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FARM NOTES.

Fall Plowing for Alfalfa.

I am very much interested in the queries and answers that I find in the Michigan Farmer. I should like to ask regarding the culture of alfalfa. Could the ground be plowed this fall and limed and sow alfalfa seed in the following spring with a prospect of success?

Illinois.

SUBSCRIBER.

Fall plowing for alfalfa is recommended by the best authorities where the seed is to be sown early in the spring. Alfalfa likes a firm seed bed, and if the land is not plowed until just before sowing the seed much more working will be required to get a proper seed bed than if plowed in the late fall or very early spring, the former being preferable on level soils that will not be inclined to wash during the spring rains. Where lime is applied it is best to apply it as soon as the soil is plowed, so that it may be worked into and thoroughly incorporated with the soil when the seed bed is being fitted. It is perhaps not as necessary to have a perfect seed bed for alfalfa sown in the spring as where it is sown in midsummer or early fall, for the reason that there is generally more moisture in the ground at that season of the year, and the spring rains will have a tendency to settle the soil particles together. However, no one can tell when a drought is impending, and it is best to have a good seed bed so as to give the young plants the best conditions possible to develop rapidly.

Top-Dressing Fall Plowed Land for Alfalfa.

I would like a few lines of advice in regard to alfalfa. I have about two acres of red clover and alsike which was cut for hay this year. The ground is high and rolling, of a sandy and gravelly nature. The second growth is now from five to ten inches high. Would it be advisable to fall plow and seed early in the spring? Would you advise top dressing with stable manure in winter or early in the spring? I intend to sow seed at the rate of 15 lbs. per acre with no nurse crop.

Lapeer Co.

A. G. W.

The fertility and humus which is added to a soil by the application of stable manure is beneficial to the growth of any crop, and alfalfa is no exception in this regard. Unfortunately, however, most stable manure contains a good deal of foul seed which produces an abundant crop of weeds when applied to the surface as a top dressing on plowed ground, and weeds are the worst enemy of the young and tender alfalfa plants. For this reason the writer would not follow the plan suggested in this inquiry. It is better to manure the land liberally the year previous to which the alfalfa is sown, planting it to some cultivated crop which may be kept clean and free from weeds and sowing the alfalfa the following spring. However, the manure might be

applied to this land before plowing this fall or during the winter previous to early spring plowing. However, the crop of clover which has grown on it this year will have stored considerable nitrogen in its roots and will add a good deal of humus to the soil, and by the use of some commercial fertilizer to supply the mineral elements of plant food in abundance this clover sod should furnish sufficient available plant food for the alfalfa with-

ing the stand. Thus it is better to have the ground as free as possible from weed seed when the alfalfa is sown, which is an argument for sowing it after a cultivated crop as above noted. However, the weeds will be less troublesome on this clover sod without top dressing of manure than with, and the application of fertilizer above advocated will have a tendency to hasten the development of the alfalfa plants and thus give them a more

is present the leaves have a spotted appearance. But so long as the plants are alive and thick enough to make a good stand there is every encouragement to believe that the crop will succeed. It is likely that inoculation was unnecessary on this new land, but this will become apparent one way or the other by next season. If the bacteria necessary to the thrifty growth of the plant is in the soil the plants will develop the root nodules which it causes and will have a thrifty, dark green color and appearance when they start next spring and will make a rapid growth. If the bacteria is not present they may live but will make a small spindling growth and will lack the color and appearance of vigor which characterizes the successful stand of alfalfa. An uneven inoculation may be the cause of the spotted appearance of the alfalfa. As above noted, the alfalfa should be clipped only when the new buds at the crowns begin to send out a fresh growth. Ordinarily this will be at about the time the plants begin to bloom. In clipping it is best to clip as closely as practicable without cutting off any of this new growth, as this will prove a greater discouragement for the weeds. But the new shoots coming up from the crowns should not be clipped off, as the future growth of the plants will be injured thereby.

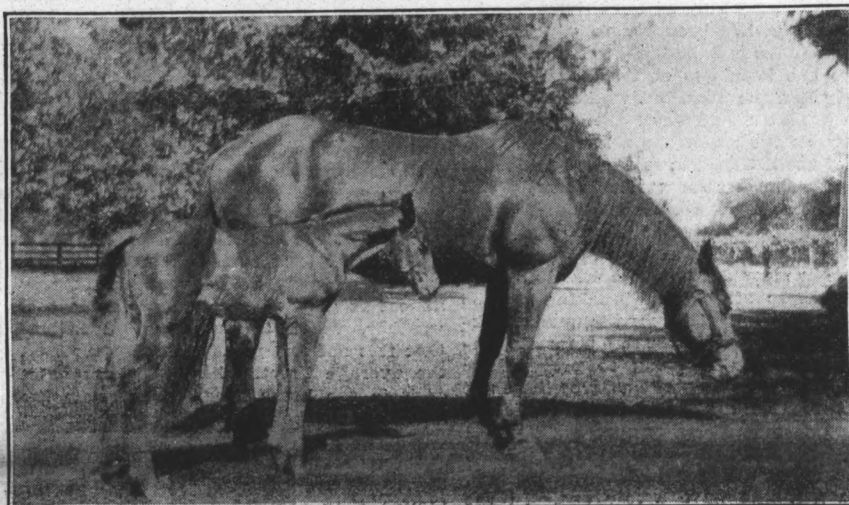
How Late to Clip Alfalfa.

Last spring I sowed about half an acre of alfalfa with barley as a nurse crop. I got a good stand. Cut the barley for hay. Some of the alfalfa in blossom. What I want to know is, will it do to clip it on account of dry weather? There is not growth enough to make hay. It was sowed about the second week of April.

Clare Co.

E. B.

Clipping this alfalfa at this season of the year would be more apt to benefit it than to harm it, notwithstanding the dry weather. When the plants begin to blossom they also begin to send out new growth from the crowns, and when this occurs sufficiently early in the season so the plants will make a good growth before winter it adds to their thrift to clip them. If there is not enough of a growth to make hay, simply clip it off and let it lie on the ground. It will act as a mulch in preventing the rapid evaporation of what moisture is left in the ground, and will afford some protection to the plants over winter. It is, however, injurious to a stand of alfalfa to clip it too late in the fall. This is true, not only the first season of its growth but during the entire life of the alfalfa meadow. The best authorities on the subject say that there should be a growth of at least a foot in height on the old alfalfa meadow when it goes into the winter. The late cutting of alfalfa weakens the plants and lessens their vitality. Undoubtedly the same fact applies to the new stand of alfalfa, and



Providing for Motive Power on the Farm in Future Years.

out manuring this spring. One benefit which is derived from the use of manure, however, is the beneficial effect which it has on the useful soil bacteria. But lime has a beneficial effect in preparing of the soil for the growth of the bacteria peculiar to the alfalfa plant and without which it will not thrive, and the application of lime will tend to discourage the growth of some of the weeds harmful to the stand of young alfalfa plants. Thus it would appear to be the better plan to not make the application of stable manure until after the alfalfa is well started, say next fall when it will help to protect it over winter and give it a good start the following spring. The objection of the weeds which will result from a top dressing of stable manure is not thought to be a serious one by some farmers, as they believe they can keep the weeds in subjection by frequent clipping with the mower. It must be remembered, however, that alfalfa should not be cut until the new buds are developed at the crowns of the plants and begin to send out fresh growth. If it is cut before it reaches this stage, particularly the first season of its growth it is said to be injurious to the plant, sometimes killing many of the plants and materially hurt-

even chance for existence in the battle for supremacy. This kind of soil is well suited to the crop if in a good state of fertility and the amount of seed noted, if sown without a nurse crop, should give a good stand.

How Closely to Clip Alfalfa.

I sowed a small field to alfalfa last spring that I had just cleared and got a fine stand without inoculation of any kind. It grew well until it reached about 12 inches in places, when it stopped growing and turned brown and some is blossoming. Does this indicate that it will be a success? Is this a good growth for the first year? I clipped the weeds quite high and will have to cut them again. Will it be advisable to cut them and the alfalfa closer? The land here is very peculiar as it grows very uneven crops. There will be a small plot that will make a rank growth and all around will be small.

Manistee Co.

W. W. E.

From the description given in this inquiry it would seem probable that this alfalfa will prove a success. Where the plants reach a height of one foot after clipping the first summer they may be considered to have made a good growth, especially in a dry season like the present. The brown appearance of the plants may be due to the dry weather. The plant is subject to a disease known as leaf spot in some seasons, but where this



Good Farms, Well Tilled, Mean Large Barns Well Filled, even in a Season of General Drought such as has Prevalled in Michigan this Year.

the clipping should not be delayed too late in the summer, if it is to be clipped again this season. But these plants that are now in bloom will make little more growth this year, and the new growth will come on faster if they are clipped off, and the weeds will get a setback from the cutting, so that the development of the plants, even in a dry season like the present, will be promoted by a midsummer clipping when they have reached the stage of growth described in this inquiry.

Handling the Second Crop of Clover.

I have 20 acres of June clover meadow, which has been mowed once, that I wish to handle in the best possible manner to insure a crop for next season. Will it kill the clover to take off a crop of seed, or will it be a better way to pasture or clip it to prevent it from going to seed?

Eaton Co.

A. L. W.

Under ordinary conditions clover does not live to make a very satisfactory stand of clover to cut the second year. While the clover plant is not, strictly speaking, a biennial, and does not of necessity die after the second year or after it has produced seed, it is ordinarily so reduced in vitality that the stand becomes thin. This is more true in our latitude than in the more northern localities where the snow comes early in the fall and remains in the ground late in the spring. Under such conditions the clover plant sometimes endures for a number of years, making a far more satisfactory stand than it will in our climate after the first year. But, other condition being equal, the plant will be less reduced in vitality if the second crop is cut for hay or kept from seeding by clipping it back, either of which plans of handling it would be better than pasturing it, from the standpoint of the inquirer.

Rust in Wheat.

Please give instructions through the Michigan Farmer for preparing seed wheat to prevent rust.

Clinton Co.

J. W. C.

The wheat rusts are not only among the most destructive, but as well the most complex and most difficult to control of the parasitic fungi which prey upon agricultural products. Instead of being one such "disease" as is commonly supposed, three kinds of rust are known to attack wheat. These are the crown rust, which is comparatively unimportant; the early or orange leaf-rust, popularly termed "red rust," and the late stem-rust, more commonly designated as "black rust." The life history of these fungi is very complicated and none too fully understood. It includes several stages of development, some of which take place on host plants other than wheat. Space will not permit a full discussion of the life history of these two destructive kinds of rust. Suffice it to say that no known treatment of the seed or of the plant is effective in preventing its ravages. Although the grain from infected fields has been found to contain the spores of the disease, it is not known that the growing plants are infected from this source and, in case this were true, treatment of the seed could not be effective, as when present they are buried beneath the coat of bran with which the kernels are covered. The air is the medium through which the rust spores reach the wheat plants, where they await the moisture of a friendly shower or the falling dew to facilitate their germination and entrance into the tissue of the leaves. When this has been effected rust fungus develops very rapidly and nothing is effective in checking its progress or the resulting damage to the crop.

What, then, can be said with regard to remedial measures? Obviously, such measures must be indirect in character, since direct measures are not effective as above noted. Fortunately for us in Michigan, rust is not as destructive to the earlier maturing winter varieties of wheat as to spring wheat. Neither is it so harmful to the strong, vigorous plant as to the weaker plant with less vitality. It is then clear that such measures as will add to the thrift and vigor of the crop will afford a measure of immunity against damage by rust. First a proper seed bed should be prepared and the soil should be sufficiently well fertilized to insure a vigorous growth of the wheat plants from the start. Then good clean seed of a hardy variety and of the best germinating powers should be sown. The seeding should also be done reasonably early to insure a good development of the plants before winter so as to give them a vigorous, early start in the spring. The seed should be selected from a variety that has not developed rust badly in previous years, since there is considerable difference in the rust resisting qualities of different varieties, although none seem to be entirely immune from attack. If

good cultural methods are followed, and a good rotation of crops is practiced, we can thus escape serious damage from rust in Michigan, unless the weather should especially favor its development at or near the blooming period of the crop. Incidentally it is well to keep the wild grasses mowed alongside the roadside, as many of these are host plants for the leaf rust during its life cycle. Likewise barberry bushes should not be harbored on the wheat farm, as the stem rust develops during one stage of its progressive existence on the leaves of this bush. The seed wheat should also be treated for smut, as the presence of this fungus will weaken the plants and make them more susceptible to damage from rust. Thus it is apparent that the good wheat grower will generally suffer less loss from rusty wheat than the indifferent or careless grower. This is but another argument for good farming, which pays all along the line.

LILLIE FARMSTEAD NOTES.

Growing Corn Without Rain.

I have two very good fields of ensilage corn that were planted the very last of May and first of June that have not received a good rain since they were planted. Up to that time we had had a very wet spell. The ground was worked up nicely with a spring-tooth harrow after this wet spell and the corn planted. Since then it has been well cultivated. An earth mulch has been carefully preserved and we have not had a good rain since. There has been one or two showers that simply laid the dust, but we have not had a rain that would soak the ground and wet down the roots. As a matter of fact, one of the little showers we had I thought did more harm than good. It simply wet the surface a little bit and when the sun came out it evaporated, leaving a crust that enabled lots of moisture to evaporate before we could get the cultivators over the field to stop it by breaking up the capillary action. This corn is much thicker this year than I usually plant for ensilage and this is going to prevent me from getting as good a growth as I ought to this dry summer. Had I had one or two good soaking rains, I would have had a wonderful crop of ensilage. There is no question about it. As it is, I am going to have a fair one. In the thinner places and more moist places of the field, there will be pretty good-sized ears, but on much of the land that is being affected by the drouth, the ears will be exceedingly small, owing to lack of moisture and owing to the thickness of the corn. However, I believe I am going to have a very good tonnage and I am so pleased with planting the corn thicker than usual that I intend to try it again next year unless I am convinced later on that it is not a wise practice. With a good soaking rain now, however, it would be a splendid crop.

Threshing.

The threshing is done again for another year. This is one of the worst jobs on the farm. This is a job that the men hate to do. It is also a job that the women folks hate to have anything to do with. The men are dusty and dirty and sweaty, especially if it is hot weather, and it is a disagreeable job, but we are through with it. We have had a good harvest and we feel good over it. While we have had no harvest at Lillie Farmstead this year that is worth bragging about, and as a matter of fact I tell you nothing about Lillie Farmstead for the purpose of bragging, but just simply to show what we are trying to do, but we have had a harvest that we have no particular reasons to complain of. Of course, I have raised more grain this year than I ever did before, but that is accounted for from the fact that I have more land. We have a fairly good crop of oats and peas, and a fairly good crop of wheat. While Lillie Farmstead is a dairy farm primarily, with a herd of 52 cows and the young stock that necessarily go with them, yet this year we have raised 1,469 bushels of wheat, 1,771 bushel of oats and peas and 800 bushels of wheat. Of course, that makes something of a grain farm of it. None of the oats, or oats and peas, however, will be sold off the farm, nothing but the wheat, with perhaps some of the oats for seed oats. The rest will be fed upon the farm and I wish I could say that we wouldn't have to buy any more feed, but we will. It will cost hundreds of dollars for feed besides what we have grown.

On one field where I sowed oats last spring and seeded to alfalfa, as I explained before, I sowed the oats at the

rate of one bushel per acre. I got a splendid catch of alfalfa. Whether it lives through the dry weather or not is more than I can tell. But what I am surprised at is the oats. On this field of oats, I got 61 bushels of oats to the acre from one bushel of seed, and they were the finest, best filled, nicest oats that we raised. This would seem to indicate that it is not necessary to use so much seed for oats. While I never believe in seeding as heavy as some people, never using over two bushels to the acre, (some people use three), yet I did not think that four pecks, or a bushel of oats was enough seed. This, however, gives me a pretty good crop and a good catch of alfalfa to boot.

It has been the best weather for haying and harvesting in this vicinity this year that I ever remember of. We got our hay in without a spear of it getting wet, as we also did our wheat and oats. Part of our oats and oats and peas we had to stack so that we could put the straw into the barn, and there was no rain on these stacks, so that the grain is in fine condition. I never saw grain in better condition than ours is this year. It is perfectly dry. The wheat and oats also have a lustre which shows that it was well developed. I had it planned, of course, so that when we got through threshing there would not be a spear of straw out doors, but my plans miscarried just a little. I put so much wheat in one bay of the new barn that we could not get it into the straw part of the barn and part of it had to be blown out of doors. This, however, we can use up easily before the heavy fall rains come, because we will have our hog pens and hen houses all to bed down and we can use some of it in the horse stables and thus use up the most of it without having to haul it into the barn, and not allow it to be out doors. We have a fine lot of straw. The oat and pea straw is in most excellent condition. I never saw it in such good condition before. The cows and horses eat it now almost as good as they usually do in cold weather, which is surprising. I believe that this oat and pea straw is better than the average timothy hay. We put a lot of it in the horse barn, covering up the hay, and our horses have had to eat pea and oat straw for the last several days, and they seem to eat it almost as well as hay, and are apparently doing well, although they are doing the hardest kind of work, plowing on heavy land for fall wheat.

Plowing for Wheat.

We now have, August 18, 40 acres plowed for fall wheat. We have another 15-acre field to plow and we will get it all done in plenty of time, I think, so that if there comes a rain, we will get a good seed bed before it is time to sow the wheat.

