EFFICIENT FARMING

Plowing For Profit.

A tractor built strong enough to withstand the heavy stresses and strains consequent upon field work can do a good job of plowing by hitching it to several ordinary horse gangs These, however, do not give as good satisfaction as the special tractor plow, since they are not so compact in construction, are not so easily handled, and are not so completely under the control of the operator.

Personally, I have in time past used two types of tractors. One of these is 45 horsepower, the other 30 horsepower. I have used the latter size the past two seasons.

This engine is designed for general field work on small or large farms. I have been in the habit of pulling from three to six 14-inch plows. The tractor handles these very successfully to a depth of eight inches in all kinds of soil. I find from experience that this engine will use from two to two and one-half gallons of fuel to the acre, making the cost of operation quite low.

I find that one man with this tractor and the regular tractor plow is able to average from 10 to 15 acres a day. Two men will average from 15 to 20 acres a day. In one instance two men plowed 23 acres in 10 hours. I have found that this engine is able to plow when the ground is in fit condition to be worked at all.

There are many advantages gained by using such an outfit. The operator is able to turn off several times the work he could with a team, and does his plowing in a short time when the ground is in the best condition. This one thing alone should add materially to the productiveness of the field. I also find it quite practical to attach a harrow behind the plow so that the ground is harrowed when still moist, putting it in ideal condition to conserve the moisture.

These same general facts hold true when one is using an engine for disking, harrowing, or harvesting. I do all these things with the tractor.

Last spring, after the rush of plowing was over, a man living some ten miles away sent word that he had 65 acres of sod which he would like to have me plow so he could plant corn. He offered me $1.50 an acre and furnished the fuel and a man to help.

Before this job was done a neighbor of his said he had 20 acres of stubble land that had been so wet he could not get it plowed. It was reasonably dry now, and, as his men were all busy, he would like to have me plow it. The day we were plowing, the work looked so well to him that he decided to have a 30-acre field of sod plowed for the same purpose.

The result was that from these jobs I netted enough to go a good way toward paying the season's wages of the engine man. Since then the road boss has asked me to grade much of the road, and others have spoken for considerable plowing.

Feeding Breeding Swine.

"Economical production" should be the watchword of every producer, whether it be of pork, beef or mutton. With mill feeds at the prices prevailing to-day and the prospect of an increase in price of some of the more essential feeds it behooves the producer to study very carefully the feeding problem and adopt any method that will tend to give him the cheapest production.

All too often has the breeding herd on the average farm cost from one-third to one-half more than it should have to summer them, which, of course, lessens the profit to be realized from such a herd. It has been shown that a herd of brood sows can be carried through the summer in a good, thriving condition and raise good litters on pasturage and not cost over half as much as though they had been housed all summer and fed on mill feeds. Moreover, the sows were more healthy and farrowed litters that were more robust. And the mortality was much lower than among those sows kept inside all summer.

For "economical production" then, the brood sow should live out all summer in the open on uncontaminated soil, grazing on some succulent pasturage, thereby developing bone, muscle and constitution. The average grasses do not supply the most satisfactory pasture for swine, yet they are better than keeping them in the house. Among the most suitable are rape or a legume such as clover or alfalfa, if it can be successfully grown. Peas, oats and vetches also make excellent pasture for swine. Small fields of any of those named can be sown. Allow the swine to go in just for a short time at first until they become accustomed to it, leaving them a little longer each day until soon they remain all the time and not eat any more than is sufficient for their needs.

While a pig can barely subsist on grass alone the legumes or rape will more than sustain life and so leave for producing increase all the extra feed supplied. Therefore, in addition to the succulent food there should be fed a small allowance of wheat middlings, bran, linseed oil meal or dairy product, thereby supplying the brood sow with the muscle and bone-forming material that is essential. This should not constitute more than about one-third of the ration of concentrates. The remainder of the carbohydrates can be supplied with an addition of grain, such as corn, oats or barley.

The daily allowance of concentrates should be just sufficient to keep the sow in a good, thriving condition, but not sufficient to make them satisfied. Otherwise they will not forage very much, but become lazy and the consequences are they will idle in a shady nook or under a tree.

