

## PROVIDING SUCCULENT FOOD FOR COWS



A Fine Herd of Cattle on Good Grazing Land.

(By L. M. BENNINGTON.)

There is a time between corn cutting time and the close of the pasture season when the cows need and should have some form of succulent foods.

The frost will have spoiled the uncut corn for that purpose, therefore it is a good plan to sow oats and peas for the purpose of supplying the defect and keeping up the flow of milk.

Once a cow is allowed to shrink in her milk flow, it will be very difficult to bring her up again. Corn will help keep up the flow until frost comes, when it should go into the silo, and the oats and peas which the frost do not injure much will take the place of the corn.

It is the common practice to allow the cows to go dry longer than it is desirable. Much depends upon the individuality of the cow.

More winter work by the cows will make the dairy more profitable. Why should a farmer shut up his dairy shop just as soon as winter comes?

There is no economy in allowing the cows to go dry three or four months right in the season when milk is bring-

ing nearly twice the price that it brings during the summer.

The cows must work in the winter, just as their owner does if they are to be profitable.

Some will want to go dry four months, some less, and some not at all, but every cow will need a season of rest of at least a month or six weeks. It will be better for her and her unborn calf.

Sweet corn is better than common field for silage purposes, but it is not adapted for the silo on account of developing too much acid.

If a dairyman is going to feed his stalks dry, sweet corn is better than the field corn; but that is too expensive a way to feed corn fodder. Its place is in the silo, therefore it is best to plant field corn.

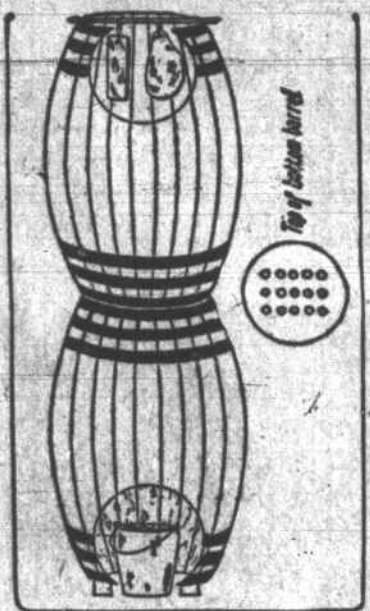
It is impossible to combine in any cow or in any breed, all the desired qualities each developed to its highest extent.

The man who is breeding his cows along the line of beef and butter production is bound to lose at one and what he gains at the other.

## EASY TO MAKE SMOKE HOUSE

Device Large Enough for Smoking Hams and Bacon for Home Use, Is Shown in Illustration.

An easily constructed smoke house, which is large enough for smoking hams and bacon for the home, is shown in the illustration.



Smoke House for Home Use.

shown in the illustration. It consists of two barrels placed one on top of the other, the bottom barrel being raised off the ground and slightly elevated on two blocks. The smoke comes from a fire burning in an old pall or kettle. The hams and bacon are suspended from rods placed across the top of the upper barrel. The bottom is knocked out of the top barrel and the top of the bottom barrel is perforated with holes to allow the smoke to pass through. Some heavy covering is put over when in use.

## CROPS SUITED FOR ROTATION

Use of Alfalfa With Potatoes Questionable Owing to Disease Carried Over on Its Roots.

Alfalfa has usually been considered a good crop to use in any rotation where potatoes are grown. Its use, however, has become questionable owing to the fact that Rhizoctonia may be carried over to the potato crop on the roots of alfalfa. This is equally true of other leguminous crops such as peas, beans, and clovers. The legumes are also infested with seedworm when the soil in which they are planted contains this parasite.

The crops which are least likely to carry any of the potato diseases are barley, oats, corn, buckwheat, broom-corn, rye grass, hemp and celery. Onions are affected with Fusarium, and it has been noticed that "felly end" is worse on potatoes following onions than elsewhere.

## Sell Your Money at Home.

The bookkeeper who sells his money at home is the fortunate one. Especially, is he fortunate if he sells direct to the consumer at a reasonable margin over wholesale prices. It is mighty hard to convince some producers that it is absolutely necessary to ask more for one's money when sold in small lots than when jobbed out in quantities.

## Meat Food for Chickens.

An easy way to provide meat food for chickens is to buy the prepared and dried commercial meat scraps manufactured expressly for the purpose. If a good grade is bought it is not expensive compared with the results it produces.

## Clean and Oil Harness.

Harnesses ought to be thoroughly cleaned and well oiled several times each year. It makes them last longer and improves the appearance of the horses wearing them.