COLON C. LILLIE.

LOW WAGONS FOR SILAGE HAULING.

With the approach of the season for the cutting of silage corn and the filling of the silo, the question of the wagons upon which this heavy crop is to be hauled from the field to the silo is an important one for the farmer to consider. In the earlier days of handling silage corn various devices were resorted to in constructing low-down racks that could be used on the ordinary farm wagon to reduce the labor of drawing, which was too strenuous where the green, heavy corn had to be lifted or pitched onto the old-fashioned high racks. But with the development of other farm machinery and equipment the low-down farm wagon came to the aid of the farmer in this respect, and now is used on every well-equipped farm in the hauling of corn from the field to the silo, as well as in the handling of other heavy and bulky farm crops and in the various trucking about of materials which must be done upon every farm, and for which the low-down wagon is a distinct labor-saver. The low-down, wide-tired wagon, fitted with a platform rack is a great convenience on the farm, and would not be dispensed with on any farm where it is once tried. Modern invention has provided substitute wheels which may be used in making a low-down wagon out of the ordinary farm or road wagon, and low wagons are also manufactured in various types and styles, to suit the needs of the individual user. These may be secured at comparatively small expense from the firms advertising in the Michigan Farmer, and the man who owns a silo and not a low-down wagon, should lose no time in supplementing his farm equipment in this respect.

Oakland Co.

A. R. FARMER.

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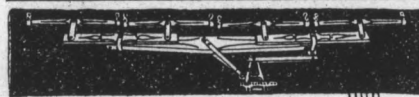
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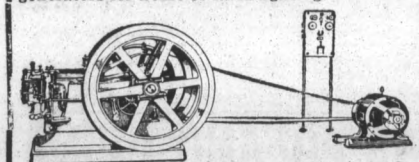
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LIVE STOCK

CONCRETE FLOOR FOR THE HOG HOUSE.

I am going to put a concrete basement under my hog pen and would like very much to have a cement floor but some of my neighbors say it is bad for the hogs and that they will get rheumatism, and some say not. Will you please inform me through your valuable paper if I had better put in a cement floor or not? The building is 16x26 ft.
Jackson Co.

F. A. S.
By all means put a concrete floor in the hog house. It is the most satisfactory, most sanitary and most permanent floor which can be used for the purpose. If well laid, it is practically indestructible and permits of keeping the pens clean and in a sanitary condition. It should be made with a slight slope toward the doors of the pens so that the floor of any pen can be flushed with water if desired, as is sometimes essential, as for instance, when it is desired to disinfect the pen in case disease has invaded the herd. But the hog should not be compelled to lie on the cement, especially in cold weather. A board platform can easily be constructed of sufficient size for a nest, and with low sides made of scantlings to retain the bedding. Some who have tried them like the elevated sleeping nests, which consist of a platform elevated about three feet from the floor to which the hogs have access by means of a plank chute with cleats or a stairway with easy steps. In some cases the platforms have been

and berry bushes get into a field and injure the grasses. Before we plan to eradicate weeds from our pasture lands it is necessary that we make a study of the various weeds and their characteristics and determine which are really "plants out of place." Dandelions are not a weed when found in the pasture, because their medicinal qualities are very beneficial to live stock. On some kinds of soil certain weeds make a better filler than other weeds. We have much to learn about pasture improvement before we can know to a certainty the various kinds of grasses and weeds that are beneficial or detrimental to our animals.

How to eradicate the various kinds of weeds depends largely upon circumstances and conditions. Briars and bushes can be destroyed by stubbing out and reseeding the bare places. Thistles may be held in check by mowing in July, although this does not always kill them out. Every effort should be made to prevent them from going to seed. The docks should be pulled up by the roots when the ground is moist and soft. Nettles should be forked out before they go to seed and the ground seeded with grasses. Sait is a very effective remedy for the eradication of nettles.

Moss is very common on wet land. The best way to eradicate it is to go over the ground with a sharp tooth harrow a number of times and make the conditions more favorable for the growth of grasses. It may also be destroyed by the use of a spray composed of a four per cent solution of sulphate of iron. Lime and basic slag are highly recommended for destroy-



Brood Mare 27 Years Old, with Her Yearling and Two-Year-Old Colts, Owned by Fred Dickinson, of Eaton County.

constructed so they could be used in either position as desired for the kind of hogs kept in the pen, being used on the floor for brood sows and in the elevated position for the growing pigs and store hogs. In laying a concrete floor it is a comparatively easy matter to set the posts for the partitions in the concrete and to construct permanent concrete troughs. But it would be a mistake in building a hog house, or in fact a stable of any kind to use any other material for the floor.

THE IMPROVEMENT OF PASTURE LANDS.

Good pastures are the basis of successful live stock or dairy farming. Consequently it is of the greatest importance to stock breeders and feeders, as well as to dairymen that they begin a systematic plan of improving their pasture lands so that the greatest profit may be derived from them, not only for the present but in years to come.

Eradicating Noxious Weeds.

The first point to claim our attention is to eradicate the noxious weeds that are crowding the grass out above the ground and robbing the roots under ground, besides scattering their seeds broadcast. Many weeds, besides occupying the ground in place of the grass, are actually injurious to the health of the cattle. Such weeds as thistles, docks, daisies, wild carrots and various others that might be named should not be ignored. Some varieties of grasses are among the very worst weeds. They are not palatable nor nutritious and consequently are left by the cattle to seed the whole pasture and crowd out the more desirable grasses. Some of the worst grasses spread themselves by both stems and seed. Frequently a field becomes full of moss and grasses cease to thrive. Sometimes briars

ing moss. The basic slag should prove the best remedy because it possesses a fertilizing value in addition to the lime that it contains.

Daisies are a nuisance in a pasture. They seed freely and soon overrun a field when allowed to secure a foothold. Ragweed is a very troublesome weed which takes up a lot of valuable room that would be more profitably utilized by the grasses. It may be kept under fairly good control by pasturing it with sheep, which are fond of the flower and will prevent it from reseeding itself. Good drainage will help to keep out many of the most troublesome weeds. Some can be destroyed by plowing the pasture and reseeding, but when it is possible to give the pasture a thorough renovating without breaking up the sod it will be much better than to plow it and spend a number of years time to get a good turf established before returning it to pasture again.
New York. W. MILTON KELLY.

CARE OF YOUR EWE FLOCK.

The ewe flock is the pearl of great price to the successful sheepman. By all means keep your ewes healthy and vigorous for upon a healthy, thrifty condition of the ewes depends your success. The healthy ewe is able to live on rougher forage than your other farm stock but it is with sheep as with all else. You must give them some attention if you expect profit.

Since weaning your lambs you have allowed your ewes to graze on some dry wheat pasture, and that is right; but now it comes time to feed up your ewes. Your lambs have already been on good grass of course, and should be kept on good grass until sold but now your ewes need good grazing also.

In about a month or six weeks you will start breeding your ewes; and for

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A SAFE, SPEEDY & POSITIVE CURE.

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SAFE CERTAIN.
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Should be kept in every stable
Colic needs prompt, energetic treatment, therefore it is important to have a reliable remedy always on hand.

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or send 10c. to help pay cost of trial bottle (one dose.) Seldom necessary to give a second dose.

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We will send you 100 lbs. of DR. HOLLAND'S MEDICATED STOCK SALT on 60 days' trial, freight prepaid. If you derive no benefit, it costs you nothing; if you do it costs you \$5.00. Give us your order at once.
The HOLLAND STOCK REMEDY COMPANY, Wellington, Ohio.

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Heave, Cough, Distemper and Indigestion Cure.
The first or second \$1 can cures heaves. The third is guaranteed to cure or money refunded. \$1 per can at dealers, or express prepaid. Send for booklet.

THE NEWTON REMEDY CO.
TOLEDO, OHIO.

the sake of a larger crop of twins and stronger lambs you must start to get your ewes fatter.

Men who every season make money from their lambs find that if they flush the ewe flock each fall—that is, feed them better for several weeks before going to the buck—there are more twins and more milk at lambing time.

Many of your troubles with weak lambs and empty udders would be avoided if your ewes were fatter when brought in for winter. No one objects to over fat ewes more than I, but the ewe flock must be in good shape if you expect profits.

Be ready, then, to turn your ewes over onto fresh fields and better pastures, turn them into weedy corn fields, watching that they don't learn to pick off too many corn ears—or orchards with clean water and salt as they demand.

Good grazing from now until winter will decide for you between profit or loss; and give them such a good start that, with bright straw, hay and some roots or silage, and after lambing, a taste of oats, bran and corn chops—they will earn for you surprising profits.

When first hungry in the morning turn them in around your lanes and buildings, where they will eat down the weeds. See that they have plenty of clean water and salt, and that they can't get their heads through any holes in the grain bins and eat until they are foundered.

Thus they will clean up the weeds and get a little change of grazing.

Try the plan of flushing your ewes from now until breeding season, then follow with good pasture, and you will see from results that that plan makes most profits.

SHEPHERD.

TWO FACTORS IN PORK MAKING.

The two most important factors in pork production are the hog and the man. If these are right there is not much risk to take in the business. The number of pounds of pork that can be produced from a given number of pounds of feed depends in part upon the individuality of the hog. I once knew two pigs from the same litter to eat from the same trough for eight months and eight days, after which they were slaughtered. The scales revealed a difference in these animals of 103 pounds. Prof. Holden is laying great stress upon the individual ear in the work of corn improvement and there are plenty of people in Iowa who will tell you that that state has increased the aggregate of her corn crop millions of bushels by giving attention to this matter.

Now there is just as much difference in the possibilities of pigs for pork production as in ears of corn for seed. Many of us are too careless about the breeding of our hogs. The sows are chosen with too little attention to the matter of form in fact, they are not fed nor cared for in the way to produce either the best form or the hardest constitution. The pig designed for a brood sow should be neither over-fed nor closely confined, but she should have enough bulky food to keep her in thrifty condition, should be given plenty of drink and abundant opportunity for exercise. In the beginning she should have been chosen from a large litter and it would augur well for her future if she were the thriftiest pig in the bunch. It is not necessary that she be pure-bred. A cross with any of the best breeds, of similar type, is good enough, but she should be a good pig from a numerous litter and her owner should have sufficient interest in her to insure that care and attention to details that are requisite to success.

The sire should be a good individual and should be pure-bred. There is not another item in the business of greater importance than that of the sire. The ill-formed males of indifferent breeding and the fairly good individuals with no pedigree that are often used as sires should all be branded as failures and sent to the slaughter house just as soon as their condition will permit. There is not a man who reads this article who cannot better afford to load his sows in a wagon, take them ten miles to a good boar and pay well for the service than to use the questionable sire in his nearest neighbor's yard and pay nothing.

Given a bunch of pigs with a good ancestry behind them the rest of the work of pork-making will depend entirely upon the man. First he must know the importance of a balanced ration. The pig must not be started on a ration that is too carbonaceous. The dairyman is fortunate, for he usually has plenty of skim-milk, which is one of the best parts of any ration for a growing pig. It is rich in protein and while we have it in plen-

tiful supply the grain ration may consist entirely of corn ground or soaked without any danger whatever. With the pigs middlings are excellent feed but they are often too costly to be used with economy in any considerable quantity. The pigs should be given what feed they will clean up readily, but no more. But our hogman must give close attention to details. He will weigh the feed often enough to make him a very accurate guesser, for in this way only will he be able to tell where he is at from week to week. He will look after the comfort of the pigs also for this will mean dollars to him in the end. He will separate the smaller ones if necessary, or provide some way by which they can get their full share of the feed. He will read plenty of literature in the line of his business. He will know his neighbors' hogs, too, and if any of them are doing better than his he will not be foolishly sensitive or jealous over it, but will try instead to discover the reason why and reform his own methods. New conditions are constantly appearing that affect the problem of feeding. The careful feeder will study all the different grains with reference to their food value and their price in the market. He will compound the cheapest ration obtainable and then give the animals plenty of it at regular intervals every day until they are ready to slaughter. Above all, the successful hog man will keep his eye on the market. It is quite possible to lose 20 per cent of the entire value of the hogs by selling them at the wrong time. Of course, we are all liable to mistakes of this kind, but a proper amount of care and attention to the market and the probabilities of the future will generally yield a richer return than any other sort of energy we may invest in the business. The successful man will be devoted to his work. He will have an ideal and it will constantly move along an upward way. He need not live and eat and sleep with his hogs, but now and then his friends will suspect him of having hog on the brain. The world honors the man who is devoted to his business and the constant improvement witnessed everywhere in Michigan hogs evidences a growing interest in this branch of live stock husbandry.

Finally, it may be doubted if there is any animal on the farm today that will yield a larger profit to its owner than the hog and this fact would seem to justify a growing interest in the business of pork-making.

Oceana Co.

W. F. TAYLOR.

CHOLERA INFECTED PREMISES.

Living in a section where hog cholera has been prevailing with considerable loss, I have this to say as to the time when it will be safe to bring hogs that have not been exposed to the disease on premises that have been thus infected. There is a wide difference of opinion among hog raisers as to how soon hogs can be safely brought into quarters or on pastures where hogs have died with cholera, and while it has been proven that by disinfection, premises thus contaminated can be brought into use again within a very short time without danger, just what constitutes thorough disinfection is a point on which some disagree. From my experience not less than one year should elapse and all pastures that have been infected by cholera-infested hogs should be plowed and cultivated before fresh hogs are allowed to be brought on the premises. All pens, yards and houses where any of the sick hogs have run should be torn down and new ones erected, even though they be only temporary, too much care cannot be taken as hogs have been known to contract the disease by pastures where hogs died three years previous. Where it is possible to do so I think it best to devote the farm and surroundings where hogs have died with cholera to some other line of live stock for a period of four or five years, but in sections where hogs are grown extensively it is a hard matter to persuade the farmer that this is correct.

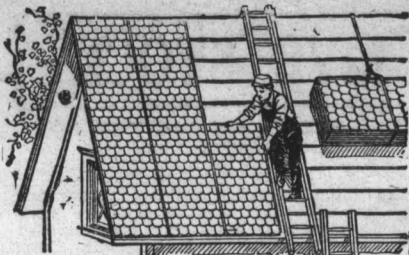
Illinois.

L. G. JOHNSON.

The new serum treatment for securing immunity against cholera, which can be secured through the experiment stations or the Department of Agriculture, makes such extreme measures as are above advocated unnecessary, although very thorough disinfection should, of course, be given.—Eds.

ANY PICNICS?

We will be glad to publish the dates and place to be held of any picnics or farmers' gatherings of any kind, if those interested will let us know.



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AYRSHIRE BULL CALVES, Berkshire swine. Eggs for White and Buff Orpingtons, White and Barred Rocks, Light Brahmas, White Leghorns and White Wyandottes \$1 per 15. Michigan School for the Deaf, Flint.

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Pay your money and take your choice from my herd of 70.

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C. D. WOODBURY, Lansing, Michigan.

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W. C. JACKSON, 715 Rex St., South Bend, Ind.

HEREFORDS—Both sexes and all ages for sale. Also Poland-China hogs. ALLEN BROS., Paw Paw, Mich.

LILLIE FARMSTEAD JERSEYS,

We have some splendid young bulls for sale. Some of them are old enough for service. They are from cows with records of 300 to 425 pounds of butter last year. Write for description and prices.

COLON C. LILLIE, Coopersville, Michigan.

JERSEY BULL CALF born Oct. 4th, '09. Dam gave 9,386 lbs. milk in one year, test 5 to 5½%. Sire's dam's record 10,060 lbs. milk in 10½ months, test 5 2-10 per cent. The Murray-Waterman Co., R. D. 6, Ann Arbor, Mich.

FOR SALE—12 registered Jersey Cows of St. Lambert and 12 Island Red, from 2 to 10 years, all of nearly so. Price \$100 each if taken at once. C. A. Bristol, R. F. D. 5, Fenton, Mich.

BUTTER BRED JERSEY BULLS FOR SALE. CRYSTAL SPRING STOCK FARM, Silver Creek, Allegan County, Michigan.

Register of Merit Jerseys. Official yearling records. T. F. MARSTON, Bay City, Michigan.

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WITH BIG MILK RECORDS. TUBERCULIN TESTED BY STATE VETERINARIAN. ROYCROFT FARM, Sidnaw, Michigan.

For Sale—Four young Shorthorn bulls, milking strains, price \$30 to \$50. Also five Collie Puppies, eight weeks old, \$5 each; two female Collies, one year old, price \$10 each.

J. J. SHEARER, Plymouth, Michigan.

DAIRY BRED SHORTHORNS. Can spare a few females. Also bull 12 months old. Citizens Telephone. J. B. HUMMEL, Mason, Michigan.

SHORTHORN cattle of both sexes at reasonable prices. I breed for both milk and beef. Come or write. T. M. SOUTHWORTH, R. No. 13, Box 73, Allen, Mich.

SHEEP.

Parsons Oxford Rams—These popular big, dark faced rams will produce bigger and better lambs. Grade X \$15.00 XX \$20.00 XXX \$25.00. ROMEYN O. PARSONS, Grand Ledge, Michigan.

Oxford-Down Sheep and Polled Durham cattle for sale. A. D. & J. A. DE GARMO, Muir, Mich.

OXFORD DOWNS

A few good field rams for sale.