No one can state definitely the amount to feed a pig. The feeder himself must be the judge. Study carefully the individual; regulate the extra feed given just to keep the animal thriving, yet actually foraging to appease its hunger. In this way a herd of brood sows can be brought through the summer very cheaply and in a much healthier condition than in any other way.

Sheep Notes

Sheep return a greater profit for every dollar invested than any other class of live stock. None of the disadvantages, the most important of which are dogs, parasites and disease, should discourage the flockmaster. Proper care and management will control and largely eliminate these troubles.

Sheep produce two cash crops a year —wool in the spring and lambs in the fall. They can be grown and maintained upon a smaller percentage of roughage and a smaller percentage of grain than any other class of live stock. They will clean up the weeds from the farm and convert other rough feeds into a marketable product. As a source of fresh meat, which is wholesome in character and flavor, a flock of sheep is the best. This fresh meat is the most healthful class of meat because fewer sheep are condemned than any other class of live stock.

Poultry

It is just as essential to cull the pullets before they mature as after they have started laying. In the average flock of young chickens about one-fourth of the females are not worth keeping as layers. Most of these will lay at some time or other, of course, but their laying will not prove profitable.

If they are kept with the prolific layers these culls lower the flock production to a level that scarcely meets the feed bill. Obviously, it is economy to get rid of them as soon as they can be determined as unfit.

Inspect the young stock from time to time during the summer months and discard all birds that do not show promise of maturing into well-developed, vigorous pullets by the first of October. Runts, cripples, mental defectives—there are such in poultrydom—and specimens in poor health should be segregated and prepared as table poultry. They represent an investment. Salvage as much of this investment now as possible. Don't throw good money after bad in the hope that the culls will come around later. Very few do.

Stop a Distance From Train.

Why do you do it?

When you see a train coming and you know you can't possibly make the crossing and you don't intend to attempt it—why don't you immediately slow down and relieve the engineer of the horrid feeling that his train is about to hurl you into eternity?

You don't realize what a terrible strain you put on that man in the cab when he sees you dashing up toward the crossing ahead of his train, not knowing whether you will try to make it or not.

There he is in his cab, and knows he can't stop his engine. There you are speeding in your car to the crossing just ahead. You know you are going to stop just at the edge of the track and look up and laugh just as the train whizzes past. It's a joke, maybe, to you. To him it's a few seconds of the most intense agony.

Things Worth While.

'Tis a joy to serve when serving means
The doing of things worth while,
Of giving the best that in you is—
The going "the second mile";
The heroic thing, the job that counts,
The man-sized task gives a zest
To the work in hand, and men respond
And give of their very best.

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Maybe You Can Sell It.

Perhaps you have something lying around the farm, long gone into the discard, which would be valuable to your neighbor. This was brought forcibly to my notice not long ago by an unusual incident.

George Brown was needing money —not for the first time, it is true; but the only time when the snug little bank account could not meet requirements. Sickness had cut into it considerably the previous months, and the market prices on live stock were now so low that he had not believed it would pay him to open up the corncrib and start feeding operations. Consequently he was broke. The need at the time was only $35, but it had to be raised within a week, and it was an unfailing rule in the Brown household that accounts were not allowed to "run over."

Brown sat down one evening to think it over. His wife usually shared such difficulties with him, but this night she was very busy. A rummage sale was to be held soon for the Red Cross, and she was scouring the house from cellar to attic in search of stray articles. Consequently the man of the house was doing his thinking alone.

Suddenly an idea struck him. He would have a rummage sale, too, only on a different plan. Next morning he started out, first going to the woodlot, then to the barn and workshop, gathering up things here and there.

At the end of the week Brown itemized the following articles which he had picked up and sold:

One discarded mower	$10.00
Straps and rings from worn-out harness	5.00
50 posts at 25c	12.50
Woven wire	2.00
50 lbs. scrap rubber at 9c	4.50
Chains and hooks	1.50
Parts from worn-out binder	8.00
Total	$43.00

Everything except the posts had been consigned to the junk pile. The mower was needed by Smith to repair one that he had. The wire just enclosed neighbor Jones's hog-lot, and so on down the list.

