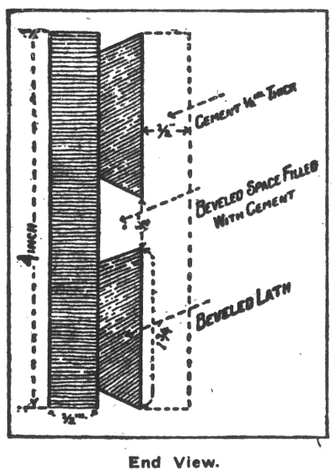
The DAIRY

PLAN FOR BUILDING A SILO

Illustration Shows How Inside Sheeting and Beveled Lath and Cement Are Used.

In response to a query for building a silo 12x28, about 24 feet above ground, Hoard's Dairyman makes the following reply:

One-half inch lumber will give fully as good, if not better, service than inch lumber. The accompanying illustration shows how the inside sheeting and beveled lath and cement are used in a silo of this kind. The 2x4's may be set on the foundation 16 inches from center to center. We like the beveled lath as suggested in the drawing, for it adds strength to the silo.



End View.

We know of some instances where common lath has been used, but it seems to us better to use the lath made from one-half-inch material.

The 2x4's will not need any sort of iron hoops. The inside sheeting and the beveled lath are strong enough to resist all lateral pressure. If inch lumber is used and lath as suggested, it would be well to put on the outside some wooden hoops three feet apart. These hoops may be nailed to the 2x4s.

The capacity of the silo is sufficient for 15 milk cows. We believe that a silo 11 feet in diameter and 30 to 32 feet high would be almost better to construct, for it is necessary to remove about one and one-half to two inches of silage per day, especially in summer, if it is to be kept in good condition.

ROOT CROPS FOR DAIRY COW

Make Valuable Addition to Winter Rations Because They Add to Variety of Feed.

No matter what some people tell you, turnips and other roots make fine milk producing feed. Turnips will not affect the flavor of milk if fed at the right time.

If turnips are fed in large quantities and two or three hours before milking, they are likely to give the milk an unpleasant taste, but if fed directly after milking no flavor whatever will be noticed.

A peck of turnips to each animal per day is sufficient in most cases. A good plan is to feed directly after hay in the early morning, and once a day is often enough.

A little salt scattered over the turnips, which should be chopped in quarters or smaller, add to their palatability.

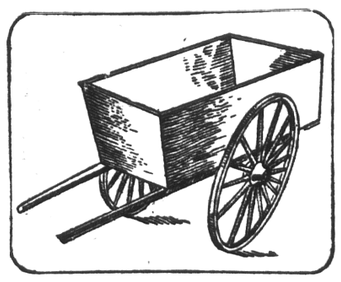
Roots make very valuable addition to the winter ration because they add to the variety of the feed and no animal on the farm appreciates variety more than the dairy cow.

In Wisconsin, Iowa and other western dairy states the root crop is becoming a very important part of the crop of the farm.

CONVENIENT CART FOR MILK

Two Buggy Wheels and Axle Used in Its Construction—Handy for Carrying Fertilizer.

I saw a home-made cart, made from the two wheels and an old axle of a buggy, says a writer in the Rural New



A Handy Milk Cart.

Yorker. It was used to wheel three cans of milk and feed or fertilizers around farm or barn. The illustration shows how it was made.

Silo Is Money Maker.

The dairy farmer who does not build a silo thinks he is justified in following his policy, but the longer he puts it off the less money he will make.

Good Separator.

A good separator, when properly handled, should not leave more than .05 per cent. of fat in the skimmilk. This means that but 1 pound of fat is left to every 200 taken out.

Avoid Germs.

The first few squirts of milk drawn from the udder may have germs in them, as they might get into the ducts. If you are very particular milk these on the ground before milking into the pail.

Get Best Cow.

Like a dairy cow, the best way to get a high-class farm horse is to raise him.

BREEDING STOCK FOR DAIRY

In Selecting Cattle Real Test Must Be Scales and Babcock Test—Conformation of Cow.