H. J. DE GARMO, R. No. 1, Clyde, Michigan.

46 Rams and 100 ewes (reg) Rambouillet descended from the best flocks. In perfect health in lots to suit buyers. J. Q. A. OOK, Morrice, Mich.

FOR SALE—70 Good Registered Shrop Ewes, 20 yearling rams, 10 ram lambs, one 2-yr.-old stock ram bred by Wardwell, E. E. Leland & Son, R. No. 9, Ann Arbor, Mich.

MAPLE RIDGE SHROPSHIRE—Closing out sale choice yearling rams. Ewes all ages, will be sold without reserve. H. STEWART, Lendon, Michigan.

SHROPSHIRE yearling and ram lambs, the best of wool and mutton type from registered stock. GEO. P. ANDREWS, Dansville, Ingham Co., Mich.

24 PURE BRED SHROPSHIRE RAMS for sale 12 lambs and 12 yearlings. Extra fine stock from imported rams. The low down, blocky kind, well woolled. Must be sold by September 1st. Address, L. R. SLOTE, Constantine, Michigan.

SHROPSHIRE HALL STOCK FARM

Will import one hundred yearling ewes and 15 rams in June for Michigan and the same for Boise, Idaho. Branch of this farm. Will make a fair price on yearling ewes or rams, also on some aged ewes with lambs at side, for 60 days.

L. S. DUNHAM & SONS, Concord, Michigan.

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LARGE ENGLISH BERKSHIRES

Have fine lot of spring pigs of both sexes. Few young sows for fall farrow. Vigorous and strong, the type for profitable pork production. Satisfaction guaranteed. F. A. BYWATER, Memphis, Michigan.

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WON 189 PRIZES IN 1909.

Stock of both sexes and all ages for sale. Breeders of Guernsey Cattle, M. B. Turkeys, Barred Rock Chickens, Pekin Ducks. GEORGE C. HUPP, Manager, Drawer A, Birmingham, Michigan.

NORTHERN GROWN BERKSHIRES for sale cheap—Yearling sow with litter about ready to wean; three boars ready for service, at about pork prices; boar pigs, for winter service. Need more room for fall litters. For catalog and prices address ROYCROFT FARM, Sidnaw, Michigan.

BERKSHIRES Unexcelled in breeding. Select-ed boars, sows and gilts. Choice fall pigs. T. V. HICKS, R. No. 11, Battle Creek, Mich.

BERKSHIRES of the most type and strains. C. S. BARTLETT, Pontiac, Mich.

Berkshire—A few choice fall Gilts bred for early farrowing and a choice lot of Spring Pigs with prices right and the right breed. A. A. Pattullo, Deckerville, Michigan.

DAMS BROS. Litchfield, Mich., breeders of improved Chester white and Tamworth swine. Pigs, either bred by 1st prize State Fair winners. Buff Rock, Buff Wyandotte eggs \$1 per 15; W. Orpington \$3 per 15.

DUROC JERSEYS.

CAREY U. EDMONDS, Hastings, Michigan.

DUROC JERSEYS—75 choice male pigs, 80 choice fall pigs, 6 sows with pigs, 10 show prospects in fall sows. Write for particulars. J. C. BARNEY, Coldwater, Mich.

DUROC JERSEY SWINE. Shepherd Dogs. B. P. Rock eggs. \$1 per 15. J. H. BANGHART, Lansing, Mich.

Chester Whites and Guernsey Cattle. A change of business and everything for sale before Sept. 25th. WILL W. FISHER, Watervliet, Michigan.

IMPROVED CHESTERS

Choice Pigs of March and April farrow either sex. W. O. WILSON, Okemos, Mich. (Both Phones.)

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O. I. C.—For Sale a few choice pigs of March and April farrow in pairs not akin. Satisfaction guaranteed. A. Newman, Marlette, Mich., R. F. D. 1.

O. I. C. REGISTERED PIGS, 10 to 12 weeks from World's Fair winners. Glenwood Stock Farm, Zeeland, Michigan. Phone 94.

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O. I. C.—SPRING PIGS and a few BRED SOWS at reasonable prices.

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RECORDED MULE FOOTED HOGS are said to be immune from hog cholera. Stock of all ages for sale. John H. Dunlap, Williamsport, Ohio.

150 POLAND-CHINA SPRING PIGS

either sex, with size, bone and quality. Bargains on early fall weaned pigs. I ship c. o. d. and furnish pedigree promptly. Write for prices.

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THE FARMER'S HOG—BUTLER'S BIG Get big, grow fast, keep easy. A bigger, better and more prolific Poland-China. Pairs and trios not akin from three big western boars and big sows. 100 on hand. J. C. BUTLER, Portland, Mich. Bell phone.

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POLAND-CHINAS—Fine lot spring pigs now ready to ship. WOOD & SONS, Saline, Michigan.

POLAND CHINAS—Spring pigs of either sex for sale. E. D. BISHOP, Route 38, Lake Odessa, Michigan.

POLAND-CHINAS—Sows bred for Sept. farrow. Boars ready for service; spring pigs, either sex. Write L. W. Barnes & son, Byron, Shiawassee Co., Mich.

P. C. PIGS—Singly or in pairs not akin. Minorca eggs \$1.50 per 15. R. W. MILLS, Saline, Michigan.

Poland-Chinas—Boars, Gilts and Pigs of quality at the right price. B. M. WING & SON, Sheridan, Michigan.

Poland-Chinas—Large styled, growthy spring pigs, also fall pigs. Send for snap shot photos and lowest prices. Robert Neve, Pierson, Mich.

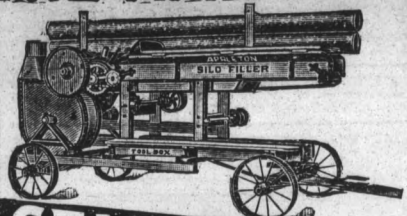
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BROWN'S PIG FARM, Grand Rapids, Michigan.

Large Improved English Yorkshires.

The hogs that make good. September gilts bred to farrow next August or September. Spring pigs of either sex. Pairs not akin. Satisfaction guaranteed. COLON C. LILLIE, Coopersville, Michigan.

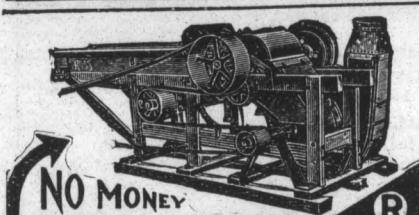
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CONDUCTED BY COLON C. LILLIE.

ENCOURAGES THE MAKING OF
DAIRY BUTTER.

Whatever the reasons may be for making butter upon the farm, I am firmly convinced that if dairy butter is properly made and marketed it will command a good price. The following suggestions it is hoped will prove of value to those who are looking for big prices for dairy butter:

In the first place, only good butter can command good prices. To get such butter requires the strictest attention to cleanliness in milking, handling the milk and cream and in making the butter. Churn often. No fewer than three churnings a week should be made where high quality is sought. Sour the cream at a temperature as near 70 degrees as possible. The last stages of ripening may be finished at close to the churning temperature. The use of a fine flavored "starter" will improve the flavor of the butter. "Starters" are pure cultures of lactic acid bacteria (souring germs) which give butter its desirable aroma. Commercial starter is best and this will cost only about 75 cents per month. Full directions for use are furnished free by the manufacturer if requested.

Care must be taken not to get the cream too sour for churning. The bulk of dairy butter during the summer is damaged by oversouring the cream. Where the best butter is to be made a test is necessary to determine when cream is sour enough to churn. Very simple and cheap tests are available for this purpose. Five to six tenths of one per cent is the best acidity for churning.

Always strain the cream into the churn to remove any particles of curd or dried cream. One thickness of cheese cloth is best for this purpose. Color the butter to suit your market. A cream testing between 25 and 30 per cent fat churns best. Remember that the best and quickest churning is obtained when the churn is about one-third full.

With all the foregoing conditions right, the next thing is to get the right churning temperature. This varies considerably, ranging from 45 to 65 degrees F., with an average temperature of about 55 degrees F. The best rule to follow is to have the temperature such that the cream will churn in from 30 to 45 minutes.

Be careful not to churn the butter into a lump. Stop the churning when the granules are about half the size of a pea. When larger than this it is more difficult to remove the buttermilk and distribute the salt. When smaller, some of the fine grains are liable to pass out with the buttermilk.

Do not wash the butter too much; it will remove some of the fine, delicate flavor. One washing in which as much water is used as there was cream is usually sufficient.

Salt at the rate of about one ounce per pound of butter. The buttermaker, however, must cater to market demands with regard to the amount of salt as he does with regard to color. It is needless to say that nothing but the best grades of salt should be used in butter.

When only a small amount of butter is made, the butter may be worked with a ladle in the churn. For larger amounts it is best to use a small table worker which can be purchased for a few dollars.

It is safer for the average butter-maker to work the butter twice. The first time it is worked very moderately. It is then allowed to stand six to eight hours after which white streaks are usually noticeable on cutting the butter with a string. The second working should cease as soon as the butter assumes a uniform color. By following this rule butter will never be overworked nor will it ever show mottles (uneven color).

For fancy trade, one-pound prints wrapped in parchment paper are the most popular. The prints are made with a small hand printer which should have the dairyman's monogram cut into it. The imprint of the monogram in the butter serves as a guarantee of its genuineness. It is also desirable to have some neat lettering on the parchment paper, such, for example, as "Fancy Dairy Butter," "Cold Spring Dairy Butter," etc. Prints must be kept cold to preserve their attractive appearance.

With the small butter producer, the greatest trouble is finding a suitable market for his product. It is customary with

most of these producers to sell their butter to their country grocer, who, as a rule, makes little discrimination in the quality of the butter, the good and the poor selling for practically the same price. No producer of good butter can afford to market it in the country stores. Those who have made farm buttermaking a success have invariably catered to private trade. Seek private customers who are willing to pay well for a good product. By selling direct to the consumer you save not only the middleman's profit, but the consumer is likely to pay you a premium for your butter which he would not pay to the middleman. He knows the butter is fresher when it comes from you direct.

There is a constantly increasing tendency for city consumers to prefer getting their perishable products like butter and eggs direct from the producer.

Wisconsin.

JOHN MICHELS.

HOW FAR TO SET THE SILO FROM
THE BARN.

I come to you again for some needed advice. I ordered a silo and I expect it will reach here soon. I shall erect it north of the barn so the doors of the silo will be right in line with the feed alley of the cow stable. How near to the barn should the silo be built so as to be handy and convenient? Is there danger of silage not keeping well when put in silo too dry, that is, cutting the corn some time before it is put in silo?

Leelanau Co.

R. P.

Many people make a mistake and get their silo too close to the barn. I made this mistake on my first silo. My last silo I put off from the barn so that the bottom of the chute is about six feet. The silo really stands closer to the barn than this, but we made the chute at an angle to the barn so that it clears the barn six feet. This gives room enough so that we can back the ensilage car in out of the way. This compartment is about seven feet high. From the top up the chute is only large enough so that a man can readily climb up on the inside of it. If you get your silo too close to the barn, then you have no room to throw down your ensilage and handle it properly. Better put it off six feet from the barn, and make the lower portion of your chute roomy. This will hold ensilage enough so that it will be convenient to handle it. This little house will also be very handy for storing your ensilage car when not in use. Corn should contain sufficient moisture to pack well in the silo. It is better not to allow the corn to remain too long in the field after it is cut.

COLON C. LILLIE.

PROTECT THE COWS.

The individual who milks cows during fly time in a crowded, poorly ventilated barn has my sympathy, because I have been there and know that there is no picnic pleasure in such company and surroundings. Don't kick and scold the cows when they fight the fly nuisance with both ends and their feet, but get busy and make them as comfortable as possible before taking a place in the line with the milk pail in hand.

Spray the inside of the stable, and the cows, with some dependable preparation in solution with water. There are several of these on the market. The sheep dips are quite as good to drive the fly pests from the barn when they are used with a spray pump. Any hand sprayer such as are used to spray potatoes will answer the purpose. Directions on preparations will give the proper proportion of water.

Each milker should be provided with a light cotton or burlap blanket with which the cow can be protected.

A wire stretched across the barn behind the cows for a lantern is usually in evidence on well-managed farms. A string attached to this which will slide on the wire, with a wire hook at one end, will hold the cow's tail so that she will not keep switching the milker in the fact, from force of habit, when the fly blanket is over her back. A piece of old hay rope, six or eight feet long, with the ends knotted together to make a loop of it, will keep the cow from switching her tail provided it is placed over the hips of the animal and allowed to extend down over the tail to the udder. I have fastened a piece of binding twine in the switch of the cow's tail and at milking time tied her tail to one leg of the cow. The fellow who tied the cow's tail to his own leg while milking discovered his mistake after the animal had pulled him through two or three wire fences and out into the pasture. These little items will be greatly appreciated by the cows and their milkers.

Illinois.

W. H. UNDERWOOD.

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POULTRY AND BEES

WET VS. DRY MASH IN WINTER FEEDING.

In an article last winter I agreed to give the results from my flock of hens fed on dry mash, as against the previous winter's work on moist mash as the morning feed.

The periods covered by the figures given below are Dec. 1, 1908-July 1, 1909, and Dec. 1, 1909-July 1, 1910, the results for the former, or wet mash, period appearing on the left and those for the latter, or dry mash, period on the right:

Eggs Gathered.

No. pullets, 221.	No. pullets, 190.
Dec., '08 1,351	Dec., '09 1,232
Jan., '09 2,140	Jan., '10 1,653
Feb., '09 1,542	Feb., '10 1,517
Mar., '09 1,991	Mar., '10 1,851
April, '09 2,406	April, '10 1,865
May, '09 2,356	May, '10 1,799
June, '09 2,010	June, '10 1,564
Total 13,796	Total 11,481
Av. per month, 1,970	Av. per month, 1,640

Selling Value.

Dec., '08 \$46.32	Dec., '09 \$40.17
Jan., '09 61.93	Jan., '10 47.71
Feb., '09 38.74	Feb., '10 36.89
Mar., '09 39.34	Mar., '10 43.00
Apr., '09 50.57	Apr., '10 37.29
May, '09 47.49	May, '10 35.30
June, '09 42.39	June, '10 33.06

Total \$326.78 Total \$273.42

Feed Cost.

Dec., '08 \$20.73	Dec., '09 \$25.26
Jan., '09 30.27	Jan., '10 27.21
Feb., '09 25.75	Feb., '10 26.82
Mar., '09 23.95	Mar., '10 23.69
Apr., '09 21.90	Apr., '10 23.65
May, '09 29.70	May, '10 30.69
June, '09 38.66	June, '10 24.78

Total \$200.96 Total \$182.10

By a little figuring it will be seen that the feed cost per month on the average for 1908-'09 was \$28.70, and the monthly feed cost per hen was 13c for the seven months. For 1909-'10 the average monthly feed bill was \$26.01 and the feed cost per hen was 13.6c.

The average monthly egg production for 1908-'09 was 1,970, or 8.9 eggs per hen. For 1909-'10 the average egg production was 1,640 a month, or 8.6 eggs per hen. Of course this egg record looks small, but I would say that it covers the hatching period, when 50 or more were either sitting, or caring for chicks, but as comparatively the same number were set each year, and the same number of chicks fed, the comparison for the two years is as accurate as one could get without following out all details as the experiment stations do.

I could note no difference in the health of the flocks, and the loss was about the same each year.

The results seem to indicate very little advantage of one mash over the other so far as production, cost of feed and profit are concerned, so about all that is saved is the labor of mixing the moist mash, which, of course, is considerable. Another thing I like about the dry mash is that it gives the hens something to pick at and keeps them out of mischief, whereas the moist mash is gobbled up at once. They will pick away at the dry mash when they would not scratch in deep litter after they had filled up on moist mash.

I shall continue the use of the dry mash for the regular feed, but I think a moist mash occasionally, as a relish, would perhaps stimulate egg production a little.

Maine. D. J. RYHER.

FINDS "CRACKNELS" a FAIR SUBSTITUTE FOR MEAT.

Regarding the feeding of "cracknels" or scraps left from rendering lard, I would say that I feed one ration a day of mash or mixed feed, consisting of wheat bran, middlings and some kind of grain—cracked corn, wheat or buckwheat. When the lard scraps are used they are chopped fine and mixed with other ingredients of this ration. However, they are used sparingly, as too large an allowance is worse than none. They take the place of meat very nicely, but when neither meat nor scraps can be obtained I have added a few spoonfuls of melted lard to the mash, but like the scraps, it must be used sparingly.

I think the next best substitute for meat is sour milk. I was enthusiastically championing its use a few days ago when a lady present declared that she never had good results from feeding it as she thought it was inclined to be too loosening. However, I have used it for years in connection with the mixed feed and there is nothing the fowls seem more eager for. I make cottage cheese occasionally for a

change, using the whey in mixing the feed. This has a tendency to obviate the trouble complained of.

Oceana Co.

J. M. W.

WORKING INTO BEE-KEEPING.