## DAMAGE BY SPRAYING

Shade Trees Injured by Ignorant or Careless Persons.

Widespread Treatment of Different Pests Has Made Necessary Testing of Many Remedies—Many Oils Are Injurious.

(By E. W. MOORE.)

We have at different times had occasion to observe injuries to shade trees brought about by various causes, in many cases resulting from treatment applied by careless or ignorant persons. The present widespread treatment of different pests has made necessary the testing of many remedies, some of which have proved to be more injurious than the pests themselves. These materials have not only been used by careful people trained in the use of different methods for controlling insects and fungi,



Effects of Spraying Heavy Oil on Trees—The Oil Penetrated the Bark and Killed the Tissue.

but by others who are reckless to the point of seeming to delight in taking chances.

Many kinds of oils have been used for spraying insect pests, some of which have proved reliable and others injurious. Kerosene oil can be used on some plants under certain conditions without causing injury, while in other cases it will kill them. We have seen quite a few shade trees killed by spraying with kerosene and water to exterminate woolly aphis; the oil soaked into the bark, reached the cambium and sapwood, destroying the tissue.

Gas oil, a heavy oil used in the manufacture of water gas, is very injurious to trees when used as a spray. A few years ago several hundred shade trees were severely injured in one of the eastern cities by spraying the trunks with this oil to kill clusters of gipsy moth eggs, it being used without any knowledge whatever of its adaptability to this purpose.

Ordinary house paint has sometimes been used on smooth-bark trees with great injury.

Occasionally commercial oils used for spraying fruit trees for the San Jose scale cause local injury, and some shade trees have been known to be affected by their use.

Oils and other materials to keep down the dust in roadbeds are now much in use, and we have observed some injury from this source, when the trees were located close to the highway and the buttresses of the roots were exposed.

Salt used on sidewalks, in gutters and trolley lines in winter has been known to injure the root systems of trees. Arsenate of soda, potassium cyanide and other chemicals are extremely poisonous to trees and will cause death.

## Selection of Cows.

Extreme care is necessary in selecting cows, for no amount of skill in feeding and handling will stimulate a profit from a truly poor cow. A good dairy cow is one with a large capacity for using food above the maintenance requirement and one that uses this food for milk production.

In determining the most desirable breed, one must consult his own likes and dislikes first. The man who likes a Holstein cow and dislikes a Jersey will be more successful with the former.

## Many Horses Ruined.

Hundreds of young horses are daily put out of business and rendered unsalable, except at a loss, because of distemper, worms, indigestion, heaves, etc., all of which could have been prevented had they been taken in time.



Do not wait until apples are dead ripe before picking for winter storage.

Wait until the vines are touched with frost before digging sweet potatoes.

Do not be in a hurry to bring in the pumpkins. They will rot if housed too early.

The water in the cistern may be low and it should be well cleaned before the fall rains.

When the cleoplat wilts under the first frost cover the roots thickly with coarse manure.

Store sweet potatoes in a perfectly dry and warm place. Dampness will quickly destroy them.

Take the last of the sweet corn, cut off the kernels and dry in the sun. It is fine for winter use.

A fine place in which to store fruit during the warm days of autumn is a thick-walled room in the barn.

## GOOD MANAGEMENT OF BOAR

Task of Keeping Him From Herd Is Rather Laborious, But It Is by Far the Best Method.

The best hog raisers do not permit the boar to run with the herd. There are reasons why this should not be done. If one is to control the time of farrowing and the use of the boar it can only be done when he is kept by himself.

It is a too common practice to sell the boar when the season is over rather than keep him for future use, depending upon getting another young one. This is a ruinous practice and is largely responsible for small litters and weak bone. Get a good boar and keep him for a few years. Maturity is good for him.

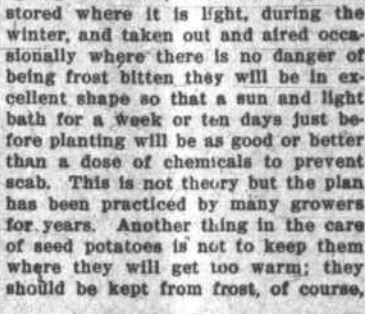
Have a small yard with grass, if possible, hog tight and away from the sows, so he will not be worried. A quarter-acre, with a good house and shade will afford ample exercise in the open air. When grass is not available in his lot, give him cut green stuff daily as long as it lasts. Feed sparingly of fattening foods and supply plenty to keep him in good trim and growing if not fully developed. Mill stuff, skimmed milk, clover, alfalfa—anything that furnishes protein, is advisable. Of course, supply ashes, salt and charcoal.

