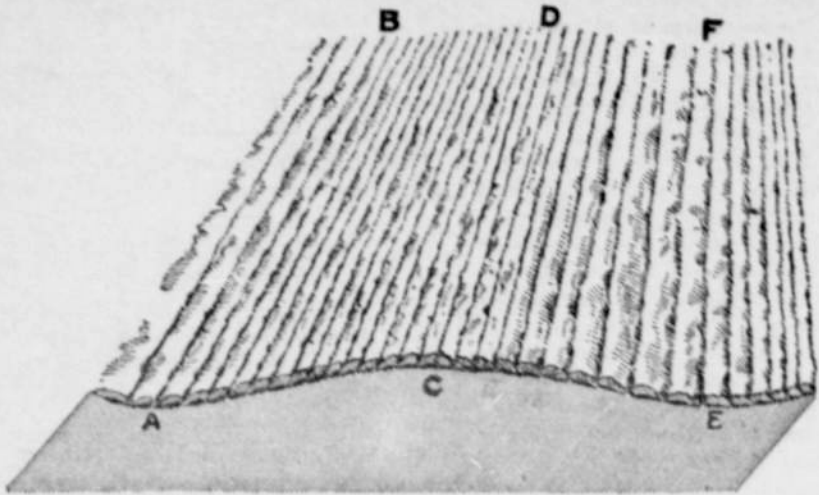


PRACTICAL SUGGESTIONS ABOUT PLOWING



Plowing in Relation to Drainage.

(By O. M. OLSON.)

The depth at which land should be plowed depends much upon the season of the year, the kind of soil and the physical condition of the subsoil. Fall plowing, except for fall-grown grain, should invariably be deeper than spring plowing, as there is more time for it to become sufficiently settled and compacted. Whenever land is plowed quite deeply, and the climatic conditions do not thoroughly settle the furrows, it should be thoroughly worked before it is planted.

Heavy soils need to be plowed deeper than the lighter types of soils. Such soils usually have quite compact subsoils, and they are benefited by being brought to the surface. It is also a benefit to heavy soils to bury the vegetable matter at a good depth, as this will assist in keeping the subsoil from becoming too compact.

Lighter soils are very much the opposite. Their subsoils are usually not too compact, and it is better to have the vegetable matter mixed with the surface soil. Deep plowing of such soils has a tendency to make them too loose, and care should be taken to thoroughly compact them before they are planted to crops.

Plowing land continuously at the same depth every time has a tendency

to form a hard, compact layer in the sub-soil at that depth. This is an undesirable condition, and can usually be avoided by varying the depth slightly from year to year. New land, when first brought under the plow, should not be plowed too deeply. While it may be desirable to ultimately have a furrow six or seven inches in depth, it should be brought about gradually, by plowing a half-inch or so deeper every year.

A method of draining fields which has proved satisfactory and inexpensive is "mging the land while plowing.

The plow is started in the middle where two furrows are plowed against each other. By turning the horses to the right when making the turns at C and D, the dead furrows will be located at A and B and E and F. By continuing this system a series of years, the ditches are made deeper year by year. No ridge is formed on the sides of the ditch. By commencing to plow in this way, and by varying the back furrows one year a little to the right of C and D, and another year a little to the left, the dead furrows will be made broad rather than deep, making the fields gently undulate instead of being cut up by deep ditches and narrow high ridges.

BEST FARM BUILDINGS

Too Little Thought and Study Given to Details.

Not Generally Understood That Circular Structure Is Much Stronger Than Rectangular Form—Cost of Material Is Less.

(By W. J. FRAZER.)