Professor W. J. Kennedy of the Iowa station recommends the following in reference to the selection of breeding stock for the dairy:

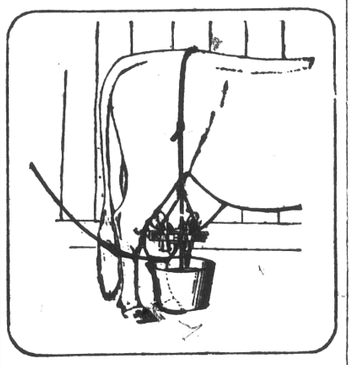
In selecting dairy cattle the real test must be the scales and the Babcock tester. The cow is a machine to convert food into milk, thus she must have a large middle and a strong constitution to insure the best results. She must also have a large udder, large milk wells, large crooked milk veins and good sized teats. Her head should be clean and angular in appearance, with the eyes standing out prominently. The neck should be rather long and lean in appearance. The shoulders pointed, and the backbone rather prominent. The skin should be loose and soft to the touch. In selecting herd bulls, either mature animals which have already demonstrated their worth as sires, or younger animals from high testing dams and sires only should be used. The best and surest results will always follow the use of a mature sire which has sired heifers with good records. A good dairy bull should be kept until he is 12 or 15 years old, in fact as long as he is a sure sire. Real good sires are so rare that when we do find one, he should die only of old age. All breeders of dairy cattle should secure yearly tests on each and every cow in the herd. Shorter tests do not really mean very much. It is the cow that stays by her job that is really valuable.

MILKING MACHINE IS HANDY

Operation Performed by Compression in Device Recently Invented by Wisconsin Man.

The Scientific American in describing a milking machine, recently invented by O. C. Sibilsky of Algoma, Wis., says:

The invention pictured in the illustration in actual use, provides a machine which will cause the milking operation to be performed by compression rather than by suction or stripping; provided a device detachable so as to accommodate it for use in connection with different size cows or



Milking Machine.

those having different size udders; provides an actuator for the milker which is adjustable in acordance with the size of the teats; and provide a milking machine in which the compression cups are formed and operated so as to simulate the form and operation of a person's hand in hand milking.

Keep Calves Well Bedded.

The stomach of the little calf is very sensitive and easily ruined. Nothing will do it quicker than keeping the animal confined in a wet, dirty pen. Clean the calf often and bed it with a liberal supply of dry straw oftener. It is no little labor to keep a stall where several calves run clean and dry, but there is no other way if you want to raise good calves. Eternal vigilance is the price of everything good in the stock line.

Making Stables Comfortable.

Stop the cracks and chinks in the stables. The horses and cows will not get cold outside if it isn't raining, but in the stable, with the wind blowing in through some little hole, they will actually suffer. Get in a warm room and let the cold air from outside reach you through just one little opening if you don't believe it.

Economy in Liberal Feeding.

Economy on the farm, as well as in all other business, is admirable, but economy demands that you get every drop of butter fat possible from every cow. In other words, the greatest economy comes from feeding the cow to her greatest capacity and having a cow which will make the best use of her feed.

DAIRY NOTES

Beef is high, but butter and cream are higher.

Silage may be fed the day after the silo is filled.

Thoughtful dairymen will keep up the milk flow this fall.

Back of many a shortage in the dairy business is a poor sire.

Separating cold milk means that some cream will remain in the skimmilk.

Dirty calf pails are one sign that the calves are not getting care enough.

If the hired man is careful with the cows a few of his faults may be overlooked.

To get rich milk is possible for the average farmer, but it must be through breeding.

To get top prices for farm crops, try selling them to the dairy cow or the shoat.

A good many cow stables resemble hotels. They have both "roomers" and "boarders."

Shade, water and good grass are three essentials for profitable milk production.

It is highly important to feed producing cows some concentrated feeds in connection with pasturage and roughage.

You are making your dairy cows now while the heifer calves are less than a year old. Be liberal with shelter, liberal with all sorts of kindness.

GENERAL INFORMATION CONCERNING PEATY SWAMP SOILS IN ILLINOIS

Corn on Peaty Swamp Land, Momence Field, 1903 Phosphorus on Left, Potassium on Right.

By C. G. HOPKINS, J. E. READHIMER, AND O. S. FISHER, Authors of Bulletin 157, Illinois Experiment Station.

Peaty swamp soils may well be separated arbitrarily into five fairly distinct classes:

1. Soils in which the very peaty material extends to a depth of three or four feet at least and often to much greater depths.