This keeping the boar away from the herd is more trouble than letting him run, but it is the only way to know just what you are about in hog raising.

## SUNLIGHT FOR THE POTATOES

Tubers Should Not Be Stored in Dark Places as It Is Injurious—Keep Free From Frost.

Aside from the reason that the tubers will sprout if stored in the dark this practice generally makes it necessary to treat the tubers in the spring for scab, while if they are stored where it is light, during the winter, and taken out and aired occasionally where there is no danger of being frost bitten they will be in excellent shape so that a sun and light bath for a week or ten days just before planting will be as good or better than a dose of chemicals to prevent scab. This is not theory but the plan has been practiced by many growers for years. Another thing in the care of seed potatoes is not to keep them where they will get too warm; they should be kept from frost, of course,



Five Quality of Potatoes—Even in Size.

but the temperature should not be above 40 in order to have the best results. Kept on light shelf-trays so that they can be taken down and shifted about occasionally, they will keep in excellent shape if handled as suggested.

## FARMER OWNS HIS EQUIPMENT

Often Happens That It Would Be More Economical to Hire From Others—Interesting Data.

(By E. L. MACDONALD, Colorado Agricultural College.)

The writer is of the opinion that many a farmer is tempted to purchase his own equipment when in reality it would be more economical to hire from others.

Let us endeavor to ascertain how many acres of grain a farmer should cut as his annual average before the purchase of a self-binder is justifiable. We assume the following data:

Initial cost of binder	\$140.00
Annual depreciation, 8 per cent, first year	11.20
Annual rate of interest, 7 per cent	9.80
Annual repairs	5.00
Cost of twine per acre	3.00
Horse labor per hour	11
Man labor per hour	15

Assuming that one man and three horses with a six-foot binder can cut 16 acres in ten hours, we deduce that cost of labor per acre is 30 cents.

As against these items let us suppose that the farmer could hire the grain cut for one dollar per acre.

The above data gives us the conclusion, by elementary algebra that a man should cut an average of 65 acres annually before the purchase of a binder will save him money.

## IMPROVED SOIL FOR ALFALFA

Certain Precautions Must Be Observed in Eastern Sections Before Establishing the Plant.

Although established with comparative ease in almost any section of the West, there are certain precautions which must be observed in the Eastern and humid states before alfalfa will "catch." The first of these is perhaps that of determining whether or not the soil is acid. Alfalfa will not grow in a sour soil. To determine if the soil is acid, press a handful of the soil around a little strip of blue litmus paper—a special kind of paper which any druggist can supply—and allow it to remain for an hour or so. If the blue litmus paper turns pink, the soil is acid; if the paper remains blue, the soil contains no acid.

Cow is Very Susceptible.

The dairy cow is very susceptible to external influences. Give her the right kind of care and feed and she will give you the right kind of work in return.

## INTERNATIONAL SUNDAY SCHOOL LESSON

(By E. O. SELLERS, Acting Director Sunday School Course, Moody Bible Institute, Chicago.)

### LESSON FOR NOVEMBER 15

JESUS AND PETER.

LESSON TEXT—Mark 14:27-31, 34, 36-38.

GOLDEN TEXT—Let him that thinketh he standeth take heed lest he fall.—1 Cor. 10:12.

The record of Peter's failure is a sad story. Mark, who received his Gospel from Peter, gives it in clear outline. This suggests that Peter did not spare himself.

1. After Passover Feast, vv. 27-31. On the way to Olivet Jesus warns the disciples that all would be "offended" (caused to stumble) because of what was about to occur. Not one escaped, Matt. 26:34, Zech. 13:7. Peter, assured in his own mind, denies that this should be true of him, so confident was he of himself and of his devotion. Over-against this warning Jesus sounds the note of his resurrection, and it was chiefly in his inability to catch, or comprehend this note, that they stumbled. Particularly in this true of Peter. That Jesus could find a church on the vulgar tragedy of a criminal's death was beyond the range of his understanding. This self-confidence was the beginning of his fall, Prov. 16:18. It is pride like this which men have in their own strength, that is the chief reason why they are not saved. If they are able to care for themselves, why do they need the help of another?

Peter's Denial. Peter trusted his own heart. A man is a fool who will trust such a deceitful member. Jer. 17:9, Prov. 25:26. Peter's loud profession is answered by a definite prophecy of his utter failure, v. 30. "Before the cock shall crow twice, thou shalt deny me thrice." Again Peter contradicts the Lord, "I will not deny thee." Peter's later denial of the person of Jesus in the judgment hall is prefaced by a denial of his master's assertions on the way thither. He had to learn wisdom and humility in the bitter school of experience. Peter is quite like us all, but he did learn and profited thereby (1 Peter 5:5), which cannot be said of all of us.