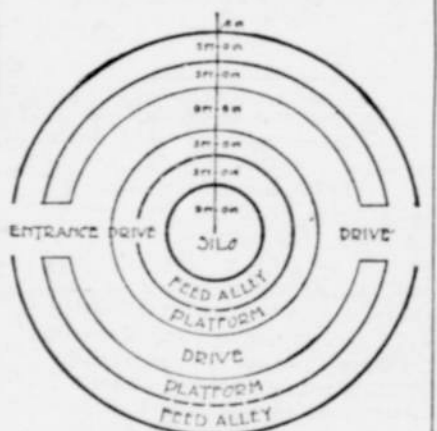
The planning, construction, and arrangement of farm buildings do not usually receive the thought and study these subjects warrant. How many dairymen have compared a circular, 40-cow barn with the common rectangular building containing the same area? How many understand that the circular structure is much the stronger; that the rectangular form requires 22 per cent more wall and foundation to enclose the same space; and that the cost of material is from 34 to 58 per cent more for the rectangular building?

In a community in which everyone is engaged in the same occupation, one person is likely to copy from his neighbor without apparently giving a thought as to whether or not there is a better way.

In comparing a 60-foot round barn with a rectangular barn of the same area, the two barns should afford the cows the same amount of space on the platform. Allowing each cow in the 60-foot round barn three feet six inches in width at the rear of the platform, it will accommodate 40 cows and leave space for two passageways. But in a rectangular barn, only three feet four inches of platform space need be allowed for each cow, and the 75%

contains space in the center for a silo 18 feet in diameter.

Owing to the fact that a silo is a necessity for the most economical production of milk, a barn is not complete for a dairyman's purpose unless it includes a silo with capacity to store sufficient silage for the herd. In the case of the round barn, the silo is the most economically built inside, but in the rectangular form would cause a waste of space, and for that reason is best erected outside. There-



Arrangement of Cow Stable for Two Rows of Cows Tailed Together—The Barn Is Cleaned by Driving Around Behind the Cows.

fore, in comparing a round dairy barn with a rectangular dairy barn, silo should be included. The smaller surface on the outside wall of the round barn requires less paint and makes a proportional saving in keeping the round barn painted in after years.

TAKE CARE OF THE MANURE

Shallow Concrete Pit Affords Practical Means of Taking Care of Soil Fertilizer.

The shallow concrete manure pit out of doors is a practical means of taking care of manure and is to be recommended.

Where a manure shed is used it should be so arranged that stock may have free access thereto. In this way the manure will be kept well packed down by the animals tramping over it, and the danger of loss due to burning and excessive fermentation very materially decreased.

Barnyard manure, however, is not a balanced fertilizer for ordinary farm crops; it is relatively high in nitrogen and potash and correspondingly low in phosphorus.

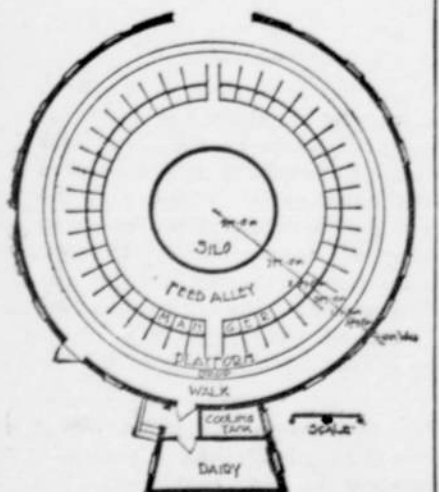
Experiments conducted by the Indiana station show that most clay soils of the state are deficient in that same element, phosphorus. By adding some phosphatic material to the manure as it is produced, we are able, not only to supply the lacking element, phosphorus, but also to fix the nitrogen, to some extent, and thus prevent its escape in the form of ammonia gas.

Maintenance of Sows.

In the maintenance of the broodsows we have our best opportunity to make use of pasturage, waste feeds, fallen fruits, etc. Not that these things are sufficient, but because roughage, range, bulk, succulence and variety are good for the sows.

Work Together Nicely.

The hog and the dairy cow work nicely together.