2. Soils with one to three feet of peaty material resting on deep sand.

3. Soils with one to three feet of peaty material resting on rock, usually with some inches of sandy material between the two.

4. Soils with six inches to three feet of peaty material resting on a clayey subsoil.

5. Soils with only a few inches of peaty material resting on sand.

If the soil has one to three feet of very peaty material and this is underlain with a deep subsoil or with sand resting on rock, or if the peaty soil itself is very deep (3 or four feet or more), then the land is almost certainly deficient in potassium, and the chief part of the potassium required to produce crops must always be supplied, either in the form of commercial potassium salts or in farm manure, because of the simple fact that it cannot be furnished by either the soil or subsoil in sufficient quantities for continuous large crops.

As the one to three feet of peaty material is exceedingly rich in organic matter, and is much richer in nitrogen, and usually somewhat better supplied with phosphorus, than the most fertile normal soils in the corn belt, that land is not in need of either of those elements, and probably it will be unnecessary to grow clover or to apply phosphorus on such soils for many years. Indeed, it seems altogether likely that the most profitable system of farming for such soils is almost continuous corn, unless some rotation should become necessary because of corn insects. As farm manure contains about as much nitrogen as potassium, and also some phosphorus, it is better farm practice to use farm manure on sandy land, for example, which is very greatly in need of nitrogen and organic matter, than to use it on this peaty soil which needs only potassium. Ordinarily farm manure contains about eight pounds of potassium in a ton, and some of this is not very readily available, excepting in such kinds as horse manure which decompose quickly.

If one has abundance of farm manure, and does not need to use it all on lighter soils, of course it should be applied to the peaty soils rather than not be used at all; but under the ordinary farm conditions where the supply of farm manure is very limited, it is good practice to purchase commercial potassium for such peaty lands as need it.

As stated above, there are some peaty soils which are underlain with clay subsoils lying from six inches to three feet below the surface. Such subsoils almost invariably contain an abundance of potassium. Some of these are the soils which will ultimately "farm out" to use a phrase local to the Kankakee swamp region, which means that with continued farming the soil gradually improves until it finally becomes a normally fertile soil, even without any special treatment. The time required for this improvement will depend upon the condition and method of management of the soil. The desired result is usually accomplished by getting some of the clayey subsoil with the more peaty top soil. Sometimes this can be done by deeper plowing; sometimes by tramping of live stock where the subsoil is near the surface.

Some soils of this class are temporarily benefited very markedly by even light applications of potassium, either in farm manure (preferably horse manure) or in commercial form. This will furnish sufficient potassium to give the corn a start, and the corn roots will thus be enabled to grow sufficiently to reach the clayey subsoil which will then furnish an abundance of potassium for a large crop. This may last for a year or two only, when it will be found necessary to supply more potassium to the top soil; or, the one or two years' cropping and cultivation may result in compacting of the surface soil, the mixing of the clayey subsoil with the peaty top soil, or the bringing up of sufficient potassium from the subsoil into the top soil by the roots of corn and weeds and the corn stalks (which, it should be remembered, are quite rich in potassium, and which are usually either burned or plowed under) so that no further application of potassium may be necessary. Thus the so-called "farming out" process may be hastened very materially, and with decided profit on some soils, by applying potassium in some form, especially where the peaty top soil is too deep to admit of reaching the clayey subsoil with the plow.

In its original condition this type of peaty land (that is, a peaty top soil underlain with a clay subsoil) contains an abundance of all of the elements of plant food; but the difficulty is that the nitrogen is nearly all in the top soil, while the potassium is very largely in the subsoil (both soil and subsoil commonly contain enough phosphorus) and the chief problem with these particular soils is to bring these elements together in the top soil sufficient for the needs of the growing crop, especially during its earlier growth before its roots reach the lower stratum.

Very satisfactory results have been obtained upon this particular kind of soil, in Ford county, Ill., simply by means of very deep plowing, as on Mr. S. K. Marston's farm in what is called the "Vermilion Swamp" in northern Ford county. A careful examination was made by the experiment station of land in this swamp some years ago. The soil produced very poor crops of corn, but the clayey subsoil was found to be within the reach of the plow, and it was then agreed with Marston that a trial of deep plowing should be made, and the results have been very successful.