Bee-keeping, for those inclined that way, is certainly a well paying business, as there is less competition in raising bees and producing honey than in any other side line of farming. Last spring I installed 12 stands of bees in my orchard and hope to become a successful raiser of these industrious little workers. I recently made a visit to another part of the county to see a professional bee-keeper and his bees, and to get whatever advice from him he would be willing to give. I found him a pleasant and agreeable gentleman, willing to divide his knowledge and experience with anyone. This is about what he told me:

Any good, honest, bee-keeper can build up a market and hold it for his own if he will take pains to convince his customers that he sells nothing but pure clean honey, nicely put up. When this has been accomplished they are not likely to change to someone else even though a lower price is quoted. It is best to have one price and stick to that price throughout the season. However, there are slipshod members of all professions, and bee-keeping is no exception to this rule. These slipshod bee-keepers will bring in their poor grade of honey, untastily put up, the sections quite often broken, the honey smeared over them and sometimes travel-stained. They will offer such honey at lower prices than the careful bee-keeper can afford to sell for, but this makes little difference with the regular customer, for the discriminating consumer is not so easily fooled, and he will purchase from the man who offers good, clean, pure honey. Education along this line is gradually driving the slipshod honey producer out of the country, but should this kind of competition be met it is unwise to lower the price of good honey to meet the price of the inferior product, for as soon as the careful bee-keeper's honey becomes known, and its superior quality has been recognized by the consumer, it will easily command the advanced price.

The man referred to caters to home trade, and this he divides into two parts, selling part of his output direct to the consumer and part to local merchants. He so handles it that the one does not interfere with the other. When selling to the merchant for cash he gives a discount sufficient to allow the merchant to retail to the consumer at the bee-keeper's retail price. If payment is taken in goods, the retail price is expected.

In order to become a successful bee-keeper it is necessary to acquaint yourself with the different families of bees and their requirements. This man raises buckwheat and red clover for his bees, and while they gather the nectar from those blossoms they also gather considerable honey from other blossoms, such as the alder, apple and hollyhock, also from various wild flowers growing in the meadows and fields. In selecting bees I chose the Italians as they are considered the gentlest and easiest handled, and are equal, if not superior, to other kinds for honey making.

Illinois. L. G. JOHNSON.

FOR THE SUPPRESSION OF FOUL BROOD.

The State Dairy and Food Department last month issued a little circular, addressed to the bee-keepers of Michigan, asserting its readiness to co-operate with bee-keepers in suppressing the disease known as foul brood. Any citizen, whether directly interested in bee-keeping or not, who has knowledge of the existence of this disease in a Michigan apiary, is requested to notify the Department as promptly as possible. Where uncertainty exists, samples of the suspected comb may be sent to the entomologist at M. A. C., or to the Bureau of Entomology at Washington for examination. The responsibility for holding this disease in check was imposed upon the Dairy and Food Department by the legislature of 1901, the law providing for the appointment of an inspector of apiaries. Such inspector is required to visit any and all apiaries in which foul brood is believed to exist and to give the owners or caretakers full instructions for treating infected colonies. If a second visit shows no improvement in conditions he may burn all colonies of bees and combs which are harboring the germs of disease.

Silence!



The instinct of modesty natural to every woman is often a great hindrance to the cure of womanly diseases. Women shrink from the personal questions of the local physician which seem indelicate. The thought of examination is abhorrent to them, and so they endure in silence a condition of disease which surely progresses from bad to worse.

It has been Dr. Pierce's privilege to cure a great many women who have found a refuge for modesty in his offer of FREE consultation by letter. All correspondence is held as sacredly confidential. Address Dr. R. V. Pierce, Buffalo, N. Y.

Dr. Pierce's Favorite Prescription restores and regulates the womanly functions, abolishes pain and builds up and puts the finishing touch of health on every weak woman who gives it a fair trial.

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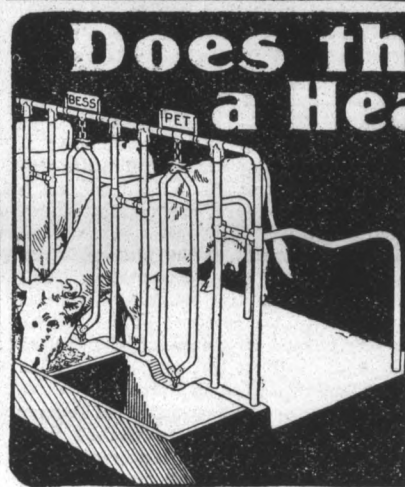
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Does the Cows a Heap of Good

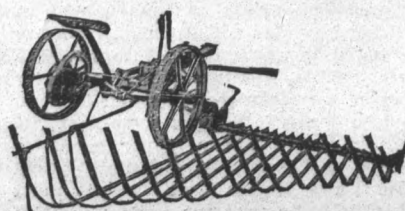
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HORTICULTURE

SOD MULCH VS. CULTIVATION FOR APPLE TREES.

The young apple trees on the hillsides which are mulched with strawy manure are making a good growth this season and the foliage appears quite vigorous and green. While they are not quite as large as those growing on cultivated ground set at the same time, two and four years ago. I believe they are holding their own this season and with good care in the way of supplying plenty of mulch they may be as far along as the cultivated trees soon.

I have noticed that the trees on cultivated ground were troubled less with worms' nests and grasshoppers, which is some advantage, and it seems likely that there would be fewer places for the codling moth to winter where the ground is kept cultivated. There is, however, more danger of injuring the trunks of the trees or breaking branches in cultivating the ground, as help is often careless about this, and a few injuries each year will make a great many after awhile.

As for the labor required to grow a young orchard by each method there is no great difference between a thorough system of mulching and the cultivation-cover crop method, though I think the difference is in favor of the mulch. Circumstances will make much difference with this also, as in some places it would be impossible or too expensive to get mulch enough for a large orchard. Where there is straw to spare, marshes that can be mowed for the purpose, or strawy manure that can be procured nearby the cost will be less than clean culture, but where mulch materials are expensive the reverse might be the case.

As for the soil it would seem that with the mulch method it would become richer continually, as nothing is being taken off, and mulching is being hauled on each year. As this mulch spreads outward more and more of the ground receives a coat of vegetable mould, which should bring it in a good state of fertility by the time the tree reaches a bearing age. If the grass which is mown is left on the ground this makes a partial mulch, but I think better results will be obtained if in addition to this other, mulch is applied. In fact, we have used the grass for hay for a few years and hauled in coarse manure, believing this to be cheaper.

Calhoun Co. S. B. HARTMAN.

TIMELY TOPICS FOR THE GARDEN.

The Cabbage Worm.

There are many remedies more or less effective; but sometimes it seems that in spite of all efforts against them they keep right on as though nothing had happened. One of the best of the simple remedies and very easy of application is good wood ashes and salt; two parts of the former to one of the latter. I prefer the best quality of table salt to the coarser kinds, and if applied in the early morning while the plants are still damp it will generally terminate their engagement. However, rains will wash off the application, and reinforcements may be expected at any time so constant watching is necessary. Both the salt and ashes are excellent fertilizers and the former is especially helpful in heading and hardening up of the heads. The salt will often discolor the leaves, even to turning them black where too much of it adheres, but it will do very little, if any, harm and so frequent applications are recommended. Tobacco dust is also a good remedy, both as a fertilizer and insecticide but is not easily obtained except of the seedsmen or at the tobacco factories. Some writers of very considerable reputation have strongly advocated the employing of boys with nets to capture and destroy the millers. Our judgment of this plan, however, is, that an active boy chasing through the patch with his net, intent upon capturing the miller would knock more plants than the worms would destroy.

Many have objections to using the arsenical poisons, but we believe when judiciously used no possible harm can come, either from Paris green or arsenate of lead. The former may be used either as a dry or spray mixture. In using the dust application, a convenient plan is to use a rounding teaspoonful of the Paris green to a quart of rye or wheat flour. Mix thoroughly and put it into a tarleton bag. It should be applied in the early, still morning while the dew is on, by shaking lightly over the plants. If used

as a spray mixture, a weak solution say, one pound to the hundred gallons of water will be strong enough. Arsenate of lead will only require about half the strength for potatoes. The smooth, glassy surface of the cabbage leaf does not readily hold spray mixtures of any kind but this can be remedied by using soapy water. Even quite strong suds will do no harm.

Wayne Co.

J. E. MORSE.

CUCUMBER GROWING.

I promised Michigan Farmer readers to keep them in touch with our success at growing cucumbers. If the weather keeps as dry as it has been since they reached bearing age there will not be much to tell. We have picked over the patch every second or third day since August 1, getting from two to three bushels to a picking. The picking costs just about one-half of the receipts, so it will be seen that we are not getting much for the care and marketing as yet. With plenty of rain the results might be different, but we must take things as they are, not as they ought to be. There is one thing about the cucumber crop that is a redeeming feature and that is that the receipts come in as the crop is harvested and if it does not pay the cost of harvesting we can quit and not have much labor tied up in the crop, while with a crop like potatoes we may pay a good price for the seed, grow them with care, harvest them, store them for the winter and then sell for less than the seed cost as was the case last year. At least there is no chance to do so much speculating with cucumbers, which is probably an advantage for us farmers who don't know how to speculate.

Calhoun Co.

S. B. H.

GREENHOUSE MEN AT GRAND RAPIDS.

The third annual convention of the Greenhouse Vegetable Growers' and Market Gardeners' Association of America will be held in Grand Rapids Sept. 27-29. This is one of the most important conventions of the year to be held in Michigan and will attract hundreds of glass farmers and market gardeners from many different states.

Grand Rapids is an interesting place to visit, having more than a million dollars invested in glass farming. There are 60 greenhouse plants in and near the city, 37 of which are devoted exclusively to vegetables, 14 exclusively to flowers, and in the remainder both flowers and vegetables are grown. Grand Rapids growers have more than 50 acres under glass and over 300 additional acres under cultivation.

The full program as arranged will be as follows:

Sept. 27, 9:00 a. m.—Opening by Pres. C. W. Wald, New Castle, O.; address of welcome, Mayor Ellis; response, Prof. W. R. Lazenby, Columbus, O.; president's address and reports of officers; "Results of Local Organization," Floyd J. Zuck, Erie, Pa.

Tuesday Afternoon.—"Use of Greenhouse to Start Plants for Outdoor Crops," W. J. Ritterskamp, Princeton, Ind.; "Outdoor Irrigation—when Practicable," H. F. Chester, Cleveland, O.; "Relation of Commercial to Small Grower," W. H. Weinschenk, New Castle, Pa.; "Pointers on Onion Growing," Prof. A. McMeans, N. Dakota Agricultural College; "Treatment of Greenhouse Soils for Continuous Cropping," Prof. W. J. Green, Wooster, O.; "Kind of Seeds Market Gardeners Should Grow for Own Use," J. Vernon Sheap, Jackson, Mich.

Tuesday Evening.—"Some Diseases of Forcing Tomatoes," Prof. Thos. Gunson, M. A. C.; "Notable Truck Farms and Market Gardens," Prof. R. L. Watts, state college, Pa.; "Work of Virginia Truck Experiment Station," Prof. T. C. Johnson, Norfolk, Va.

Sept. 28, 9:00 a. m.—"Large or Small Package, which?" J. N. Draper, Springfield, Mo.; "Are Transportation Rates Just?" J. H. Rice, Ashtabula, O.; "Selling to Consumer Direct," A. Shirer, Dayton, O.; "Selling to Retailer," L. B. Pierce, Tallmadge, O.; "Selling to Commission Men," R. F. Diger, Chicago.

Wednesday afternoon.—Given to visiting places of interest in and around Grand Rapids.

Wednesday evening.—Annual Banquet. Thursday morning.—"Heating and Watering in Winter in Greenhouses," B. H. Thorne, Wooster, O.; "Different Methods of Firing Greenhouse Boilers," C. D. LeVan, Sanborn, N. Y.; "Muskmelon Culture," J. S. Brigham, Bowling Green, O.; "How Can Early Outdoor Tomatoes be Made Profitable?" Prof. W. F. Massey, Salisbury, Md.; "Market Gardening in Columbus," Prof. Wendell Paddock, Columbus, O.

Thursday afternoon.—Committee reports. Election of officers. "Points on Greenhouse Construction," E. A. Dunbar, Ashtabula, O.; "Celery Culture," R. H. Garrahan, Kingston, Pa.; "Recent Investigation in Pollenization of Tomatoes," Prof. O. I. Gregg, M. A. C.; "Methods of Operating Eastern Market Garden," Prof. H. F. Thompson, Attleboro Mass.



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The Lawrence Pub. Co.,
Detroit, Mich.

DETROIT, AUGUST 27, 1910.

CURRENT COMMENT.

This year Michigan's fair season, so far as the big fairs are concerned, will open at Grand Rapids. The West Michigan Fair, which will be open Sept. 12-16 inclusive, occurs the week before the State Fair, which will be held at Detroit Sept. 19-24, inclusive. This advancement of the date of both fairs should add to the patronage of each, since wheat seeding will be well advanced before these dates and the farm work will not crowd as badly as it would during the first two weeks in September, which has been the date of these big fairs in recent years. It should not be necessary to call to the attention of our readers the advantages which will accrue to them as a result of attending these big agricultural fairs. The advantage to be gained by those interested in any line of production through industrial expositions is now so well understood and appreciated that events of this nature are becoming common in many lines of production. The big automobile shows, which are an annual attraction in the large cities of the country which are centers in the production or marketing of this modern commercial product, are an illustration of this fact. The more comprehensive industrial expositions, such as the one recently held in Detroit for the purpose of showing the residents of, and visitors to, the city, what Michigan's metropolis is producing in the way of commercial manufactures illustrates the same point. For the benefit of specialized agriculture we have the International and other great live stock expositions, the National Dairy Show, the National Corn Exposition, etc., all of which are exemplary of the benefit of industrial or trade expositions to the people who are interested in special lines of production. And all of these are liberally patronized by those whose business, or some phase of whose business, they represent. But not one of them is so broad in their representative character or so helpful to their patrons as the great agricultural fairs of the state to the farmers of the state who patronize them. At these fairs will be gathered the choicest products of the soil, the most perfect examples of the skill of the breeder and feeder, the most perfect product of the brain of the inventor and the skill of the manufacturer in the way of labor-saving devices for use upon the farm, with other

educational and entertainment features thrown in which make attendance a source of pleasure as well as profit. But far too many farmers fail to appreciate the profit which may be derived, from an educational standpoint, through attending the big agricultural fairs. Such a fair is an encyclopedia of information in the form of results. Results are what we are laboring for, so let us go to the big agricultural fairs which represent the best types of production, primarily to study the results which our most successful producers are getting. Incidentally we will get sufficient entertainment to repay us from this standpoint alone, but we cannot afford to miss our great trade expositions in which every department of our business is represented and which afford us such interesting and profitable object lessons of an industrial character.

The interest which is being taken in the building of permanent roads in many sections of Michigan makes any facts relating to the relative value of different materials of particular interest to all who are personally interested in the problem of building permanent roads. Most of the permanent roads which have been built under the Michigan state reward road law have either been made of gravel or have been macadam roads. In the building of the latter type of roads crushed limestone has been largely used because it is cheaper than other available materials in many sections of the state, although in a few localities the native field stone have been crushed and used for the purpose and in a few localities favorably located as to the source of supply trap rock has been used. The latter material is conceded by experts to be the best for road building but limestone roads have been considered sufficiently permanent to make their construction a profitable investment. It seems, however, that experience has demonstrated that limestone roads do not wear well and that after one or two years they begin to show wear from the grinding of the material into dust and from the effect of the weather upon the material. In Indiana, where limestone roads have been in use longer than they have in Michigan, the problem is said to be a rather serious one, and our own state highway department is now discouraging the building of limestone roads on account of their poor wearing qualities. Gravel roads, where built in accordance with state specifications are giving good service and, cost considered, are perhaps as satisfactory as any permanent improvement which can be made in highway construction, especially where the gravel is available near the site of such improvement. The solution of the problem of building permanent roads is progressive and the result of these earlier experiments in road building will be valuable in the future. The latest type of permanent road, which has been adopted by the Wayne County Road Commission for the improvement of the main roads within the county which radiate from Detroit, is the solid concrete road. The concrete is laid in solid blocks the width of the roadbed and about the same length and of sufficient thickness to stand the strain of traffic over them. Several pieces of this type of road were constructed last season, and all have stood the traffic well, showing practically no wear with a year's use. This type of road is more expensive than the macadam road, but it seems likely to prove much more permanent, in which case its greater durability and the elimination of the repair bills which seem inevitable with macadam roads, especially where limestone is the material used, may make them more economical in the long run.

In the study of co-operation among farmers, the experience of the farmers of European countries is valuable. The methods used and the trend of co-operative effort as followed by them may not be adapted to American conditions, yet their success certainly holds for us a valuable lesson. Frequent reference has been made in these columns to the successful co-operative enterprises of the Danish farmers. But Denmark is not the only European country in which co-operation among farmers is successfully carried on. Co-operative marketing and to some extent co-operative buying, is carried on in France through agricultural associations, which, according to a recent report of Consular Assistant Mason, of Paris, are growing in number and prosperity. He states that during the last 25 years an extensive movement toward the organization and co-ordination of ag-

Co-Operation in France.

ricultural interests has taken place in France. The principal aim of the agricultural syndicate is to enable the small farmer to purchase or dispose of his supplies as advantageously as his more important competitors and to encourage a number of social movements toward the betterment of the rural population, such as the establishment of insurance or credit societies. For a small commission, never exceeding three per cent, they sell, purchase, or exchange the products and supplies of their members. The influence, scope and importance of these societies have extended rapidly since their inception and they have been an important factor in the present prosperous condition of French agriculture. The French government has contributed largely to this prosperous condition through services rendered by the Department of Agriculture, by education, by experiment, etc., and by the loan of considerable sums at a low rate of interest to agriculturists. Up to the present time some \$66,106,000 has been loaned to 125,000 farmers.