Showing How This 60-Foot Barn May Be Arranged to Accommodate 40 Cows in Stalls—To Supply This Sized Herd and the Necessary Young Stock With Silage for Eight Months Would Require a 370-Ton Silo, or One 18 Feet in Diameter and 56 Feet Deep; With a Seven-Foot Feed Alley and a 2 1/2-Foot Manger, the Circle at the Stanchions Would Be 38 Feet in Diameter, or 119 1-3 Feet in Circumference; Allowing 4 1/2 feet for Two Passage Ways, the Stalls Would Be 2 Feet 10 1/2 Inches Wide at the Stanchion, and 3 Feet 6 Inches at the Drop.

foot barn, with two three-foot passageways across it for convenience in feeding, will accommodate 42 cows. While the rectangular barn has stall room for two more cows, the round barn

HIS LOVE STORY

MARIE VAN VORST
ILLUSTRATIONS BY RAY WALTERS

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SYNOPSIS.

Le Comte de Sabron, captain of French cavalry, takes to his quarters to raise by hand a motherless Irish terrier pup, and names it Pitchoune. He dines with the Marquise d'Esclignac and meets Miss Julia Redmond, American heiress, who sings for him an English ballad that lingers in his memory. Trying to save Pitchoune's life, he declines a second invitation to dinner because of a "very sick friend." No more invitations come from the Chateau d'Esclignac. Pitchoune, though lame from his accident, thrives and is devoted to his master. Sabron and Pitchoune meet the Marquise and Miss Redmond and after the story of Pitchoune is told Sabron is forgiven and invited to dinner again. Sabron is ordered to Algeria, but is not allowed to take servants or dogs. He is invited to a musicale at the Chateau, where Miss Redmond, hearing that Sabron cannot take Pitchoune with him, offers to take care of the dog during his master's absence.

CHAPTER VII—Continued.

"My dear Julia, my godson, the Duc de Tremont." And Sabron bowed to both the ladies, to the duke, and went away.

This was the picture he might add to his collection: the older woman in her vivid dress, Julia in her simpler gown, and the titled Frenchman bowing over her hand.

When he went out to the front terrace Brunet was there with his horse and Pitchoune was there as well, stiffly waiting at attention.

"Brunet," said the officer to his man, "will you take Pitchoune around to the servants' quarters and give him to Miss Redmond's maid? I am going to leave him here."

"Good, mon Capitaine," said the ordonnance, and whistled to the dog.

Pitchoune sprang toward his master with a short sharp bark. What he understood would be hard to say, but all that he wanted to do was to remain with Sabron. Sabron bent down and stroked him.

"Go, my friend, with Brunet. Go, mon vieux, go," he commanded sternly, and the little dog, trained to obedience as a soldier's dog should be, trotted reluctantly at the heels of the ordonnance, and the soldier threw his leg over the saddle and rode away. He rode regardless of anything but the fact that he was going.

CHAPTER VIII.

Homesick.

Pitchoune was a soldier's dog, born in a stable, of a mother who had been dear to the canteen. Michette had been une vraie vivandiere, a real daughter of the regiment.

Pitchoune was a worthy son. He adored the drums and trumpets. He adored the file. He adored the drills which he was accustomed to watch from a respectable distance. He liked Brunet, and the word had not yet been discovered which would express how he felt toward Monsieur le Capitaine, his master. His muscular little form expressed it in every fiber. His brown eyes looked it until their paths might have melted a heart of iron.

There was nothing picturesque to Pitchoune in the Chateau d'Esclignac or in the charming room to which he was brought. The little dog took a flying tour around it, over sofas and chairs, landing on the window-seat, where he crouched. He was not wicked, but he was perfectly miserable, and the lovely wiles of Julia Redmond and her endearments left him unmoved. He refused meat and drink, was indifferent to the views from the window, to the beautiful view of King Rene's castle, to the tantalizing cat sunning herself against the wall. He flew about like mad, leaving destruction in his wake, tugged at the leash when they took him out for exercise. In short, Pitchoune was a homesick, lovesick little dog, and thereby endeared himself more than ever to his new mistress. She tied a ribbon around his neck, which he promptly chewed off. She tried to feed him with her own fair hands; he held his head high, looked bored and grew thin in the flanks.