There is still another kind of peaty swamp land which must be mentioned. This is land whose soil consists of only a few inches of peaty material, which is underlain by sand to a depth of several feet. We have found quite extensive areas of this type of soil especially in the southeastern part of Kankakee county. The sandy subsoil will usually furnish somewhat more available potassium than the peaty material, and the sand, being near the surface, becomes mixed with the peaty material by plowing and cultivation, so that this soil may produce fair crops for a few years. But after the rather small amount of organic matter becomes reduced by cultivation, this type of soil is but very little different from ordinary sand soil, which is usually very poor in nitrogen and rather low in all the elements of plant food. If the sand contains some clay which is frequently the case, it will be better supplied with potassium than with the other elements. As a rule it is deficient in available potassium, and after a few years of cropping, it also becomes deficient in nitrogen.

Prevents Potatoes Sprouting.

A German publication gives a new method for keeping potatoes from sprouting by placing them on a layer of coke. Dr. Schiller of Brunswick, who has published the method, is of the opinion that the improved ventilation by means of coke is not alone responsible for the result, but believes that it is due to the oxidation of the coke, which, however, is very slow. Coke always contains sulphur, and it is possible that the minute quantities of oxides of carbon and sulphur, which, results from the oxidation, mixing with the air and penetrating among the potatoes, are sufficient to retard sprouting. Potatoes so treated are said to keep in good condition until the following July.

Benefits of Separator.

The introduction of the hand separator has made it possible for the farmer to dispose of his cream at the highest market price and save the wife the weary work of caring for the milk, cream and churning.

VALUABLE POINTS FROM PIGEON LOFT

(By WALTER B. LEUTZ.)

Pigeons in good health are characterized by good plumage, clear eyes and inactivity.

Keep a dish of equal parts of oyster shells, grit and charcoal where the birds can help themselves.

Keep the pigeons tame. Allow no strangers to enter the loft unless necessary, as all disturbances in a way take from the profits.

Whitewash the loft and fixtures often. It kills vermin and keeps the place sanitary. Too much of it cannot be used.

Squabs should be in prime condition for market at the age of four weeks. Dispose of them as near this period as possible.

Pigeons require frequent baths. If it is not possible to have one located permanently supply one three or four times weekly.

New arrivals in the loft should be well dusted with insect powder. Take no chances on filling the flock with vermin.

Time for Laying.

This generally accepted notion is one of the best proofs that poultrymen would rather get their facts from poultry papers than from poultry yards. Given proper treatment pullets will come to laying from October to February just as they get old enough to lay, and the late hatched flocks will begin in December and January as certainly and regularly as the earlier ones will begin in October and November.

Carrying Eggs on Electric Cars.

A Washington poultry dealer has made the discovery that it is a dangerous practice to carry eggs intended for hatching on electric cars without taking precautions to prevent the electric current from killing the germ. Experience has shown that where the receptacle is allowed to rest on the floor of the car 80 per cent. of the eggs are "killed." Moral: Carry the basket on your lap.

BOSTON CHILD KEPT DIGNITY

Matron Meant to Be Kindly, But Youngster Was Not Conversationally Inclined.

This story has been going the rounds of Boston about the ten-year-old son of Director Russell of the Boston opera house.

One evening during an entr'acte at the opera house Master Rusesll was promenading alone in the foyer, in faultlessly evening dress—a very glass of fashion. A Boston matron, seeing that he was lonely, began to make herself "agreeable."

"You are Director Russell's little boy, aren't you?" she asked, with patronizing sweetness.

Master Russell resented this intrusion on his dignity, but his courtly manners were unruffled. "Yes, madam," he replied, with an elaborate bow.

"Where were you born?"

"In France, madam"—slightly more frigid.

"What part?" continued the lady, feeling the conversation well started.

"All of me, madam."

And he bowed and walked away.—Judge.

GOOD DESCRIPTION.

Teacher—Willie, what is a volcano?

Willie—Why-er-er, it's like a furnace full of Roman candles wid de door open.