HAPPENINGS OF THE WEEK.

Foreign.

Official information indicates the closing of the revolutionary conflict in Nicaragua with Estrada and his forces victorious. On the 18th his troops affected a crossing of the Tipitapa river which commands the city of Managua. About the same time Granada the most important place on the Pacific coast was taken by his soldiers. This caused a general stampede in the ranks of Dr. Madriz and a rapid retreat to the border is now in progress. The United States was favorable to the victorious party since the Madriz element was pitted against American interests.

The annexation of Korea to Japan is to be completed this week. No official announcement regarding the agreement is yet published. The Koreans are, as a people, ignorant of the transaction. The authority was given Japan by the Portsmouth treaty, which closed the war with Russia, giving her the guidance, protection and control on the Hermit nation. There appears to be a general belief that under the new order of things the people will be benefited and will be allowed greater personal freedom and be better protected in property rights than before. For this reason and because the peninsula has been well policed, little if any trouble will likely result from the change.

Because it is unconstitutional, the United States is now interfering in the matter of electing Dr. Mendoza vice-president of Panama. He is now acting president.

Elections will be held in Portugal on the 28 inst. There is being waged a bitter campaign between the progressives and the conservative elements. It is reported that the clericals are preparing for a general revolution in which they hope to overthrow the present government, establish a military dictatorship, crush out the republican element and place themselves in power. The republicans who are the progressives are equally vigilant and are taking no chance with the situation. Arms and ammunition are being imported from Spain in large quantities.

Six persons were killed and four injured as the result of an explosion on a gasoline ferry boat plying between St. George and Sandy Point, Newfoundland.

President Montt, of Chili, who visited this country a fortnight ago, died at Bremen, Germany, August 16. He had not been enjoying good health, which, with a shock caused by witnessing the attempted assassination of Mayor Gaynor, of New York city, with whom he had been speaking but a minute before the tragedy brought the end quickly. Out of respect for the executive flags were placed at half mast in the District of Columbia.

The cholera epidemic which has been taking the interest of Italian people for the past fortnight, resulting in many deaths and a long list of cases in the southern provinces of that country, is apparently coming under control as the number of outbreaks is greatly lessening and the daily death list is far smaller than a week ago.

The Canadian National Apple Show will be instituted at Vancouver, B. C., Oct. 31 to Nov. 5, 1910.

National.

The census figures for 1910 gives the population of Detroit as 465,766. This is 63 per cent greater than the population in 1900.

Mayor Gaynor is reported out of danger and the physicians state that it is merely a matter of days when the executive of America's metropolis will be about again.

A peculiar disease is affecting children from two to ten years old in Hillsdale county, Michigan. Local and outside physicians have been called in to diagnose the disease but thus far no one has been able to tell what it is. It is generally believed to be some form of infantile paralysis. In the past few weeks four or five deaths have occurred from the malady and many other cases are reported. Some are recovering.

The state telephone law which exempts companies having an income of less than \$500 per year from taxation, has been upheld by the attorney general in a recent decision, holding that as a tax is for the purpose of collecting revenue the exemption was proper in as much as it would cost more to collect from the small companies than the state would secure.

At Knoxville, Tenn., will be held an exposition from Sept. 12 to Oct. 12, the purpose of which will be to exploit the advantages of that part of the Appalachian region.

The aviation meet to be held in Bos-

ton in the early part of September, promises to be the greatest yet held on this side of the Atlantic. Dirigible balloons will not be entered in the contests to be held.

The movement of freight over the great lakes for the first six months of the year is larger than for any previous six months, aggregating 30,448,063 tons. Iron ore and soft coal lead in the increase while lumber and grain fall short of other records.

Several former officials of the Illinois Central railroad were arrested in connection with an alleged grafting swindle against the road. Detectives working on the case state that others are concerned and will be taken into custody as soon as hands can be placed upon them.

It is believed that 200 men of the forestry service who have been fighting fire in Idaho, are dead, with the exception of 20 who were rescued. At Wallace, Idaho, 24 persons are reported dead and many others injured in attempting to save lives and property. It is estimated that the loss in that city amounts to around a million dollars. Other sections are suffering, and the fears of settlers will only be abated after general rains. Students of the forestry department of the Michigan Agricultural College have been sent to this region to aid in fighting fires, and much apprehension is expressed lest they be among the victims.

The fifth annual gathering of the dry-farming congress will be held at Spokane, Washington, October 3-6, 1910. A comprehensive program in charge of noted dry-farming specialists is awaiting those who attend.

CROP AND MARKET NOTES.

Genesee Co., Aug. 20.—Nice showers have given late crops another chance. Pastures also will be benefited. Dairymen all feeding heavily of winter supplies. Those with silos are to be envied as the pasture situation does not interfere with the flow of milk with ensilage to draw on. Several new silos erected this season. Fruit prospects poor. This county, which formerly produced fine apples in abundance now grows not sufficient for local use. A few plums and grapes and a very few peaches the present year. Farmers beginning to sell surplus hay. Prices \$12@14 per ton; wheat, 98c; potatoes poor on account of drought.

Mecosta Co., Aug. 17.—Quite dry weather has prevailed for nearly two months; with just now and then a shower. The oat crop was almost a complete failure in most localities. Corn and potatoes look fine and with an occasional shower will be good crops. Stock looks well. Hay is quoted at \$9 per ton; oats, 40c; rye, 65c; wheat, 95c; apples, 65c; potatoes (new) 75c; eggs, 16c; butter, 20c for dairy, and creamery 27c.

Shiawassee Co., Aug. 15.—Weather hot and dry with no rain for past ten days. Farmers busy threshing and plowing for wheat. Despite the discouragement confronting the wheat crop last spring the crop is yielding from 20 to 45 bushels per acre and the grain is of good quality. Many farmers sell their wheat crop as soon as threshed, believing they receive in the long run a better price. Oats are turning out well. Rye is also yielding above former years. The potato crop is somewhat backward on account of the summer drought, but is now taking on new life and promises a fair crop. Fruit of all kinds is very scarce and only a small yield is expected. New seeding is looking well despite the early dry weather. There will be very little clover seed on account of the dry season. A few farmers are putting on pasture a few cars of lambs preparatory for early fall marketing. No cattle as yet arrived for feeding. Horses selling at a high figure. Cows are very high and command from \$40 to \$80 per head. The sugar beet crop is looking poorly.

Kent Co., Aug. 20.—The crop situation for August may be covered in one short sentence, too dry. Lack of moisture and heat has shortened all crops, more in some sections than in others, yet the general crop situation continues fairly up to the average. Potatoes and beans cannot be fairly estimated at this time as time and weather conditions are liable to bring a decided change before maturity. New seedings are fully 75 per cent of a stand and are now improving. Market remains quiet and unchanged. Stock is not moving any to speak of.

Lapeer Co., Aug. 14.—Harvest completed and threshing in progress, wheat yielding from 20 to 24 bu. per acre. Farmers raising less rye and more wheat than formerly. More barley was sown last spring than for several years. The corn crop is spotted, some fields poor and some promising an extra good crop. Some fields were neglected during harvest on account of a scarcity of help. Pastures short and supplementary feeding necessary on some farms. Beans doing finely, although some fields are weedy. Berry crop very short. Apples have dropped badly, but fruit specialists who have properly cared for their orchards will have a fair yield of apples and a good crop of peaches. Potato crop promises well. New seeding of clover not as good as might be desired, but with occasional rains it may improve and make a good stand. Second growth of clover came on rapidly and there is fair promise for clover seed. Hogs and pigs scarce. Farmers here will sow a comparatively large area of wheat this fall.

Iosco Co., Aug. 11.—The weather has been very dry for the past three weeks. We were relieved by a nice rain on Aug. 9 and 10, which did much good. Crops are all looking good with the exception of potatoes, which are a very poor stand. In the writer's field the stand was lessened considerably by a little white worm about an eighth of an inch long which ate up through the heart of the stalk. Grain threshing progressing well with wheat turning out about 25 bushels to the acre. Oats are nearly all harvested, with a fair yield of straw. Horses and cattle are still scarce and selling very high.

FARMERS' CLUBS

Address all communications relative to the organization of new clubs to Mrs. C. P. Johnson, Metamora, Mich.

Associational Motto.—

The skillful hand, with cultured mind, is the farmer's most valuable asset.

Associational Sentiment.—

The farmer, he garners from the soil the primal wealth of nations.

THE NEW DAY.

Toast responded to by A. R. Palmer, at the Home Coming meeting of Columbia Club, of Jackson county.

The new day is here and we do not half appreciate it. To be living in these times is a wonderful privilege. Some men have even said that their greatest reason for desiring to continue to live was that they might see the progress that the world makes. It is worth while to pause a little and pass in review some of the things that make this new day a wonderful day, that by calling them to mind we may the better appreciate our blessings.

To begin with, when we come into the world our chance of living is nearly doubled. Infant mortality is very much lessened, and medical science and especially surgery are doing much to prolong life and remedy many of the evils that mankind are subject to. We are more comfortably clothed and better sheltered. As an instance: I remember that as a boy with cowhide boots, I used to suffer when out in the snow. Rubbers and boots have changed all of that. We have much greater variety of food; whether it is better for us or not may be questioned; but the products of all climes are at our command.

In the matter of transportation, distance is almost annihilated. The three or six months once needed to reach the Pacific Coast is cut down to less than a week, and the long trip across the ocean to about six days. Even our local trips are greatly shortened and the auto for those that have it is making counties smaller than townships once were.

Machinery has made labor much easier. Few of the old muscle straining tasks remain to be done in the old way. In the home, fireless cookers and gas stoves give little occasion for talk about working over a hot stove. Butter is made in factories and the washing may soon be done in laundries.

Our lights are wonderful in their brilliancy compared with that which Abraham Lincoln studied by. We stand or sit in our home and talk with our neighbors ten miles away. We read each morning the happenings of the night before all over our land, and even on the other side of the earth. For a single cent we can send a paper with a marked message to a friend in Maine or California. Books, papers and magazines are plenty and cheap that we cannot read the half of what we have. Able speakers, teachers and lecture courses abound. Our schools teach us how to read and how to work also. Our problems are being studied for us; scientists are bringing to our aid the results of investigation everywhere. The world is being searched for new products that can be produced more cheaply or that are better adapted to some real or imaginary need.

Our love for the beautiful is fostered in a hundred ways. Pictures that would have been wonderful fifty years ago are so common that we scarcely look at them now. Compare the magazines today with the best periodicals of that day. Music and musical instruments everywhere. The wonderful phonograph, moving pictures, games, lake resorts, motor boats, excursions and ballooning for recreation. These are only a few of the glories of the new day. With them all to use and enjoy, are we any happier? Deprived of these things life would seem to us cheerless and hard, yet it is probably true that the sum of happiness in a life time does not vary much in one age from that in another.

But we do not want to go back to the old times and ways, and should be the happier if we appreciated our good things more, looked steadfastly on the bright side, and rejoiced in our living in this new day.

CLUB DISCUSSIONS.

Hold Young People's Meeting.—The Riverside Farmers' Club met Thursday, August 4, at the pleasant home of Mr. Lewis Lyons and sons. Nearly all the Club members and a number of invited

guests assembled on the spacious lawn and were entertained by selections on Mrs. Derr's phonograph. The program, which was in charge of the young people, was listened to with much interest and reflected credit upon those in charge. After the opening exercises the usual routine business was taken up. Mrs. Matthews thanked the Club for flowers sent her during her illness.

President Theron Kentfield had charge of the young people's part of the program, which consisted of recitations, music and papers, which were very well rendered and were much enjoyed. Miss Buckley's paper on "A Girl's Life in the West," gave a very good description of western life. Mr. Schaffer's paper, entitled "My First Year in High School," was well written and contained several amusing incidents of freshman life in high school. Lloyd Matthews gave some ideas against the practice of Sunday base ball. The Club extend thanks to the young people for the very creditable manner in which they entertained them. The September meeting will be a picnic supper at McCurdy park.

Hold Home-Coming Meeting.—Marion Farmers' Club held its home-coming meeting with Mr. and Mrs. A. R. Eastman, Thursday afternoon, July 28, seated in the pleasant grove in front of their house, and despite the counter attraction of the Detroit excursion there was a large attendance, and the weather was ideal. President Bucknell called the gathering to order. Following the opening exercises an excellent program was rendered. Melvin Hart recited a splendid poem on the glories of our country, that should be memorized by every pupil in our public schools, and Miss Gladys Gorton gave us a fine glimpse of college life at Alma. The venerable Linus Reed read an original poem retrospective and prospective which evoked considerable applause. Miss Louise Norton read an interesting paper on student life at Michigan Agricultural College, followed by a humorous recitation on the "Darkey and the Watermelon," by Miss Eva Clements. Pioneer reminiscences of the early days in the township were given by F. W. Munson, Miss Helen Norton, and Messrs. Linus Reed and J. W. Dickinson, who were among the first settlers in Marion, coming here with their parents in the '30s, while this region was almost a primeval wilderness, and their recitals were of thrilling interest, bringing before us the days of wolves, bears, deer, massasaugers and the "fever and ague" that our forefathers and mothers were quite too familiar with. Following these exercises ice cream and cake were served and everybody was glad to be there, and after a hearty vote of thanks to the host and hostess the assembly adjourned.

The Columbia Club's Home-Coming.—The Home-Coming meeting held on Saturday, August 13, at Oak Grove, the beautiful and inviting home of Mr. and Mrs. Frank Ball, was in all respects a most delightful meeting. The pleasant oak grove adjoining the home offered a most grateful abode from the heat of the day. Old friends greeted each other for the first time in many years and among all the spirit of kindly courtesy and sincere friendship which has been the dominant tone of the Columbia Farmers' Club for the past 23 years, everywhere prevailed. In the absence of President C. J. Harper, Dr. E. N. Palmer, at the request of the vice-president, Mrs. S. Ladd, took charge of the meeting. The roll call was responded to with "reminiscences." Many expressions of the pleasant meeting enjoyed in the past were presented. The first regular meeting of the Club was spoken of, which was held at the home of Dr. L. R. Cook. Mrs. Nora Brown reading there the first paper before the Club. The snow at the time was so deep the men were obliged to hold on to the sleighs as the horses waded the snow to get there. W. S. Culver greeted the company with hearty words of welcome and spoke of the benefit the Club had been to the farming community. In response W. F. Raven, of Lansing, spoke of the harmony that had always prevailed and that not only had it made better farmers but it had made better neighbors and life-long friendships had been established.

Glimpses of the Past.—In the absence of Miss Vina Hess, of Tucson, Arizona, who was to have furnished some "Glimpses of the West," Miss Pauline Raven, who has just returned from Dakota, spoke on the farm life as she had seen it. She said nearly all the larger ranches were being broken up and sold in smaller farms of about 200 acres. The drought there was severe, so much so that the wheat crop was considered a failure. She spoke of the opening up of the Indian Reservation west of Aberdeen and of witnessing a genuine round-up by the cowboys of the west.

Our Opportunities.—Mrs. E. A. Halladay, of Clinton, spoke on "Our Opportunities," saying, the embracing of every trifling opportunity to do a kind act or say a kind word builds for us a character both lovely and lovable and the neglect of the same is responsible many times for the barrenness of many lives. There grows a rose of exquisite beauty in the brambles of the Mississippi but is so covered by thorns that the traveler hesitates to gather them, but the native there will tell you that the thorns are harmless, and he who braves the briar to pluck the rose finds them pliable to the touch and a flower of unusual fragrance. The lesson of the rose is ours. Opportunities are offered to old and young alike, but in the same ratio, as we improve them in our youth do we enjoy them in our old age. After a bountiful supper was served on the lawn the company spent some time in further renewing old acquaintances with the guests that were present from many points in the state. The September meeting will be held with Mr. and Mrs. W. T. Parker.

GRANGE

Our Motto—"The Farmer is of more consequence than the farm, and should be first improved."

THE SEPTEMBER PROGRAMS.

State Lecturer's Suggestions for First Meeting.

"Give me the making of a nation's songs and I care not who makes its laws." Roll call, responded to by each member telling an anecdote about his birthplace. Book review of "A Man Without a Country."

Dr. W. J. Beal and his work at M. A. C.—a paper.

Select reading, "Who Cries Hard Times?"

Cement farm improvements, paper or talk.

Recitation (pathetic or humorous).

Drawing contest, as a surprise feature.

Singing "America" by audience.

Dialect songs throughout this program.

Suggestions for Second Meeting.

Pomona Day Program, prepared by Miss Nellie A. Mayo, Pomona of State Grange.

Music, selected by Pomona.

Reading "The Story of Johnny Appleseed."

Recitation, "When the frost is on the pumpkin, and the fodder's in the shock."

Paper, followed by discussion on "Small fruits for the small farm."

Talk by some fruit specialist.

Question, "Is there any practical way of protecting fruit from the late spring frosts?"

Short and informal talks on "Something I have learned about fruit, in cultivation, picking, marketing or preparing it for household use."

WHY ENCOURAGE JUVENILE GRANGES?—1.