2. Following—Afar Off, vv. 53, 54. Peter "followed afar" into the court of the high priest's palace. We have suggested (Lesson of Nov. 1st) that zeal and affection prompted Peter, yet he was expressly forbidden and forewarned, John 13:36-38. Some one has said that the development of Peter's weakness began in the garden when he ceased to pray. That courtyard and its brazier of coals was a dangerous place for any disciple of the Lord. The servants and soldiers of the powers against Christ were congregated about that fire. It is never safe to warm oneself at the enemies' fire though we see it constantly being done, Matt. 6:13; Ps. 1:1.

3. "I Know Not This Man," vv. 65-72. While at the fire, a serving maid looking at Peter said, "Thou also wast with the Nazarene, even Jesus." Immediately and without any seeming hesitancy Peter denied, and declared his ignorance both of the man and of understanding what she said. Peter did not sympathize with what was being done to Jesus, but at heart he was not brave enough to separate himself from the enemies of Jesus thereby to draw upon himself some sort of censure or condemnation. Thus conforming to the world about him made it easy for Peter to utter his first note of denial. Having done so he passed on into the porch and heard the first crowing of the cock. The apparent contradiction between Mark and the other writers over the question of the number of denials seems to be solved by John 18:25, where reference is made to several who spoke at the same time. Doubtless the words of the first maid are reinforced by those of another on the second occasion; they both brought an accusation against him.

Speech Betrayed Peter. This second maid addressing the onlooking spectators said, "This is one of them," and again Peter denies the accusation. He had escaped one predicament only to be plunged into another and perhaps more dangerous one. To deny afresh seemed to be the only way of escape, James 4:4; 1 Cor. 15:33 R. V. A few words of a serving maid filled Peter with dismay but a second denial did not deliver him from his predicament. After a little those standing with him declared he must be one of the followers of Jesus, for his speech betrayed him to be a Galilean. Then Peter touched the bottom, for he accompanied his denial with curses and oaths. One of the principal uses of profanity is to emphasize a lie and the larger the lie the more profane the profanity. Again he hears the cock crow. Mark says nothing about the look of the master and seems to associate Peter's weeping chiefly with the effect produced on his memory by what the master had said. The memory of those words banished Peter's disloyalty and cowardice, filled him with remorse and shame and turned him to tears of bitterness and repentance. The memory of his own act and the evident dashing of his Messianic hopes of Jesus, plunged him into the depths of despair.

From his high and exalted state of mind, his high hopes as to Jesus, he sees himself a traitor and Jesus about to be crushed by the hand of man. Peter was passionately devoted to Jesus and had felt that he could go with him to the limit. Once before at Caesarea-Philippi Peter had been warned. He had been mystified by what Jesus said about the cross and had protested. He had high and noble aspirations but they carried him beyond the limits of his permission into danger and defeat.

## NEWS and GOSSIP OF WASHINGTON



### Europe Being Closed, the Rich Flock to Washington

WASHINGTON.—War in Europe will increase Washington's winter population. Last winter, in what is known in the light words of the "common people" as the "swell section" of the city, there were scores of vacant houses. In the main these empty residences will be occupied during the coming winter, for already the "to let" signs in most of the staring windows have disappeared.

It is reported that many American families who have been living abroad are to come this year to see the capital of their country, for which some of them seemingly cared little or nothing until they found that the homeland was about the only place in which their sacred necks and still more sacred pocketbooks were safe. There are a good many rich Americans who go to Europe to spend the winter, or at any rate a part of it. Some of these this year, it is known, are to come to Washington, and their numbers, added to those of the hitherto more or less permanent dwellers in Europe, will come pretty near filling all of Washington's houses in which the visitors would care to live.

There were twice as many vacant houses facing the avenues and streets of wealth last winter than there were the winter before. Why? The reason is a curious one, but that it is the right one cannot be doubted. There are more rich Republicans in the United States than there are rich Democrats. Many of these rich Republicans have retired from business. Under Republican administrations they came to Washington in large numbers to spend their money.

### Banker Ailes Has Chance to Get Rich on Snakes

MILTON A. AILES, vice-president of the Riggs National bank, has had fresh opportunity for fortune thrust upon him. Heretofore he has pursued the jade with marked success. But it remained for his casual recital of a snake story to bring him an unexpected chance for wealth beyond the dreams of avarice.