HANDS BURNING, ITCHING

905 Lowell Place, Chicago, Ill.—"The trouble began by my hands burning and itching and I rubbed and scratched them till one day I saw little red sores coming out. My hands were disfigured and swollen, and troubled me so that I could not sleep. They were cracked and when the small sores broke a white matter would come out. I could not do any hard work; if I did the sores would come out worse. For two years nobody could cure my eczema, until one day I thought I would try the Cuticura Soap and Ointment. I used warm water with the Cuticura Soap and after that I put the Cuticura Ointment on my hands twice a day for about five or six months when I was cured. (Signed) Sam Marcus, Nov. 28, 1911.

Cuticura Soap and Ointment sold throughout the world. Sample of each free, with 32-p. Skin Book. Address post-card "Cuticura, Dept. L, Boston." Adv.

Why He Wept.

At a reception one night, says the Woman's Home Companion, a loud-voiced young man was invited to sing. Desultory applause followed, and he responded with a vociferous rendering of "My Old Kentucky Home." The hostess was passing among her guests, beaming at the success of her entertainment and sure that everybody was having a good time, when suddenly, to her surprise, she came upon a middle-aged man but slightly known to her, who was weeping silently, but bitterly in a secluded corner. Thinking that his heart had been touched by the old song, she asked sympathetically:

"Why do you weep? Are you a Kentuckian?"

"No, madam," he replied. "I am a musician."

Suicide Among German Children.

Why do so many German children commit suicide? No one seems to know, but there is no dispute about the fact. Indeed it has been said that the majority of suicides are those of children, and experts seem inclined to connect the grisly epidemic with the educational system. That "the weak must go to the wall" has become an axiom that has been extended to the schools, and the undeveloped mind of the child seeks relief in suicide from the discouragement of failure. It would be interesting to know if any of the so-called heathen countries of the world have ever experienced such a horrid social phenomena as that of child suicide.

Boomerang.

Mrs. Hiram Offen—I'm afraid you won't do. As nearly as I can make out, you have worked in six or seven places during the last year.

Miss Brady—Well, an' how manny girls has yerself had in the same toime? No less, I'm thinkin'.—Boston Transcript.

A CURE FOR PILES.

Cole's Carbolisalve stops itching and pain—and cures piles. All druggists. 25 and 50c. Adv.

A girl's idea of a tiresome man is one who has good sense.

Mrs. Winslow's Soothing Syrup for Children teething, softens the gums, reduces inflammation, allays pain, cures wind colic, 25c a bottle. Adv.

It may be all right for a man to have a past, if it will only stay past.

"Thank Duke's Mixture for Them"

Every member of your family will appreciate the many handsome, useful presents you can get free with the coupons now packed in

Liggett & Myers

Duke's Mixture

Duke's Mixture is one of the big favorite brands for both pipe and cigarettes. Men everywhere prefer it because of its true natural tobacco taste. Duke's Mixture is simply the choice leaves of fine Virginia and North Carolina bright leaf—thoroughly aged, stemmed and crumbled. It's impossible to get a purer smoke or a more likeable one than this mild, rich, fragrant *Liggett & Myers* Duke's Mixture.

One *and a half* ounces of this choice granulated tobacco cost only 5c—and with each sack you get a book of cigarette papers FREE.

The Presents are FREE

They do not cost you one penny. In each 5c sack of *Liggett & Myers* Duke's Mixture we now pack a free present coupon. With these coupons you can get any article described in our new illustrated catalogue of presents. *As a special offer, good during December and January only, we will give you this catalog absolutely FREE.* Simply send us your name and address.

Coupons from DUKE'S MIXTURE *may be assorted with Tags from* HORSE SHOE, J. T., TINSLEY'S NATURAL LEAF, GRANGER TWIST *and coupons from* FOUR ROSES (*10c-tin double coupon*), PICK PLUG CUT, PIEDMONT CIGARETTES, CLEK CIGARETTES, *and other tags and coupons issued by us.*

Premium Dept.

Liggett & Myers Tobacco Co.

ST. LOUIS, MO.

Usual Kind of Office Seekers

"Well, how's every little thing, now that election is over?" asked the recently arrived washing machine agent.