Brown not only relieved his own difficulty, but those of his neighbors as well. Perhaps you wouldn't be able to find as much as he did, but it might be a good plan to take a look around the next rainy day. It may surprise you how many things you can dig up.

Bedtime Stories

Service.

"Hello!" called the tall pine, "Hello, brother!"

The big rustic seat under the tree stirred faintly, then after assuring itself that no one was about, sighed, "Hello, Captain!"

"Glad they put you so close to me. We can have some great old talks this summer. Where have you been since I saw you last?"

"Sun parlor, and all of the children sat on me every afternoon when we had tea—played I was a ship, too!"

"You are a useful fellow!" whistled the pine tree softly.

"I know," mourned the bench, "but it is hard to be twisted into this shape —to have no green needles and never to hear the birds singing. Now you, how free your life is!"

"The winds were very rough last winter, brother. I must stand here with the other trees and protect the house. Each of us must serve—you at your post, I at mine! Tell me something of the house news. How are the rest of my brothers faring?" The pine wood seat cheered up a bit at this and began talking of all the furniture it knew in the house; of the people, the music and the life there.

"I am fortunate to be set out every summer, I suppose. Now some of the others would enjoy this breeze! I can almost fancy myself a tree again!" finished the rustic seat meditatively.

"You are a very handsome piece!" The pine tree swayed sociably overhead—"and I daresay you know heaps more than I do—why, I'm a regular farmer!" So the big tree talked on and on till the seat became vastly proud and comforted with its station in life. But it is hard for the furniture people sometimes, don't you think? They must miss the big outdoors.

But, as the pine tree says, all must serve, some at one post, some at another. And people, like trees, serve in different ways. Some must be bent and twisted and changed for their work; some others, those who work in the open, the farmers and foresters and lumbermen, the sailors and soldiers and engineers, still retain their freedom like the uncut trees. And I suppose we might call the trees serving in the open the countrymen and those which have been cut and fashioned into furniture and houses the townsmen. And were I a tree, of course, I would prefer being a countryman, but if my post was indoors, well, I guess I should serve cheerfully there, too.

A Tablecloth Mend.

If a worn place in a tablecloth has been allowed to develop into a good-sized hole, spread the cloth on the table and tack over the hole a piece of plain Brussels net. Then darn through this with linen ravellings of the same fineness as the cloth.

A large piece of cloth dipped in salt and water will clean coconut matting.

The Sunday School

INTERNATIONAL LESSON SEPTEMBER 7.

The Kingdom of God—Matt. 6:10; 13: 31-33, 44-50; 18:2, 3; Luke 17:20,21; 2 Cor. 10:3-5. Gold. Text, Matt. 6:33.

Prayer for the Kingdom. In Matt. 6: 10 is the two-fold petition, "Thy kingdom come," and "Thy will be done as in heaven so on earth." For the kingdom means simply doing the will of God. That must include also seeking to know what God's will is and endeavoring to make it supreme in all things. The one who prays for the coming of the kingdom, therefore, will also pray for light and understanding, that he may know its character and its operation. And he will seek also to have some part in the realization of his prayer, in the bringing in of Christ's universal reign.

Parables of the Kingdom. In Matt. 13 there are seven parables of the kingdom: the Sower, the Tares, the Mustard Seed, the Leaven, the Hid Treasure, the Pearl of Great Price, and the Net. They are each and every one gems of teaching. The truth does not lie on the surface, but becomes clear to the one who seeks the deeper meaning. Two of the parables are interpreted by Jesus to his inquiring disciples (vv. 10-23 and 36-43), for, He said to them, "Unto you it is given to know the mysteries of the kingdom of heaven." The meaning of the parable, its hidden truth, its spiritual significance, is unfolded to them because they are sincere and earnest inquirers. They want, with all their heart and soul, to do the will of God, and the will of God is revealed to them in these inimitable parables.