In spite of the fact that I wrote upon this topic some weeks ago, its supreme importance urges me to a further word. If I am not mistaken, its relative value to the Grange movement is greater than we realize in our practice. For this reason let us look at the question, "Why encourage Juvenile Granges" from three standpoints: 1. Because the trend of human interest is childward. 2. Because country children need constructive thought put forth in their behalf. 3. Because the good the Juvenile Grange can do has been fully demonstrated.

First, then, the Grange needs to give more attention to the juveniles in its

fore, as one of the great means at work to lead the world to better things for every individual in it, the Grange has a responsibility in this direction which it can hardly escape. It is no vague part, either. The Grange's specific use is to assist in making life more attractive and more worth while to the people whose homes are in the country. That is a plain, practical proposition. It is a proposition that includes all the farm family. Unless boys and girls are socially satisfied and get the training that fits them to cope on fair terms with other people, as they grow up they will continue to leave the country for the city. In other words, if other organizations and societies are giving careful, thoughtful attention to the fullest possible development of its child life, rural life organizations must do the same—or lose their children when grown. This is one of the most distinct, definite problems now before the Grange.

JENNIE BUELL.

AMONG THE LIVE GRANGES.

Deer Lake Grange, of Charlevoix Co., reports that its lecture hour is one of its strong features and does more to help the Grange on to success than any other. At the last meeting of this Grange the membership contest between the Reds and Blues was concluded, the latter winning by a good margin.

Ironton Grange initiated three candidates and received two applications at its first August meeting. Over 50 members were present, an excellent attendance for a mid-summer meeting. That the good work is to continue is evident from the fact that leaders were chosen and other plans laid for conducting a spirited contest for new members. A capable degree team was also appointed.

Barnard Grange, of Charlevoix Co., is hustling and will make some needed improvements on its hall in the near future. At a recent meeting Bro. D. S. Payton gave a talk on the work of the West Michigan Development bureau and the exhibit at Traverse City. He also outlined the plan to organize a county board of trade which met with an enthusiastic response from the patrons present, all expressing themselves as satisfied that the work done by Bro. Payton and associates last year had been the most paying investment ever made for the county, and as ready to pay their share if a county board was organized.

Charlevoix Pomona's Annual Picnic, held at Ironton, was well attended and a success in every way. Field day sports added to the interest and pleasure of the occasion. Ironton Grange furnished the musical features of the program and Hon.



The Juvenile Grange at Pittsford, Hillsdale Co., Mich.

provinces because the trend of humanity is toward the child. On every hand more interest is being shown in the little child than ever before. Is this not evident in the effort made to fit the school to the real needs of the child; to secure such treatment of juvenile offenders of the law that, in the process designed for reformation, he shall not become thrice contaminated by vice; and to enlist parents in such observation and study of child nature as has never been known before? A physician who has given this matter some thought says, "This is a child's age. Our predecessors seemed to think the child period one to pay little attention to and hasten over. Gods and goddesses were hurled into existence full blown and developed—not embarrassed by childish remembrances. But the Great Leader saw differently when He said 'except ye become as little children ye cannot enter in.'"

The force of this last very familiar quotation is increasing everywhere. There-

H. F. Baker, member of the State Grange executive committee, delivered the principal address. His talk was devoted mainly to what the Grange had accomplished in the past through the power of organization, and what it is doing at present, closing with a tribute to the Grange as a fraternity.

COMING EVENTS.

Pomona Meetings.

Grand Traverse District Grange, at Long Lake town hall, Wednesday and Thursday, Sept. 7 and 8.

Grange Rallies and Fairs.

Clinton Co. Pomona rally, on the fair grounds, at St. Johns, Saturday, Aug. 27. Good literary and athletic programs.

Fifth annual fair of Crystal and Butternut Grange Fair Assn., in the Van Luevan building at Crystal, Thursday and Friday, Sept. 29 and 30.

ANY PICNICS?

We will be glad to publish the dates and place to be held of any picnics or farmers' gatherings of any kind, if those interested will let us know.

MARKETS

DETROIT WHOLESALE MARKETS.

August 24, 1910.

Grains and Seeds.

Wheat.—The trade has been a gradually declining one the past week until Tuesday when strength at Liverpool and fears of frosts in Canada where the spring wheat is not yet harvested, resulted in a sudden upturn in prices. Cash wheat worked to below a dollar on the local market. It is observed that farmers are not ready sellers where local elevators cannot pay them a dollar per bushel, and the receipts are being reduced; but compared with other seasons they are still heavy. Michigan farmers are particularly conservative about selling, founding their action largely upon the known shortage of spring wheat which they believe will give the market a bearish feeling as soon as the flush of fall selling is past. Northwestern millers are busy this week and flour is finding a good outlet. Liverpool was the chief factor in the better prices on Tuesday, she getting her strength elsewhere since the market here followed her lead. Visible supply increased three and three-quarter millions bushels. One year ago the price for No. 2 red wheat was \$1.07 per bu. Quotations for the past week are:

	No. 2 Red.	No. 1 White.	Sept.	Dec.
Thursday	1.01½	.99½	1.02½	1.06½
Friday	1.00½	.98½	1.01½	1.05½
Saturday	.99½	.97½	1.00½	1.05
Monday	.99½	.96½	1.00	1.04½
Tuesday	1.00½	.97½	1.01	1.05½
Wednesday	1.00	.97	1.00½	1.05½

Corn.—There is less selling of corn by farmers than at this time a year ago, there being a general feeling that the crop will not prove a big one, although there are places where good stands are promised; but mixed with these localities are others with poor stands which it is thought will bring the average down so as to make good prices probable. Rains have fallen in various places and improved the crop. The local market is slow and easy. One year ago the price for No. 3 corn was 72c per bu. Quotations for the week are:

	No. 2 Mixed.	No. 2 Yellow.
Thursday	65½	67½
Friday	65	67
Saturday	64	66
Monday	64	66
Tuesday	64	66
Wednesday	63½	65½

Oats.—Oat prices declined with those of wheat and corn. The offerings of oats were heavy the past few days and the visible supply has increased over three and one-half million bushels. The local trade has an easy tone. Threshing is in progress in Michigan. Some sections are having splendid yields while others are getting relatively as poor harvests. A year ago the price for standard oats was 39c per bu. Quotations for the week are as follows:

	Standard.	Sept.
Thursday	36½	36½
Friday	36½	36½
Saturday	36½	36
Monday	36½	36
Tuesday	36½	35½
Wednesday	35½	34½

Beans.—Nominal quotations for beans are higher following a general understanding that the beans are not filling as well as they might for the reason that rains have not come as copiously as is required by normal plants. The tone of the market is strong. No local transactions are reported. Quotations for the week are as follows:

	Cash.	Oct.
Thursday	\$2.35	\$2.15
Friday	2.40	2.15
Saturday	2.40	2.15
Monday	2.40	2.15
Tuesday	2.40	2.15
Wednesday	2.40	2.15

Cloverseed.—Prices have been fluctuating during the week, dropping 40c and then recovering most of the loss. Farmers are not generally looking for a large yield or even a fair one. Quotations for the week are:

	Prime Spot.	Oct.
Thursday	\$8.50	\$8.60
Friday	8.30	8.40
Saturday	8.10	8.10
Monday	8.25	8.25
Tuesday	8.40	8.40
Wednesday	8.40	8.50

Rye.—The market is easy and lower. The nominal quotation is 73c per bu., which is 1c less than the price of a week ago.

Visible Supply of Grains.

	This week.	Last week.
Wheat	22,362,000	18,582,000
Corn	2,678,000	3,017,000
Oats	8,025,000	4,428,000
Rye	263,000	221,000
Barley	705,000	884,000

Flour, Feed, Provisions, Etc.

Flour.—The flour trade is firm at last week's figures. Millers are active and are finding a good call for flour.

Clear	\$4.60
Straight	4.80
Patent Michigan	5.10
Ordinary Patent	4.90

Hay and Straw.—While figures are unchanged quite a strong undertone characterizes the hay deal. The quotations on baled hay in car lots f. o. b. Detroit are: No. 1 timothy, \$16@16.50; No. 2 timothy, \$15@15.50; clover, mixed, \$15@15.50; rye straw, \$7@7.50; wheat and oat straw, \$6.50@7 per ton.

Feed.—All grades steady with last week. Carlot prices on track: Bran, \$23 per ton; coarse middlings, \$24; fine middlings, \$27; cracked corn, \$27; coarse corn meal, \$27; corn and oat chop, \$24 per ton.

Potatoes.—Most of the states where potatoes are produced extensively report a short crop maturing. New Jersey ap-

pears to be the lone exception. Michigan growers report poor prospects. New potatoes are quoted at \$2.75 per bbl.

Provisions.—Mess pork, \$22; family pork, \$23@24; medium clear, \$23@24; smoked hams, 16c; dry salted hams, 14c; shoulders, 14c; picnic hams, 13c; bacon, 17@19c; lard in tierces, 13c; kettle rendered, 14c per lb.

Hides.—Steady. No. 1 cured, 10c; No. 1 green, 8c; No. 1 cured bulls, 9c; No. 1 green bulls, 7c; No. 1 cured veal kip, 10½c; No. 1 green veal kip, 9c; No. 1 cured calf, 14½c; No. 2 kip and calf, 13c; No. 1 horeskins, \$3.50; No. 2 horeskins, \$2.50; sheepskins, as to amount of wool, 25@75c.

Dairy and Poultry Products.

Butter.—Milk is scarce and consequently the creameries cannot get butter-fat to make butter; as a result prices are higher and dealers expect that they will soon make further advances. Quotations are: Extra creamery, 30c; firsts, do., 29c; dairy, 23c; packing stock, 22c per lb.

Eggs.—Another advance is chronicled in the egg trade. The output is decreasing and the demand continues strong. Some of the dealers are moving storage eggs. Fresh receipts, case count, cases included, are quoted at 20c per doz.

Poultry.—Poultry is being delivered in rather liberal quantities and the quotations are lower. Broilers and hens are off and now quoted at 15c; roosters and stags remain at 10c; ducks at 14@15c; geese are down to 10c, and turkeys are at 17@18c per lb.

Cheese.—Michigan, late made, 15c; Michigan, fall made, 17½@18c; York state, 17½@18c; limburger, old, 17@18c; Swiss, domestic block, 21@22c; cream brick, 16½@17c.

Fruits and Vegetables.

Apples.—Values steady. Supply is good. Duchess are quoted at \$3@3.50 per bbl., and common stock at \$2@3.

Cabbage.—Lower. Selling at \$1.50 per bbl. for new.

Blackberries.—Offerings scarce. Market steady. Selling at \$3.50@4 per bu.

Huckleberries.—Steady and scarce. Quoted at \$4@4.25 per bu.

Peaches.—Good peaches are hard to get. One-fifth bushel basket is quoted at 25c.

Tomatoes.—The receipts of tomatoes are liberal. Generally quoted at \$1.75@2 per bu.

Vegetables.—Beets, 75c per bu; carrots, 50c per bu; cucumbers, 20@25c; per doz; eggplant, \$1.25@1.50 per doz; green beans, 75c hamper; green peas, 75c bu; green onions, 10@12c doz; head lettuce, 75@90c per bu; mint, 25c per doz; parsley, 20@25c per doz; radishes, 15c per doz; spinach, 65c per bu; turnips, 40c per doz; watercress, 20@25c per doz; wax beans, 75c bu; plant, 20c per dozen.

OTHER MARKETS.

Grand Rapids.

Tuesday morning's market on the island was small on account of the rain. Fruit prices range as follows: Peaches, \$1.50@1.75; good apples, \$1.30; pears, \$1.35@1.50; plums, \$2@2.50; huckleberries, \$2.50. Vegetable prices are as follows: Butter and string beans, 85c; corn, 12@15c; cucumbers, 25c doz; celery, 15@18c; cabbage, 80c; tomatoes, \$1.80@2; beets, 50c; muskmelons, \$2.75; home-grown potatoes, 85c @ \$1. Hay is bringing \$17@18 per ton. Eggs are bringing 17½c, an advance of ½c over last week. Good dairy butter is 1c higher, bringing 24c; packing stock 21c. Creamery butter is 1c higher, bringing 30c. Wheat is off 2c, the mills paying 93c for No. 2 red and 92c for No. 1 white.

New York.

Butter.—Prices 1½c higher for best creameries, with market firm at the advance. Creamery specials quoted at 31½c; extras, 30½c; thirds to firsts, 24½@29½c. Eggs.—Market firm with prices showing a good advance. Nearby eggs are quoted at 28@32c; fresh gathered extras, 24@25c; firsts, 22@23c per doz.

Poultry.—Market weak and lower. Live quoted as follows: Western broilers, 16½c; fowls, 14@15c; turkeys, 10@14c lb.

Chicago.

Wheat.—No. 2 red, 99½@1.00½; September, 99½c; December, \$1.04½@1.05½c per bushel.

Corn.—No. 2 mixed, 61½c@61¾c; September, 60¾c; December, 58¾c.

Oats.—No. 3 white, 33½@34c; September, 34½c; December, 36¾c.

Butter.—Trade slow and market generally easy, although dairies are quoted 1c higher. Creameries, 24½@29c; dairies, 25@27c.

Eggs.—Market active and firm with the better grades showing an advance of 1c, while miscellaneous receipts have made a gain of 3c. Quotations are: Prime firsts, 21c; firsts, 19c; at mark, cases included, 14@17c doz.

Hay and Straw.—Market steady at last week's advanced figures. The quotations are: Choice timothy, \$22@22.50; No. 1 timothy, \$20.50@21.50; No. 2 do. and No. 1 mixed, \$19@20; No. 3 do and No. 2 mixed, \$15.50@18.50; rye straw, \$9@10.50; oat straw, \$7.50@8; wheat straw, \$6.50@7.50.

Beans.—All kinds have scored a sharp advance since this time last week. Choice hand-picked are quoted at \$2.70@2.72; fair to good, \$2.65@2.67; red kidneys, \$4.25@4.50 per bu.

Potatoes.—Values have declined nearly 10c in the past week due to an indifferent demand and an easier feeling generally. Quotations are: Choice to fancy new, 80@82c per bu; fair to good, 75@77c.

Wool.—Nothing new in situation, former prices ruling. Unwashed fleeces from all bright wool sections are quoted as follows: Fine heavy, 13@15c; fine delaine, 20@22c; fine medium, 22@24c; medium, 23@25c.

Boston.

Wool.—Restricted buying operations is the feature of the local trade but the undertone is firm at former prices. Even higher values are expected later on in the season. Following are the leading quotations for the week: Ohio and Pennsylvania fleeces—Delaine washed, A, 34c; XX, 30c; fine unmerchantable, 24@25c; ½-

blood combing, 28@29c; ¾-blood combing, 28@29c; ¼-blood combing, 27@28c; delaine 21c. Michigan, Wisconsin and New York fleeces—Fine unwashed, 19@20c; delaine unwashed, 26@27c; ¼-blood unwashed, 27@28c; ¾-blood unwashed, 27@29c. Kentucky, Indiana and Missouri—¾-blood, 28@29c; ¼-blood, 27@28c.

Toledo.

Clover Seed.—Clover seed closed 10c lower Tuesday, while alsike made a slight advance. Closing quotations were: Cash, \$8.70; October, \$8.50; alsike cash, \$8.65½; September, \$8.62½.

Elgin.

Butter.—The butter trade is firm at 30c, which is an advance of 1c over the quotation for last week. The output for the week amounted to \$27,400 lbs., compared with \$78,300 lbs. for the previous week.

THE LIVE STOCK MARKETS.

Buffalo.

August 22, 1910.

(Special report by Dunning & Stevens, New York Central Stock Yards, East Buffalo, N. Y.)

Receipts of stock here today as follows: Cattle, 160 cars; hogs, 9,600; sheep and lambs, 10,600; calves, 1,300.

With 165 cars of cattle on sale here today and 25,000 reported in Chicago, our market opened active and 15@25c per hundred weight higher on nearly all grades. At the close everything was sold, and prospects steady at prevailing prices. From this time on we expect to see a better market on all grades of strictly prime cattle.

We quote: Best 1,300 to 1,400-lb. steers \$7.50@7.85; good prime 1,200 to 1,300-lb. steers, \$7@7.25; best 1,100 to 1,200-lb. shipping steers, \$6.50@6.90; medium butcher steers, 1,000 to 1,100 lbs., \$5.50@6; light butcher steers, \$4.90@5.25; best fat cows, \$5@5.50; fair to good cows, \$4@4.75; common to medium do., \$3@3.75; trimmers, \$2.50@3; best fat heifers, \$5.75@6.25; good fat heifers, \$4.50@5.25; fair to good do., \$4.25@4.65; stock heifers, \$3.75@4; best feeding steers, \$5@5.25; medium to good do., \$4.25@4.50; stockers, all grades, \$4.25@4.50; best bulls, \$5@5.25; bologna bulls, \$3.75@4.25; light thin bulls, \$3.50@4; best milkers and springers \$5@6; common to good do., \$2.50@3.50.

With 60 cars of hogs on sale here today, our market opened 20@25c higher than Saturday, and closed strong at the opening with a good clearance for all that got yarded in time for the market. With light receipts here, and stronger prices in Chicago and light receipts there, it was easy to advance the market.