"'Bout as they are every place else, I reckon," a bit pessimistically replied the landlord of the Turgidtown tavern. "The banker, the storekeepers, and lumber yard man, the doctor, the stock buyer, the blacksmith, and all the rest of the business men who have always 'peared to be capable of managing their various sized affairs successfully, are going on calmly and carefully attending to 'em, while all the triflin', one-gallused incompetents that have never had any affairs of their own to attend to and wouldn't be capable of conducting 'em properly if they had any, are out hotfoot and hell-bent to get and manage the post office for the rest of us!"

A Bit Candid.

First Tripper (after lengthy survey of second ditto)—You 'as got a hugly face, 'asn't you, mate?

Second Tripper—Corn't do nuffin' abaht it.

First Tripper—You might 'ave stopped at 'ome.—Punch (London).

Always full quality value in LEWIS' Single Binder. That is why the smoker wants it. Adv.

No, Cordelia, a dancing academy is not necessarily a hop joint.

ALBERTA

THE PRICE OF BEEF

IS HIGH AND SO IS THE PRICE OF CATTLE.

For years the Province of Alberta (Western Canada) was the Big Ranching Country. Many of these ranches today are immense grain fields and the cattle have given place to the cultivation of wheat, oats, barley and flax; the change has made many thousands of Americans, settled on these plains, wealthy, but it has increased the price of live stock.

There is splendid opportunity now to get a

Free Homestead

of 160 acres (and another as a pre-emption) in the newer districts and produce either cattle or grain.

The crops are always good, the climate is excellent, schools and churches are convenient, markets splendid, in either Manitoba, Saskatchewan or Alberta.

Send for literature, the latest information, railway rates, etc., to

C. J. Broughton, 412 Merchants L. & T. Bldg., Chicago
M. V. McInnes, 178 Jefferson Ave., Detroit.
Canadian Government Agents, or address Superintendent of Immigration, Ottawa, Canada.

PATENTS Watson E. Coleman, Washington, D.C. Books free. Highest references. Best results.

W. N. U., CHICAGO, NO. 48–1912.

The Cheerful Life

It is the right of everyone to live and enjoy the cheerful life. We owe it to ourselves and those who live with us to live the cheerful life. We cannot do so if ill health takes hold of us.

The wife, mother and daughter suffering from hot flashes, nervousness, headache, backache, dragging-down feeling, or any other weakness due to disorders or irregularities of the delicate female organs—is not only a burden to herself, but to her loved ones.

There is a remedy. Forty years experience has proven unmistakably that

DR. PIERCE'S

Favorite Prescription

will restore health to weakened womankind. For *40 years* it has survived prejudice, envy and malice. Sold by dealers in medicine in liquid or tablet form. Dr. Pierce's Favorite Prescription Tablets can be had of druggist or mailed on receipt of one-cent stamps—for $1.00 or 50c size. Address R. V. Pierce, M. D., Buffalo, N. Y.

Dr. Pierce's Pleasant Pellets regulate and invigorate stomach, liver and bowels. Sugar-coated, tiny granules.

SPOHN'S DISTEMPER CURE

Shipping Fever

Influenza, pink eye, epizootic, distemper and all nose and throat diseases cured, and all others, no matter how "exposed," kept from having any of these diseases with SPOHN'S LIQUID DISTEMPER CURE. Three to six doses often cure a case. One 50-cent bottle guaranteed to do so. Best thing for brood mares. Acts on the blood. 50c and $1 a bottle. $6 and $11 a dozen bottles. Druggists and harness shops. Distributors—ALL WHOLESALE DRUGGISTS.

SPOHN MEDICAL CO., Chemists and Bacteriologists, Goshen, Ind., U. S. A.

FOLEY KIDNEY PILLS

For Backache, Rheumatism, Kidneys and Bladder

BECAUSE THEY ARE RICHEST IN CURATIVE QUALITIES CONTAIN NO HABIT FORMING DRUGS ARE SAFE, SURE, AND SAVE YOU MONEY

For Sale Black Indiana land in Pulaski Co. 200 acres with improvements, 165 a. in crops this year. Will divide. $60 per acre. Also 5 passenger Ford Auto. 1912, $500. Address OWNER, POST OFFICE BOX 36, LAFAYETTE, INDIANA

CHEW SMOKE

MAIL POUCH

TOBACCO 5 Cts

IT'S WORTH YOUR WHILE—TO GIVE IT A TRIAL