The parable of the Mustard seed (vv. 31-32) represents the kingdom of God as growing in the world from a small beginning to a great consummation. The mustard plant (Sinapis nigra) grows wild in Palestine, but is sometimes cultivated, and in the gardens "reaches a great size, being often from ten to twelve feet in height." The birds are very fond of its small seeds which it bears in great abundance. So, like the tiny seed, will the kingdom grow in the hearts of men, in human society, and among the nations, until it dominates all other forces and bestows its benefits upon all men. So also are the precepts and laws of the kingdom like leaven, working silently and yet mightily for the transforming and renewing of the world (v. 33).

This new order of the kingdom, with its rule of justice and righteousness, of peace and good will, under the supremacy of love, is a treasure indeed, for which a man might well part with all his possessions. It is "a pearl of great price" (vv. 45-46). But it is also like a net which gathers of every kind, both bad and good (vv. 47-50).

This last fact regarding the kingdom of God in the world, or the church as the visibly constituted and organized force of the kingdom, has not been sufficiently recognized or understood. The gospel throws the door wide open both in Christian and in non-Christian lands, and many respond to its invitation. Multitudes of widely varying character and disposition flock into the church. The leaven of the truth is working, but the mass is not immediately leavened. The process goes on through the ages. In the individual character elements of evil still remain along with the good, and in the society and offices of the church evil men often find a place. The church, at the best, is made up of imperfect people. Who shall draw the line and make the separation between good and bad? Sometimes the distinction is clear; very often it is not clear. To root up the tares might be to root up the wheat also. See vv. 29, 30, 37-43.

The ideal of the kingdom is a perfect order, both in the individual life and in society. That is what all Christian men and women labor for and pray for continually. It is that they may do God's will perfectly in all the duties and relations of life. It is to love the Lord our God with all the heart, and to love our neighbor as ourself. This is the standard which must never be lowered, the high attainment of Christ-likeness after which we are continually striving. But we must recognize, sadly indeed and shamefacedly, the evil that is still present with us, fight it as best we may, knowing that in the end judgment is sure and the good will be triumphant.

The Weapons of the Kingdom.—In one remarkable passage (Luke 17: 20-21) Jesus declares that "the kingdom of God cometh not with observation," that is not in visible power and splendor. It is "within you," or "in the midst of you," He said. With this harmonizes St. Paul's saying in II. Cor. 10: 3-5, that "the weapons of our warfare are not of the flesh." Nevertheless the weapons are mighty. They are spiritual forces working like the life that is in the seed and like the leaven in the meal, destroying the evil, reviving the dead, transforming character, quickening and confirming faith, and building a new world, a world in which heaven and earth will be joined in full and loving obedience to God and in fellowship with our Lord and Saviour Jesus Christ.

The Handy Farm Home Kitchen

For the farm woman who can do the principal part of her housework in the morning, a kitchen facing the west is desirable, for it is cool and shaded in the summer forenoons. On the farm where a hearty supper must be cooked for workmen during the busy summer months, an east or northeast exposure affords protection from the intense heat of the afternoons. This is also a convenient arrangement where the dining room is in the southeast corner.

The kitchen must, of course, be next to the dining room, but if possible, a direct view from the dining room into the kitchen should be avoided. This may be arranged by placing a door near the corner of the dining room and hinged on the side away from the corner, so that the opened door forms a partial screen.

Since the kitchen is a workshop its lighting should be of the very best. At least three windows should be provided and if the arrangement of the house permits, four will be none too many. The windows should be placed on at least two sides of the room, and should be built high enough to permit a sink or work table to be placed under them.

The writer has in mind a desirable ten by twelve kitchen. The kitchen has a southwest exposure. The walls are of hard plaster painted light gray, with the ceiling a very pale gray. The woodwork is finished with several coats of gray enamel, slightly darker than the wall. The curved edges on casings and baseboard are especially advisable, being easily kept in good condition. The furniture, with the exception of the stove, sink, stool and tray wagon, is built in and is finished with the gray enamel to match the rest of the woodwork.