"I think Captain de Sabron's little dog is going to die, ma tante," she told her aunt.

"Fiddlesticks, my dear Julia! Keep him tied up until he is accustomed to the place. It won't hurt him to fast; he will eat when he is hungry. I have a note from Robert. He has gone to Monte Carlo."

"Ah!" breathed Miss Redmond indifferently.

She slowly went over to her piano and played a few measures of music that were a torture to Pitchoune, who found these ladylike performances in strong contrast to drums and trumpets. He felt himself as a soldier degraded and could not understand why he should be relegated to a salon and to the mild society of two ladies who did not even know how to pull his ears or roll him over on the rug with their riding boots and spurs. He sat against the window as was his habit, looking watching, yearning.

"Vous avez tort, ma chere," said her aunt, who was working something less than a thousand flowers on her tapestry. "The chance to be a princess and a Tremont does not come twice in a young girl's life, and you know you have only to be reasonable, Julia."

Miss Redmond's fingers wandered,

magnetically drawn by her thoughts, into a song which she played softly through. Pitchoune heard and turned his beautiful head and his soft eyes to her. He knew that tune. Neither drums nor trumpets had played it, but there was no doubt about its being fit for soldiers. He had heard his master sing it, hum it, many times. It had soothed his nerves when he was a sick puppy and it went with many things of the intimate life with his master. He remembered it when he had dozed by the fire and dreamed of chasing cats and barking at Brunet and being a faithful dog all around; he heard again a beloved voice hum it to him. Pitchoune whined and softly jumped down from his seat. He put his forepaws on Miss Redmond's lap. She stopped and caressed him, and he licked her hand.

"That is the first time I have seen that dog show a spark of human gratitude, Julia. He is probably begging you to open the door and let him take a run."

Indeed Pitchoune did go to the door and waited appealingly.

"I think you might trust him out. I think he is tamed," said the Marquise d'Esclignac. "He is a real little savage."

Miss Redmond opened the door and Pitchoune shot out. She watched him tear like mad across the terrace, and scuttle into the woods, as she thought, after a rabbit. He was the color of the fallen leaves and she lost sight of him in the brown and golden brush.

CHAPTER IX.

The Fortunes of War.

Sabron's departure had been delayed on account of a strike at the dockyards of Marseilles. He left Tarascon one lovely day toward the end of January and the old town with its sweetness and its sorrow, fell behind, as he rolled away to brighter suns. A friend from Paris took him to the port in his motor and there Sabron waited some forty-eight hours before he set sail. His boat lay out on the azure water, the brown rocks of the coast behind it. There was not a breeze to stir as he took the tug which was to convey him. He was inclined to dip his fingers in the indigo ocean, sure that he would find them blue. He climbed up the ladder alongside of the vessel, was welcomed by the captain, who knew him, and turned to go below, for he had been suffering from an attack of fever which now and then laid hold of him, ever since his campaign in Morocco.

Therefore, as he went into his cabin, which he did not leave until the steamer touched Algiers, he failed to see the baggage tender pull up and failed to see a sailor climb to the deck with a wet bedraggled thing in his hand that looked like an old fur cap except that it wriggled and w a alive.

"This, mon commandant," said the sailor to the captain, "is the pluckiest little beast I ever saw."

He dropped a small terrier on the deck, who proceeded to shake himself vigorously and bark with apparent delight.

"No sooner had we pushed out from the quay than this little beggar sprang from the pier and began to swim after us. He was so funny that we let him swim for a bit and then we hauled him in. It is evidently a mascot, mon commandant, evidently a sailor dog who has run away to sea."