We quote prices as follows: Mixed, medium and heavy, \$9@9.20; light to good weight yorkers, \$9.40@9.50; pigs, \$9.50@9.60; few choice white ones as high as \$9.70; roughs, \$7.50@7.60; stags, \$6.25@6.75, mostly \$6.50.

The lamb market opened slow today and about a quarter of a dollar a hundred lower than last Monday, most of the best lambs selling at \$6.50@6.65. Yearling lambs, \$5@5.50. Look for about steady prices balance of week. Sheep were steady today and prospects are for about steady prices balance of week.

We quote: Spring lambs, \$6.50@6.65; wethers, \$4.50@4.75; cull sheep, \$2.50@3.50; bucks, \$2.50@3.25; yearlings, \$5@5.50; heavy ewes, \$3.90@4; handy ewes, \$4@4.25; northern Michigan lambs, \$6.25@6.40; veals, choice to extra, \$10@10.25; fair to good do., \$7.50@9.50; heavy calves, \$6@7.

Chicago.

August 22, 1910.

Cattle. Hogs. Sheep
Received today28,000 26,000 38,000
Same day last year.....24,325 26,726 29,631
Received last week.....63,380 112,919 120,345
Same week last year.....51,992 88,715 110,912

Cattle market opened in good shape this week considering liberal receipts of 28,000, and while medium and plain grades went 10c lower than high spot on the close last week, the good to choice beefs, including practically all of value above \$7.25 held an unchanged level. There was broad shipping and packer demand for the fat grades and fortunately a larger quota of choice steers was included in supplies than showed up in recent weeks. A liberal supply of choice beefs sold at \$8@8.45 and two droves landed at \$8.50, while a strictly prime class was quoted up to \$8.60. Biggest share of fat native steers sold at \$7.40@8, while cattle which went below \$7 were largely grass-fed grades. Range cattle supply was 9,000 and steady to firm rates prevailed for good westerns, best selling at \$7.15. Cow and heifer demand was strong, at \$3.50@4.65 for medium to good while choice corn-fed heifers made \$6@6.50. Bulls sold 10c higher at \$3.25@4.75 and calves were steady, bulk making \$8.25@8.75. Feeding cattle of good grade went at 10c advance, selling up to \$6, while medium and plain classes held last week's level, common stockers to good feeders selling at \$3.25@5. Hog receipts of 26,000 were below expected volume and prices advanced 10@15c, sales being highest in several weeks. Prime lights went up to \$9.20 and butchers at \$9.05, with choice heavy shipping at \$8.75 while mixed and heavy packing sold at \$8@8.40. Average weight last week was 254 lbs., two lbs. heavier than the week before and 24 lbs. above a year ago.

Sheep and lamb receipts were 38,000, an unusually big supply, but the same old aggressive demand prevailed for feeding stock and since a big share of the run comprised these classes there was free movement. Feeders held firm while fat lambs were 10c lower and ewes and wethers went 5@10c off. Feeders paid \$6.85 for choice range lambs and top to the packers was \$6.75. Wethers sold up to \$4.35 and fat ewes at \$4.25, while cull ewes ranged down to \$2@3. Plain and medium native lambs sold at \$5.50@6.25.

Market for steers in the past week pursued a sharply higher course in face of liberal supplies, although the run was a few thousand below the week previous. A rejuvenated demand for all classes effected a price boost of 25@50c for both natives and range stock and biggest share of fat steers showed 40@50c gain. Range cattle run continued only moderate and in face of a much improved situation east the market for both natives and rangers now is in such shape that it will require big runs to budge prices from present levels. However, the country seems in a state of uneasiness over the feed question, and such big price upshoots are deemed likely to bring out excessive receipts of plain and medium steers and cause reaction in the sales list. Choice beefs topped at \$8.45, but a prime kind was quotable up to \$8.60. Good native 1,150 to 1,400-lb. grades made \$6.85@7.65 and bulk of 1,050 to 1,250-lb. grassers and short fed kinds went at \$6.25@6.65 with poor lots down to \$5@5.90. Feeder cattle sold 10@15c lower with the exception of strictly good grades, the latter holding steady. Selected heavy feeders went up to \$5.75@6, fair to good 750 to 850-lb. lots at \$4.40@5.15 and the plain to good 550 to 700-lb. stock steers made \$3.60@4.25, with a poor class down to \$3.

Native cows are meeting strong competition from western rangers and prove second best sellers. Few went above \$4.50 last week and grassers mainly at \$3.25@4, with canners and cutters at \$2.25@3.10. Bulls sold at \$3@4.40 for common to good and veal calves made \$7.25@8.75.

Present situation in porcine trade forecasts an end to the packers' bear campaign. Although receipts are running 15 per cent heavier than a few weeks ago demand is broadening proportionately and prices are moving higher. Last week heavy packing and shipping grades advanced 25c over the previous week's level while lights and butchers sold up 10, and the average price at the close last Saturday was highest since July 29. The partiality for heavy packing grades is due to the fact that the killers are finding a much broader outlet for pork meats, both fresh and cured, while the higher market for provisions adds to the packing interest in the lard making hogs. Prediction is being made that before long the light weights, which have for weeks past been holding at a considerable premium, will lose it, and the choice heavy shipper kinds mount to the top of the list. Traders look upon this as the wrong time for prices to go lower in view of strength demands, and even though the supplies continue to increase inquiry for pork meats is expected to grow accordingly. It is largely an \$8@9 market for good heavy packing to choice light bacon grades, though fancy lights reached \$9.05 late last week. Rough heavy packing sold down to \$7.70 while mixed packing made \$8@8.30 and good butchers \$8.50@8.80. Pigs still met good call at \$8.50@9.

Sheep and lamb movement dropped off 10,000 last week compared with the week before, but there was still a liberal supply and fat lambs were forced 10@15c off, although the aggressive demand for feeding stock put these up to a basis that was much higher than the week before. Muttons, on the other hand, held at a strong basis. Packers have been receiving a big crop of native lambs from Kentucky, but this movement is now about finished, and the opinion prevails that lambs are due for a substantial advance. Feeder buyers are taking away from the packers everything which they can get and it is a serious bit of competition which is prevailing even for the 60 to 65-lb. range lambs. Feeders paid \$6.60@6.70 for bulk range lambs last week and up to \$6.85 for Californians, while at the close it took choice fat range lambs to command that price, although earlier in the week they topped at \$7 and prime natives reached \$7.10. Medium and plain natives went down to \$5.50@6.25 and a common kind below \$5. Montana and native wethers sold up to \$4.40, fat ewes at \$4.15@4.35 and culls at \$2.50@3.50. Feeding ewes went at \$3.90@4.15 and breeding ewes reached \$5.75.

Demand for big drafters and rugged feeders continues moderately good at stationary prices, but all other grades of horses are meeting poor general sale and the trade does not look for betterment until there is a renewal of liberal eastern orders for fall and winter use. The west is marketing with fair freedom while calling for a liberal number of good horses to feed for later markets. Eastern dealers are taking top grade drafters at \$250@275 and upward, but medium and good offerings clear at \$15@225 while plain kinds sell down to \$170. Feeders have asked at \$165@225 and plain good expressers at \$125@185. Good to choice drafters landed at \$185@275 with a plain kind down to \$110@125.

Feeder buyers' keen desire for fleshy steers to give a short feeding inducing them to pay \$5.75@6 for good quality 1,000 to 1,100-lb. steers in the Chicago market. Since a big corn crop is assured there is a rush of buyers and at these classes but the packers are finding their attempts to purchase a big supply. Range beef is not plentiful enough to suit the killers and to make up for lack of westerns they are competing freely against feeder buyers and running the prices for many cattle which really are feeder grades, up to a level the feeder buyer dares not equal.

The silo as an aid to beef production since the hay crop has run short this season is being given a big boost in live stock circles. Where hay is scarce and the farmers have silos they are in a position to have plenty of feed if they will use the silage in steer fattening. Experiments at college stations have shown that a ten-acre yield of corn in a silo will give the feeder the same beef gains as made from 20 acres of clover or timothy hay. This being true the absence of a silo on the farm seems about as serious a matter as shortage in the yield from the meadows.

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Present situation in porcine trade forecasts an end to the packers' bear campaign. Although receipts are running 15 per cent heavier than a few weeks ago demand is broadening proportionately and prices are moving higher. Last week heavy packing and shipping grades advanced 25c over the previous week's level while lights and butchers sold up 10, and the average price at the close last Saturday was highest since July 29. The partiality for heavy packing grades is due to the fact that the killers are finding a much broader outlet for pork meats, both fresh and cured, while the higher market for provisions adds to the packing interest in the lard making hogs. Prediction is being made that before long the light weights, which have for weeks past been holding at a considerable premium, will lose it, and the choice heavy shipper kinds mount to the top of the list. Traders look upon this as the wrong time for prices to go lower in view of strength demands, and even though the supplies continue to increase inquiry for pork meats is expected to grow accordingly. It is largely an \$8@9 market for good heavy packing to choice light bacon grades, though fancy lights reached \$9.05 late last week. Rough heavy packing sold down to \$7.70 while mixed packing made \$8@8.30 and good butchers \$8.50@8.80. Pigs still met good call at \$8.50@9.

Sheep and lamb movement dropped off 10,000 last week compared with the week before, but there was still a liberal supply and fat lambs were forced 10@15c off, although the aggressive demand for feeding stock put these up to a basis that was much higher than the week before. Muttons, on the other hand, held at a strong basis. Packers have been receiving a big crop of native lambs from Kentucky, but this movement is now about finished, and the opinion prevails that lambs are due for a substantial advance. Feeder buyers are taking away from the packers everything which they can get and it is a serious bit of competition which is prevailing even for the 60 to 65-lb. range lambs. Feeders paid \$6.60@6.70 for bulk range lambs last week and up to \$6.85 for Californians, while at the close it took choice fat range lambs to command that price, although earlier in the week they topped at \$7 and prime natives reached \$7.10. Medium and plain natives went down to \$5.50@6.25 and a common kind below \$5. Montana and native wethers sold up to \$4.40, fat ewes at \$4.15@4.35 and culls at \$2.50@3.50. Feeding ewes went at \$3.90@4.15 and breeding ewes reached \$5.75.

Demand for big drafters and rugged feeders continues moderately good at stationary prices, but all other grades of horses are meeting poor general sale and the trade does not look for betterment until there is a renewal of liberal eastern orders for fall and winter use. The west is marketing with fair freedom while calling for a liberal number of good horses to feed for later markets. Eastern dealers are taking top grade drafters at \$250@275 and upward, but medium and good offerings clear at \$15@225 while plain kinds sell down to \$170. Feeders have asked at \$165@225 and plain good expressers at \$125@185. Good to choice drafters landed at \$185@275 with a plain kind down to \$110@125.

Feeder buyers' keen desire for fleshy steers to give a short feeding inducing them to pay \$5.75

THIS IS THE LAST EDITION.

In the first edition the Detroit Live Stock markets are reports of last week; all other markets are right up to date. Thursday's Detroit Live Stock markets are given in the last edition. The first edition is mailed Thursday the last edition Friday morning. The first edition is mailed to those who care more to get the paper early than they do for Thursday's Detroit Live Stock market report. You may have any edition desired. Subscribers may change from one edition to another by dropping us a card to that effect.

DETROIT LIVE STOCK MARKETS.

Thursday's Market.

August 25, 1910.

Cattle.

Receipts, 772. Butchers grades active and 15c higher; cows and bulls steady.

We quote. Extra dry-fed steers and heifers, \$6; steers and heifers, 1,000 to 1,200, \$5.25@5.50; steers and heifers, 800 to 1,000, \$4.50@5; grass steers and heifers that are fat, 500 to 700, \$4@4.25; choice fat cows, \$4.50; good fat cows, \$4@4.25; common cows, \$3@3.75; canners, \$2.25@2.85; choice heavy bulls, \$3.75@4.25; fair to good bolognas, bulls, \$3.50@3.75; stock bulls, \$3@3.50; choice feeding steers, 800 to 1,000, \$4.75; fair feeding steers, 800 to 1,000, \$3.50@4; choice stockers, 500 to 700, \$3.50@3.75; fair stockers, 500 to 700, \$3.25@3.50; stock heifers, \$3.25@3.50; milkers, large, young, medium age, \$4@60; common milkers, \$25@35.

Bishop, B. & H. sold Kamman, 18 butchers av 790 at \$4.15, 1 bull weighing 520 at \$3; to Rattkowsky 5 butchers av 452 at \$3.40; to Sullivan P. Co. 1 cow weighing 900 at \$3.25, 3 bulls av 950 at \$3.75, 2 steers av 920 at \$5; 7 heifers av 550 at \$3.40, 1 do weighing 650 at \$3.50; to Hammond, S. & Co. 1 cow weighing 900 at \$3.75, 1 heifer weighing 740 at \$4.50; to Goose 2 do av 710 at \$3.50; to Sullivan P. Co. 1 bull weighing 1,190 at \$4, 2 do av 1,200 at \$4, 2 do av 740 at \$3.50, 1 cow weighing 1,000 at \$3, 1 do weighing 1,230 at \$4.50, 2 do av 800 at \$3.50; to Bresnahan 4 do av 812 at \$2.25; to Thompson Bros. 6 do av 900 at \$3.25, 4 butchers av 695 at \$4, 8 do av 590 at \$3.85, 1 steer weighing 740 at \$5, 11 butchers av 953 at \$4.80, 5 cows av 856 at \$3.60; to Newton B. Co. 2 do av 1,055 at \$4, 2 do weighing 925 at \$3.50, 6 do av 888 at \$3.70; to Sullivan P. Co. 2 steers av 1,045 at \$6, 1 bull weighing 1,250 at \$4.25; to Mich. B. Co. 4 butchers av 990 at \$4, 1 cow weighing 1,040 at \$3.25, 5 steers av 960 at \$5.25.

Spicer & R. sold Bresnahan 16 butchers av 490 at \$3.25, 1 cow weighing 1,080 at \$3.25; to Douglass 1 steer weighing 500 at \$4.75, 1 heifer weighing 670 at \$5, 2 stockers av 610 at \$4; to Sullivan P. Co. 1 bull weighing 1,120 at \$4, 2 do av 1,080 at \$3.90, 4 stockers av 500 at \$3.10, 6 steers av 835 at \$4.75; to Kamman 1 cow weighing 1,390 at \$4.25, 1 do weighing 1,100 at \$3.35; to Gerish 2 bulls av 1,010 at \$3.90; to Goose 8 do av 500 at \$3.25; to Breitenbach Bros. 31 butchers av 751 at \$4.25; to Brown 5 stockers av 540 at \$3.50; to Goodwin 8 butchers av 714 at \$4.25; to Parker, W. & Co. 30 do av 855 at \$4.50; to Kamman B. Co. 6 do av 843 at \$4.50, 3 cows av 1,020 at \$4, 1 do weighing 860 at \$4, 2 steers av 940 at \$5, 6 butchers av 820 at \$4.25, 1 cow weighing 920 at \$3.50; to Hammond, S. & Co. 1 bull weighing 1,010 at \$3.75; to Jonghlin 6 cows av 850 at \$2.85, 1 do weighing 800 at \$2.85; to Fuller 5 stockers av 568 at \$3.75; to Kull 24 butchers av 737 at \$4.50; to Fuller 20 stockers av 537 at \$4.25; to Jonghlin 1 cow weighing 1,000 at \$3, 3 do av 900 at \$3.50; to Kamman B. Co. 1 do weighing 1,090 at \$4.25.

Haley & M. sold Rattkowsky 6 butchers av 625 at \$3.90, 3 cows av 1,026 at \$3.60, 1 bull weighing 1,050 at \$3.85; to Goose 9 butchers av 641 at \$3.40; to Sullivan P. Co. 4 cows av 1,155 at \$4, 13 butchers av 950 at \$4.75, 13 do av 504 at \$3.60, 27 do av 750 at \$4.35; to Regan 16 do av 550 at \$3.75; to Parker, W. & Co. 5 steers av 830 at \$5; to Kamman 8 butchers av 581 at \$3.90; to Mich. B. Co. 2 bulls av 1,055 at \$3.75; to Schlicher 20 butchers av 533 at \$3.75; to Hammond, S. & Co. 1 cow weighing 1,150 at \$4.15, 1 do weighing 930 at \$3, 2 butchers av 560 at \$3.65, 3 do av 613 at \$3.65; to Lachalt 3 cows av 1,010 at \$4.25, 2 bulls av 665 at \$3.75; to Starrs 1 steer weighing 600 at \$3.75, 1 do weighing 670 at \$4; to Kamman B. Co. 7 steers av 860 at \$4; to Bresnahan 11 heifers av 561 at \$3.80.

Roe Com. Co. sold Rattkowsky 6 butchers av 696 at \$4.50, 1 steer weighing 800 at \$4; to Gerish 12 steers av 880 at \$5; to Hammond, S. & Co. 1 bull weighing 970 at \$3.75, 2 cows av 975 at \$3.50, 2 do av 1,000 at \$3.75, 25 steers av 862 at \$5, 29 do av 772 at \$4.50; to Rattkowsky 4 butchers av 637 at \$3.75; to Hammond, S. & Co. 3 bulls av 950 at \$4; to Mich. B. Co. 1 cow weighing 700 at \$2.25; to Regan 5 butchers av 450 at \$3.60; to Newton B. Co. 5 do av 644 at \$4.25, 8 do av 685 at \$4.25.

