over an ordinary gas mantle.

The United States government maintains fifty-seven wireless telegraph stations and has ninety-six vessels fitted out with the apparatus.

A professorship of aerostatics has been founded in Göttingen University, and schools for training aeronauts are to be established in several German cities.

The word "tungstolier" has been coined to define the fixture used to hold a group of tungsten electric lights in proper position to give the best service.

Austria limits the number of drug stores to the number of inhabitants of a district or city, and the need of an additional one must be clearly shown before the license is issued.

The geological survey is erecting at Pittsburgh a testing plant for structural material that will be able to handle gliders 65 feet long and give them a tension of 10,000,000 pounds.

Government tests have shown that many coals which are too high in ash and sulphur for economical use under boilers or for cooking may be made commercially valuable by proper washing.

Messrs. Henri and Stedel recently demonstrated to the French Academy of Sciences the practicability of sterilizing milk by means of the ultraviolet rays emitted by mercury vapor lamps. Milk thus treated can be completely sterilized in the cold. At the same meeting of the academy Mons. A. Gascard showed that milk to which potassium bichromate has been added as a preservative keeps much better in the dark.

The Yana language of northern California represents a distinct linguistic stock, and had formerly three dialects, one of which is now extinct. It possesses two forms of speech, one of which is employed by men speaking to men, while the other is used in all other cases. Practically, the language has only nouns and verbs, the adjectives, adverbs, numerals, interrogative pronouns and conjunctions being formed from the verbs.

In the Calaveras National Forest there are two groves of big trees. In the North Grove, in Calaveras County, there are ten trees each having a diameter of 25 feet or over, and more than seventy having a diameter ranging between 15 and 25 feet. The tree called the "Father of the Forests," which now lies on the ground, is estimated to have had a height of 450 feet, and a diameter, at the ground, of more than 40 feet. The bark on these trees runs from 6 inches to 2 feet in thickness. Besides the giant sequoias, there are hundreds of sugar pines and yellow pines from 8 to 10 feet in diameter, and ranging to 275 feet in height.

After you get a dollar in your clutches the taint soon evaporates.

A tombstone epitaph isn't necessarily a hard fact.

ARNOLD'S TREASON EXPECTED.

Revolutionary Letter Lately Sold Tells of His Tory Friendship.

An interesting historical letter, relating to Benedict Arnold's treason, Gen. Gates' disastrous campaign in the Southern States and the appointment of Gen. Nathaniel Greene to succeed him there, fetched \$55 at Freeman's in Philadelphia a few days ago, the New York Times says. The letter was written to Greene from Philadelphia, Oct. 5, 1780, by Charles Pettit, a member of the continental congress, who also was assistant to Greene while the latter was quartermaster general. In regards to the West Point treason Pettit wrote:

"I cannot say that Gen. Arnold's treason, so far as respects his turning tory and deserting the American cause, was any great surprise to me. The constant and uniform tenor of his conduct in this city looked strongly that way, and the court he paid to the Tories was too plain and evident and too universal to arise from any other motive than the laying of a foundation for joining them at some day or other, but the magnitude of his treason and the extent of his plan, I must confess, startled and amazed me: I could scarcely have conceived that the pride of an ambitious man and that sense of honor, or at least the pretension to it, which every man of station thinks himself bound to wear the appearance of, whether he really feels it or not, would have prevented a man of his situation to rush at once into a villainy so atrocious and degrading to human nature. But he seems to have been determined not to be a little villain. Nothing short of the highest rate could satisfy him, and in this he has shown his courage, though his plan has failed. I shall at present add only one reflection upon this affair, and that is that I consider it as a public benefit not only that the plot has been so seasonably discovered, but that the attempt has been made."

In writing about Gen. Gates' Southern campaign Pettit says: "The Southern gentlemen particularly seemed desirous that Gen. Greene should be appointed. The Southern people are strongly prejudiced against a Canadian (Gen. St. Clair), having an ugly pest of them in their own bowels in North Carolina."

To Stop Coughing.

Coughing is one of the nuisances that no one has been able to abolish in churches or in theaters. A physician, however, claims that the coughing nuisance is a mere question of acoustics.

"There is a subtle connection between the ear and the throat," he said. "When the ear is strained the throat is affected and a cough is the result. 'When we can hear perfectly in church or theater it never occurs to us to cough. But when we bend forward, straining every nerve to catch the actor's or preacher's muffled syllables, then we find ourselves coughing every little while. Build auditoriums with perfect acoustic properties, and I warrant that the thunderous choruses of coughs, so common now among us will be no more heard."

Tea Possibilities.

"I have just had an invitation to an electrical tea to be given by a woman doctor," said the bachelor girl. "I'm looking forward to it and wondering what is going to happen to us—whether she will give us a little battery and let us entertain ourselves, make the tea on an electric stove, or just electrocute the bunch of us."

Good At Any Station.

Tough Looking Passenger (presenting ticket)—Can I get a stopoff on this?

Conductor (inspecting it)—More than than; you get a kickoff. (Pulls bell rope.)

Thirst for Knowledge.

"I will wait a moment," said the temperance lecturer at the close of his speech, "to answer any questions you may wish to ask."

"Can a person get drunk on sauerkraut?" inquired an earnest woman in the audience whose husband had signed the pledge.

Mothers will find Mrs. Winslow's Soothing Syrup the best remedy to use for their children during the teething period.

How Careless.

He—There was nearly a bad fire at the theater.

She—How was that?

He—The villain lit a cigarette and tossed the match into the snow!—Comic Cuts.

Practical Patriotism.

The thing for you to do now is to get busy so that you will have an income tax to be taxed when all the States agree to it. That's true patriotism.—Indianapolis News.

Lame back and Lumbago make a young man feel old. Hamline's Wizard Oil makes an old man feel young. Absolutely nothing like it for the relief of all pain.

Prints of Men.

"There is such a masculine touch about the dresses she wears."

"You mean that smudgy streak of finger marks along the line of buttons in the back?"—Houston Post.

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Knew His Place.

Housemaid—Please, sir, will you come at once, the drover's room's on fire. Master—Well, go and tell your mistress; you know I never interfere in household matters.—Punch.

His Little Kick.

"In this matter of quick thinking," said the base ball umpire, "all the bouquets go to the players; and yet we fellows have to think as quick as they do, if not a little quicker. If a player works his thinker too slow all he gets is an error. If I do it I get a pop bottle."—Chicago Tribune.

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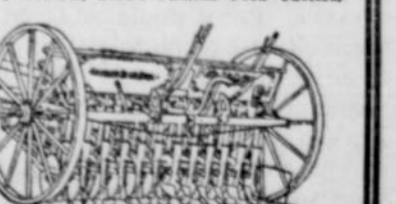
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