The captain looked with interest at Pitchoune, who engaged himself in making his toilet and biting after a flea or two which had not been drowned.

"We sailors," said the man saluting, "would like to keep him for luck, mon commandant."

"Take him down then," his superior officer ordered, "and don't let him up among the passengers."

It was a rough voyage. Sabron passed his time saying good-by to France and trying to keep his mind away from the Chateau d'Esclignac, which persisted in haunting his uneasy slumber. In a blaze of sunlight, Algiers, the white city, shone upon them on the morning of the third day and Sabron tried to take a more cheerful view of a soldier's life and fortunes.

He was a soldierly figure and a handsome one as he walked down the gangplank to the shore to be welcomed by fellow officers who were eager to see him, and presently was lost in the little crowd that streamed away from the docks into the white city.

CHAPTER X.

Together Again.

That night after dinner and a cigarette, he strode into the streets to distract his mind with the sight of the oriental city and to fill his ears with the eager cries of the crowd. The lamps flickered. The sky overhead was as blue nearly as in daytime. He walked leisurely toward the native quarter, jostled, as he passed, by men in their brilliant costumes and by a veiled woman or two.

He stopped indifferently before a little cafe, his eyes on a Turkish bazaar

where velvets and scarfs were being sold at double their worth under the light of a flaming yellow lamp. As he stood so, his back to the cafe where a number of the ship's crew were drinking, he heard a short sharp sound that had a sweet familiarity about it and whose individuality made him start with surprise. He could not believe his ears. He heard the bark again and then he was sprung upon by a little body that ran out from between the legs of a sailor who sat drinking his coffee and liquor.

"Gracious heavens!" exclaimed Sabron, thinking that he must be the victim of a hashish dream. "Pitchoune!"

The dog fawned on him and whined, crouched at his feet whining—like a child. Sabron bent and fondled him. The sailor from the table called the dog imperatively, but Pitchoune would have died at his master's feet rather than return. If his throat could have uttered words he would have spoken, but his eyes spoke. They looked as though they were tearful.

"Pitchoune, mon vieux! No, it can't be Pitchoune. But it is Pitchoune!" And Sabron took him up in his arms. The dog tried to lick his face.

"Voyons," said the officer to the marine, who came rolling over to them, "where did you get this dog?"

The young man's voice was imperative and he fixed stern eyes on the sailor, who pulled his forelock and explained.

"He was following me," said Sabron, not without a slight catch in his voice. The body of Pitchoune quivered under his arm. "He is my dog. I think his manner proves it. If you have grown fond of him I am sorry for you, but I think you will have to give him up."

Sabron put his hand in his pocket and turned a little away to be free of the native crowd that, chattering and grinning, amused and curious and



Looking, Watching, Yearning.

eager to participate in any distribution of coin, was gathering around him. He found two gold pieces which he put into the hand of the sailor.

"Thank you for taking care of him. I am at the Royal Hotel." He nodded, and with Pitchoune under his arm pushed his way through the crowd and out of the bazaar.

He could not interview the dog himself, although he listened, amused, to Pitchoune's own manner of speech. He spent the latter part of the evening composing a letter to the minister of war, and although it was short, it must have possessed certain evident and telling qualities, for before he left Algiers proper for the desert, Sabron received a telegram much to the point:

You may keep your dog. I congratulate you on such a faithful companion.
(TO BE CONTINUED.)

Gauge for Measuring Sootfall.

The Pittsburgher who resents the timeworn variations of the soft coal smoke gibes now has his chance to prove that they are unjustified, or remain forever silent. By a new invention it is at present possible to measure the sootfall of any city as accurately as its rain or snowfall may be measured. Already this soot gauge, tried out in England, has proved what the tourist long suspected, that London, with all its yellow fog, has far purer air than the North of England factory cities of Birmingham, Manchester and the like. Not only have Pittsburgh and other slandered American cities the opportunity to whiten their sooted reputations, but the manufacturer, too, may now establish accurately the exact proportion of his contribution to the civic soot; for the new device judges the quality as well as the amount of sootfall, and is quite capable of distinguishing between the factory, furnace and kitchen range.—Literary Digest.