The window shades match the painting of the house on the outside and are white inside. Dainty white voile curtains add to the attractiveness of the room and are easily laundered. Electric light is used for artificial lighting, there being one light with reflector in the centre of the ceiling and the other light conveniently close to the stove.

On the west wall there is a sink with two drain boards. This sink is cast all in one piece, and the back extends the full length of sink and drain boards. Joining the drain boards are work table shelves of enameled steel. These extend to the cupboard on the north side and the waste chute on the south side. Two windows over the sink admit good light. At each side of the windows is a cupboard reaching to the ceiling. Shelves, the width of the cupboard, extend from the windows to the outer edges of the cupboards. In the southwest corner, a waste chute is very conveniently placed.

A south window makes good light over the white enameled table, with cupboards above, at each side of the window. A flour bin is built under the table at the left side. This table extends to the waste chute in the southwest corner and the stove is at the left of the table. The stove is a good range capable of burning wood or coal. There is a copper hood finished in gray enamel to match kitchen over stove to carry off odors. Between stove and east corner is a built-in utensil cupboard, to hold utensils which will be used at the stove. On the east wall, near the utensil closet, is the outside door, with the upper third of glass, leading to the entry and also to the cellar.

Between this door and the north wall is a built-in refrigerator which is arranged so that the ice may be put in from the entry. The refrigerator is of good height, making it possible to use it without stooping. The space between the refrigerator and the north wall is utilized as a closet for cleaning equipment and is long enough to hold long-handled brushes, brooms and mops.

The north side is next to the dining room. Near the east wall is placed the swinging door into the dining room. The space between this door and the west wall is filled with cupboards built to the ceiling. These are used for serving and there are three doors opening into the dining room from the back of the cupboards. This makes the serving of the meal a much easier matter, as the different courses can be placed on the shelf at the beginning of the meal and conveniently reached at the proper time without returning to the kitchen. The shelf over the drawers in the lower part of the supboard is finished with white enameled steel and is used as a work table. Gray and blue linoleum in small block pattern is used on the floor. Stools are painted gray.

Of course, we can't have all of these conveniences for our kitchens but all of us can have some of them, and some of us can have all of them. And anyway, we can all plan on getting them one at a time and begin to save our pennies for some of the things which make life easier, and, as a result, make us happier.

There is the kitchen cabinet, for instance. How many steps do you suppose you would save if you had everything you needed to bake with in one cupboard, to say nothing of having the moulding board and tins right there,too? You could probably add several pounds to your weight if you didn't need to trot to the cupboard on the north wall for the spices and into the pantry to get the flour and back into the sink cupboard for the tins, and then remember you forgot to bring the moulding board and rolling pin out of the pantry when you got the flour. You can see in the cabinet the flour bin on one side, the sugar bin on the other, and the spices are all inside those little top doors, in neatly labeled jars. The moulding board slides into place under that porcelain top, or you could very well use the same top as a board.

Then, there's your shiny white enameled table right at hand on which to set your finished products, either before or after they are baked; or, better still, right beside it is your tea wagon, on which you can pile the tins of cookies and wheel them to the oven, and, after baking, load them up again and wheel them into the pantry to cool. It is an even bet which is the greatest step-saver, the cabinet or the tea wagon. Just think of putting everything for the dinner table on that wagon and wheeling it into the dining room all at once instead of making a dozen or more trips back and forth and forth and back, and then discovering, after all are seated, that you must jump up and make another journey after a forgotten article. By all means buy a tea wagon if you can.

Rosa in the Garden.

Rosa's plucking roses in the garden
all the day,
She tears the dewey petals and strews
them on the way.
And when I beg the reason of her
wantonness to tell,
She says she tears the roses "is to
find where is the smell."
Oh! Rosa's plucking roses in the garden of my heart,
She spies the choicest blossoms and
pulls them all apart.
Her eyes just brim with twinkles like
the laughing stars above
As she says she "is looking to find
where is the love."

New tinware has a taste, and should be rubbed with lard and baked before using.

Scatter salt on a carpet when sweeping and you will not only find that it has a cleansing effect but it also keeps away moths.

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