Mr. Ailes is in receipt of a letter from Forrest W. Brown, an attorney at law in Charlestown, W. Va., in which is laid down the tentative plan for the accumulation of vast riches, the establishment of a rattlesnake farm. Mr. Brown writes:

"I tried a case two or three years ago in Morgan county, involving the title to several thousand acres of land, which the witness described as not being worth anything except to raise rattlesnakes on. I succeeded in getting a judgment in favor of my client. Then an old friend of mine inserted in a New York paper a communication in which he said that I had acquired a large tract of land in Morgan county, and had organized a corporation for the purpose of raising rattlesnakes."

This, according to Mr. Brown, was the beginning. Many letters followed from all quarters. Exporting companies in New York and New Jersey wanted to make arrangements to take all the rattlesnake skins that could be furnished. They would take them, in case Mr. Brown lacked the facilities. The skins were wanted for export trade to Paris and London.

"I had letters from a number of friends," continues Mr. Brown, "stating that they wanted me to reserve large blocks of stock for them. I think that if I had taken all these offers I would have had \$1,000,000,000 worth of stock in the enterprise by now. But it all failed because I could not find a general manager. Kindly write and tell me whether you will accept, so that the great enterprise can be inaugurated and continued with success."

When asked as to his intentions, Mr. Ailes spoke regretfully of the press of engagements in other fields of endeavor. He said, however, that it required no fertile imagination to grasp the immense possibilities in the plan. In fact, he was of the opinion that it beat Col. Mulberry Sellers' eyewater scheme all hollow. With the eyewater there was a natural limit, dependent upon the exact number of ophthalmic Chinamen. In the case of the rattlesnakes, however, it was altogether different. There was the skin, to begin with, following which were various by-products almost too numerous to mention. Rattles for babies was one that occurred offhand.

### No More Persons Will Be Interred in This Tomb

A QUAIN and curious old family tomb, built according to the custom prevalent in portions of the South early in the last century, is to be found on the old Patterson estate, in the northeast section of the city, and adjoining the Gallaudet college. It is constructed of solid granite blocks, almost square in shape, and surmounted by an arched roof set off by a heavy projecting cornice, resembling somewhat those used by the ancient Egyptians at Luxor and Karnak. An ivy vine, with thick roots and branches, nearly covers the sides and roof of the tomb, while the immediate surroundings are so heavily grown with deep underbrush and trees that it is almost impossible to see the vault before actually reaching it. Attention was in recent years directed to the tomb by the request of Francis Winslow, a trustee of the Patterson estate, made to the health board of the district, for information relative to the burial laws governing the use of such vaults. Mr. Winslow stated that no interments had been made in the tomb in many years, and that, with one possible exception, none of the descendants of the Patterson family desired to be interred within the place. In view of the possible application for interment within the vault, Mr. Winslow requested information as to whether the health department would permit it.



As a result of the request, Health Officer Woodward had the records of his office searched, but nothing concerning the old tomb could be found. The question was referred to the city solicitor, who replied, in an opinion, stating that under the new code no person could be buried in any grounds except those known as private or public burial grounds, or such as may be so designated in the future by the district commissioners.

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### Uncle Sam's Money Factory Is Best in the World

UNCLE SAM'S great money factory is one of the wonderful sights of the world. Housed in a brand new building 580 feet long and with four wings each 285 feet deep, it takes 32,840 panes of glass to admit light to its four stories. The structure of the bureau of engraving and printing is built of Indiana limestone and it presents to the shining Potomac, which it faces, a row of columns on the front as imposing as those on the east side of the treasury.

This probably is the finest manufacturing plant in the world in point of scientific equipment to conserve the health and comfort of its inhabitants. The chiefs of divisions say that the records show 80 per cent less sickness in the new than in the old building. The whole plant is virtually the creation of Director Joseph E. Ralph, who was determined that in the equipment and operation of the bureau of engraving and printing the United States should lead the world in welfare work.

The European war hit the bureau of engraving and printing as hard as any other American establishment. Its normal output of bank notes was 40,000 sheets a day and it is now turning out 300,000 sheets of four notes to the sheet. In addition to this currency its normal output of silver certificates and gold notes was 225,000. It is now printing 310,000. The moment war was declared Director Ralph jumped to New York, Philadelphia and other places and bought up all the imported dyes in the country suitable for use in coloring inks.

He also cleaned out the market in Sheffield steel, which must be imported from England to make the costly dies from which the money and stamps of the people are printed. The director has introduced in the bureau the use of cyanide of potassium for hardening "hot steel," as this comes from Germany he laid in a stock of 15 tons, or enough to poison all the armies of Europe.