The Boy Who Dreams.

It is a good thing for the farmer boy to have an imagination, says the Prairie Farmer. It is a good thing for him to "dream dreams and see visions." It takes a dreamer to see the transformation that intelligent effort will bring to pass on the old place. It takes a dreamer to see how much more desirable that place will be in ten years than a job in a dry goods store.—Emporia Gazette.

To Remove Paint.

Equal parts of ammonia and turpentine will take paint out of clothing, no matter how hard or dry it is. Saturate spots two or three times, then wash in warm soapsuds.

A Real Source of Health

is the Stomach, but the most reliable barometer of your physical condition is the appetite. If it is poor, you can look for an overworked and overloaded condition of the Stomach, Liver and Bowels, which prevent them from properly performing their daily functions. A trial of

HOSTETTER'S Stomach Bitters

will help Nature restore normal strength and regularity throughout the entire system and thus help you maintain health. Try a bottle today.

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Keep Kids Clean



75c the suit

Levi Strauss & Co., San Francisco

Happy or Brave.

When you cannot be happy, you can be brave. There are things nobody can enjoy especially, aches, pains, disappointments, unkindnesses, and things of that sort. Nobody expects that you boys and girls can be just as happy over your troubles as you are over your blessings. But that does not excuse you for fretting and whimpering, just as soon as things go wrong. If you cannot be happy, you can be brave.

YOUR OWN DRUGGIST WILL TELL YOU Dry Murine Eye Remedy for Red, Weak, Watery Eyes and Irritated Eyelids; No Stinging—Use Eye Comfort. Write for Book of the Eye 12 mail free. Murine Eye Remedy Co., Chicago

Mental Overwork.

In mental overwork the brain cells, being in constant use, are apt to remain alive after work has been abandoned. In this case sleep is prevented. Worry has a like effect on the cerebral cells, and if anything worse.

HOWARD E. HUETON—Amateur and Chemist, Leadville, Colorado. Specimens of Gold, Silver, Lead, El. Gold, Bismuth, Zinc, Gold, Silver or Copper. E. Mailing envelopes a set full price list sent on application. Write for Book of the Eye 12 mail free. Murine Eye Remedy Co., Chicago

Cheap Household Cement.

Plaster of paris and gum arabic in the proportion of four parts plaster of paris to one of gum arabic makes a very good cement for mending china and other articles. The ingredients are mixed in a pulverized form, water added and used at once. If smoothed over with an old knife blade while soft this cement will be glossy and hard as china when hard.

AFTER SUFFERING TWO LONG YEARS

Mrs. Aselin Was Restored to Health by Lydia E. Pinkham's Vegetable Compound.

Minneapolis, Minn.—"After my little one was born I was sick with pains in my sides which the doctors said were caused by inflammation. I suffered a great deal every month and grew very thin. I was under the doctor's care for two long years without any benefit. Finally after repeated suggestions to try it we got Lydia E. Pinkham's Vegetable Compound. After taking the third bottle of the Compound I was able to do my housework and today I am strong and healthy again. I will answer letters if anyone wishes to know about my case."—Mrs. JOSEPH ASELIN, 906 Fourth Avenue, Minneapolis, Minn.



Lydia E. Pinkham's Vegetable Compound, made from native roots and herbs, contains no narcotics or harmful drugs, and today holds the record of being the most successful remedy we know for woman's ills. If you need such a medicine why don't you try it?

If you have the slightest doubt that Lydia E. Pinkham's Vegetable Compound will help you, write to Lydia E. Pinkham Medicine Co. (confidential) Lynn, Mass., for advice. Your letter will be opened, read and answered by a woman, and held in strict confidence.