Bohm sold Mich. B. Co. 15 butchers av 800 at \$3.90.

Robb sold same 24 do av 846 at \$4.60, 1 bull weighing 980 at \$4, 3 cows av 970 at \$3, 2 do av 805 at \$2.25.

Johnson sold Kamman 5 butchers av 706 at \$4.25.

Terhune sold same 6 do av 808 at \$4. Bohm sold Gerish 6 steers av 1,028 at \$5.10.

Johnson sold Fronn 4 cows and bulls av 1,000 at \$3.65.

Youngs sold Marx 7 steers av 831 at \$4.70.

Veal Calves.

Receipts, 426. Market 25@50c higher than last week. Best, \$9@9.50; heavy, \$4@6; mediums, \$7.50@8.

Milch cows and springers steady.

Haley & M. sold Mich. B. Co. 7 av 145 at \$7.75, 3 av 225 at \$8.50; to Burn-

stine 5 av 160 at \$8.75; to Thompson Bros. 8 av 145 at \$7.50.

Roe Com. Co. sold Mich. B. Co. 5 av 150 at \$8.50, 4 av 150 at \$8.50; to Kull 13 av 155 at \$9; to Burnstine 6 av 165 at \$9.50.

Spicer & R. sold Mich. B. Co. 5 av 165 at \$8.25; to Douglass 12 av 150 at \$8.50; to Brant 3 av 120 at \$8, 1 weighing 170 at \$5, 3 av 165 at \$8.25; to Goose 3 av 175 at \$5.25, 4 av 250 at \$5.50; to Brant 5 av 165 at \$7.25; to Mich. B. Co. 5 av 150 at \$9, 4 av 155 at \$9, 6 av 145 at \$8.85, 3 av 190 at \$9.

Bishop, B. & H. sold Mich. B. Co. 4 av 150 at \$9; to Goose 4 av 250 at \$4.50; to Mich. B. Co. 13 av 140 at \$8.85, 4 av 170 at \$7, 8 av 155 at \$8.75; to Freedman 2 av 155 at \$9; to McGuire 9 av 145 at \$9; to Burnstine 5 av 155 at \$9; to McGuire 14 av 170 at \$8.85.

Johnson sold Barlage 5 av 130 at \$8.50, 1 weighing 210 at \$5.50.

Bohm sold Newton B. Co. 10 av 170 at \$8.

Kendall sold Burnstine 10 av 160 at \$9.25.

Sheep and Lambs.

Receipts, 2,122. Buck lambs very dull and hard to sell; other grades steady at last week's prices.

Best lambs, \$6@6.25; fair to good lambs, \$5@5.75; light to common lambs, \$4.50@5; feeding lambs, \$6; fair to good sheep, \$3.50@4.25; culls and common, \$2.75@3.25.

Spicer & R. sold Stocks 12 lambs av 60 at \$5.50, 12 do av 75 at \$5.75, 6 sheep av 105 at \$3.50; to Pakes 14 lambs av 55 at \$5, 49 do av 70 at \$5.80; to Brown 50 do av 80 at \$5.75, 31 sheep av 105 at \$3.75, 10 do av 106 at \$3; to Mich. B. Co. 20 do av 90 at \$3.50, 17 do av 85 at \$4, 10 lambs av 70 at \$5.50; to Pakes 21 do av 65 at \$5.80, 15 do av 65 at \$5.80; to Halse 17 sheep av 110 at \$3.25.

Bohm sold Newton B. Co. 25 lambs av 80 at \$6, 4 do av 55 at \$5.

Roe Com. Co. sold Barlage 26 sheep av 105 at \$3.50, 44 lambs av 70 at \$5.50; to Mich. B. Co. 32 sheep av 110 at \$3.50; to Eschrich 9 do av 140 at \$3; to Mich. B. Co. 41 lambs av 80 at \$6.25, 70 do av 70 at \$5.75.

Terhune sold Mich. B. Co. 18 lambs av 70 at \$6.

Downing sold Thompson 49 sheep av 85 at \$4.25.

Haley & M. sold Newton B. Co. 3 sheep av 160 at \$4, 5 lambs av 70 at \$5, 62 do av 75 at \$5, Mich. B. Co. 43 do av 70 at \$5.75, 5 do av 65 at \$5.

Johnson sold Barlage 47 lambs av 73 at \$5.50.

Hickey sold Haley 36 lambs av 80 at \$5.85.

Bishop, B. & H. sold Pakes 20 lambs av 60 at \$5.75, 27 sheep av 80 at \$3.75, 7 do av 122 at \$4, 1 do weighing 220 at \$3, 9 do av 100 at \$3.75; to Sullivan P. Co. 15 lambs av 85 at \$5.50, 26 do av 80 at \$6, 8 do av 75 at \$5.25, 6 do av 65 at \$6, 55 do av 72 at \$5.40; to Newton B. Co. 28 sheep av 80 at \$2.75; to Sullivan P. Co. 20 do av 90 at \$3.25, 53 lambs av 62 at \$5.25, 44 do av 70 at \$5.50, 3 do av 78 at \$6.25; to Fitzpatrick Bros. 13 do av 45 at \$4.50, 16 sheep av 120 at \$3.75; to Pakes 75 lambs av 80 at \$5.80; to Fitzpatrick Bros. 11 do av 67 at \$5.50, 16 sheep av 90 at \$3.25, 33 do av 100 at \$3.80, 8 lambs av 75 at \$5, 17 do av 68 at \$5.35, 23 do av 75 at \$5.75, 10 sheep av 110 at \$3.75; to Eschrich 28 lambs av 70 at \$5.25.

Hogs.

Receipts, 2,300. Market 30@35c higher than last week.

Range of prices: Light to good butchers, \$9.25@9.35; pigs, \$9@9.25; light yorkers, \$9.25; heavy, \$9@9.25; stags, one-third off.

Haley & M. sold Hammond, S. & Co. 158 av 185 at \$9.35, 89 av 230 at \$9.25.

Spicer & R. sold same 260 av 190 at \$9.35.

Sundry shippers sold same 350 av 190 at \$9.35.

Roe Com. Co. sold Sullivan P. Co. 226 av 190 at \$9.35, 140 av 230 at \$9.25.

Bishop, B. & H. sold same 60 av 200 at \$9.30, 32 av 190 at \$9.35, 13 av 225 at \$9.10, 18 av 210 at \$9.25.

Same sold Parker, W. & Co. 702 av 200 at \$9.30, 173 av 190 at \$9.35, 40 av 230 at \$9.15, 130 av 220 at \$9.25.

LIVE STOCK NOTES.

The Indian's ability to grow beef on the range where he has a competent tutor, is being plainly indicated by the North Cheyennes in Montana. The Tongue river agency recently marketed at Chicago a shipment of 28 loads of range steers of the Hereford type at prices ranging from \$7.25 down to \$5.70, the top lot being high point of the season for westerns this year. These cattle were home-grown Montanans and the top load weighed 1,580 lbs. This is the third season's shipment from that range since the government allotted the Indians breeding stock and their way of handling the beeves is good evidence that they are possessed of an ambition to make the tribe rich by producing good beef.

GENERAL REVIEW OF CROP CONDITIONS.

The month of July was unfavorable for crop growth, taking the United States as a whole, the deterioration being about 4.2 per cent, as compared with an average decline of 2.3 per cent during July. Aggregate crop conditions in the United States on August 1 were 6.5 per cent lower than on August 1 a year ago, and about 5.3 per cent lower than the average condition on August 1 of the past ten years. However, the area under cultivation is about 3.2 per cent more than last year. Conditions average highest in New Hampshire, 25 per cent above the average, due largely to good hay prospect; and average lowest in North Dakota, 59 per cent below the average, due to severe drought affecting all crops.

By states, the aggregate of crop conditions on August 1 (100 representing the average on August 1 of the past ten years) was as follows:

Maine, 122; New Hampshire, 125; Ver-

mont, 119; Massachusetts, 111; Rhode Island, 101; Connecticut, 108; New York, 111; New Jersey, 102; Pennsylvania, 104.

Delaware, 108; Maryland, 105; Virginia, 106; West Virginia, 99; North Carolina, 99; South Carolina, 98; Georgia, 95; Florida, 94.

Ohio, 103; Indiana, 105; Illinois, 101; Michigan, 93; Wisconsin, 75; Minnesota, 85; Iowa, 92; Missouri, 103; North Dakota, 41; South Dakota, 81; Nebraska, 86; Kansas, 97.

Kentucky, 98; Tennessee, 104; Alabama, 100; Mississippi, 103; Louisiana, 103; Texas, 106; Oklahoma, 89; Arkansas, 101.

Montana, 83; Wyoming, 74; Colorado, 86; New Mexico, 85; Arizona, 100; Utah, 94; Nevada, 102; Idaho, 91; Washington, 88; Oregon, 106; California, 111.

The condition of various crops in the United States on August 1, 100 representing for each crop, not its normal condition, but its average condition on August 1 of recent years (10-year average for most crops)—was as follows:

Peaches, 128.6; winter wheat, (yield per acre), 110.5; clover (production compared with average production), 105.5; rye, (yield per acre), 101.8; hops, 100.1.

Peanuts, 99.8; oats, 98.7; sweet potatoes, 98.5; lemons, 98.3; rice, 98.2; tomatoes, 97.5; sugar cane, 97.0; broom corn, 96.7; corn, 96.6; buckwheat, 96.5; onions, 96.1; cabbages, 95.9; beans, 95.8; oranges, 95.6; cantaloupes, 95.2; hay, 95.2; cotton, 95.1; tobacco, 95.0; watermelons, 94.0; sorghum, 93.6; sugar beets, 93.6; hemp, 91.0; alfalfa, 90.1.

Grapes, 89.5; potatoes, 88.1; apples, 86.3; barley, 82.1; pasture, 81.8; kafir corn, 81.6; millet, 80.3.

Raspberries, 78.0; blackberries, 76.6; spring wheat, 74.5; flax, 58.5.

VETERINARY

CONDUCTED BY W. C. FAIR, V. S.

Advice through this department is free to our subscribers. Each communication should state history and symptoms of the case in full; also name and address of writer. Initials only will be published. Many queries are answered that apply to the same ailments. If this column is watched carefully you will probably find the desired information in a reply that has been made to some one else. When reply by mail is requested, it becomes private practice, and a fee of \$1.00 must accompany the letter.

Foot Sore.—I have a cow that has been sore in front for the past few weeks. She stands with fore feet well in advance of body, and I might say her health is fine. R. A., Bedford, Mich.—Stand her in wet clay not less than three hours a day and apply crude oil to fore hoofs daily.

Bog Spavin.—I have a horse that is quite lame, caused from bog spavin and I am anxious to have him cured so that he will travel sound. M. A. C., Attica, Mich.—Blister joint lightly, using cerate of cantharides; these applications should be made once a week. In my practice I frequently apply equal parts tincture of iodine and spirits camphor daily and allow the owner to use the horse for light work, but he should be driven no faster than a walk.

Dry Cough.—I have a four-year-old, also a two-year-old colt that have been troubled for the past four weeks with a cough. Neither of them have swollen glands, no discharge from nose and both are seemingly in good health. M. W., Carsonville, Mich.—Give each one a tablespoonful of tincture of opium and a teaspoonful of tincture lobelia at a dose in feed twice a day. If you prefer to give them a less expensive remedy try giving two tablespoonfuls powdered licorice at a dose in feed twice daily.

Warts on Udder.—The bag of my cow is completely covered with warts and I would like to know what can be done to get rid of them. Mrs. W. J., Ypsilanti, Mich.—Clip off every one that has a neck and apply acetic acid to the flat ones once a day. To heal the sores apply hydrogen peroxide twice daily; ten minutes after these applications apply boric acid. If the cow is nervous and frets while being milked, don't remove too many warts at a time. It may be necessary to buckle a surcingle around her body at flanks in order to make her stand still when you milk her.

Bronchocoele.—Will you kindly tell me if a round movable bunch that is situated in the throat of a colt can be removed? This bunch is about the size of a hen egg. B. D., Milford, Mich.—Give 20 grains of resublimed iodine at a dose in feed or water twice a day until the bunch begins to reduce, then smaller doses may be given.

Pin Worms.—I have a colt 3½ months old that is troubled with pin worms and he is not thriving. The mare has been fed on dry feed until a month ago, but she shows no symptoms of being wormy. A. McC., Leslie, Mich.—Wash out bowels with an infusion of quassia once a day or use a two per cent solution of coal tar disinfectant, or a weak salt solution.

Rupture.—My four-month-old colt has a navel rupture which is not seemingly doing the colt any harm, but I am at a loss to know how to treat it. S. H. H., Oak Grove, Mich.—You had better leave the colt alone until cooler weather, then have a competent veterinary surgeon operate on him. The operation is not difficult or dangerous.

Goutre.—I have a colt that has a bunch on each side of the throat which is movable. N. T. Manton, Mich.—Give 4 grs. resublimed iodine at a dose in water twice a day and apply tr. iodine three times a week.

Blood Poison.—My two-month-old colt has a large bunch on shoulder which our veterinarian fails to reduce. I have applied one quart of liniment which the Vet. prescribed but it failed to help the colt. I have also applied vinegar, salt and

soap; this failed; then I applied kerosene without good results. L. J. K., Ann Arbor, Mich.—The colt suffers from a cold abscess and it should be opened freely, then one part carbolic acid and 30 parts water injected into sack or wound twice daily.

Cow Gives Bloody Milk.—We have a cow that gives bloody milk from one teat. She has been in this condition for the past four months. Mrs. W. R., Harbor Beach, Mich.—Use a milking tube and avoid squeezing udder. Most cows that give bloody milk have injured their udder and the small blood vessel that opened is disturbed at each milking, unless a tube is used.

Infected Udder.—One of my cows came fresh in April and had no udder trouble until six weeks later, at which time one quarter became diseased, causing her to give bloody, stringy milk. Some time later another quarter became diseased; later another quarter, and still later the fourth quarter went wrong, all showing the same symptoms. J. L., Brown City, Mich.—Her udder should be washed out daily with a two per cent solution of carbolic acid, but in order to do so you must use a return flow syringe.

Sprained Shoulder.—My four-month-old calf is in good condition but at times drags one fore leg. What had I better do for her? T. W. T., Breckenridge, Mich.—Apply equal parts turpentine, aqua ammonia and raw linseed oil to shoulder three times a week.

Pigs Cough.—Our pigs are troubled with a cough and some of them have thumps. I have given soda and charcoal to them mixed in their feed. Mrs. C. W., Sherwood, Mich.—Give them some powdered licorice in feed twice or three times a day.

Parasitic Bowel Trouble.—I have recently lost three large and one small turkeys which show bowel trouble, but am unable to tell if it is cholera or not. They appear dumpy, stand around and refuse to eat. Mrs. G. L. P., Bad Axe, Mich.—Give each turkey 2 grs. sub-nitrate bismuth at a dose three times a day; also give each one a grain of quinine at a dose three times a day.

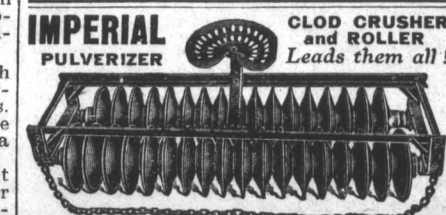
Teaching a Collie Dog.—I have a collie pup nine months old that I am anxious to teach so she will be a useful farm dog, but I am not a dog man therefore I would like to know how to go about it. She lacks intelligence and has not been right since I bought her and as I have owned her since she was six weeks old would like to have some advice about training her. Mrs. M. E. H., Muskegon, Mich.—If she lacks intelligence you will fail to teach her to be of much use on the farm. If I were you I would buy another dog that was broke to drive stock and perhaps exchange yours with the dog man you deal with. Stupid dogs have no value.

Epilepsy.—I would like to know what was wrong with my calf. It sucked its mother while she suffered from milk fever a day or two after she calved. Now the calf had fits and appeared as though it was insane; following these spells the calf would fall and struggle and when ten days old died. R. H. S., Hale, Mich.—Your calf no doubt suffered from epileptic fits and I do not believe that its mother's milk had much to do with causing its sickness and death.

Kicking Cow.—I would like to know how to prevent my cow from kicking. She stood fairly well for a few days after coming fresh, then commenced kicking when milked; then I let calf suck her. She has a few small sores on teats, but they should not hurt her much. She gives 14 quarts of milk a day. I. W., Oak Grove, Mich.—Her teats are perhaps sore enough to hurt her when milked by hand or sucked by calf. Apply flexible collodion to sores twice a day. Before milking her apply a surcingle around flanks, or you may use a rope; this is perhaps the simplest and best method of restraining the cow from kicking, or another plan is to huddle the two hind legs together leaving ten or twelve inches of space between the legs. Or tie a strap or rope tightly around leg above hock and tighten it same as a twitch is applied to the nose or ear of a horse.

Crop-Bound.—Can you tell me what ails my chickens and chicks? They sit around and droop, refuse to eat and on examination find that their crops are stuffed very full. They are fed cracked corn and chick feed. Is their ailment caused by want of grit? Mrs. O. S., Kent City, Mich.—Your chickens are not fed enough vegetable food; consequently the crop and bowels become impacted. Give them sweet oil, a teaspoonful to each full grown chicken or the crop should be opened, its contents removed and the skin stitched with either catgut or sterilized silk. The stitches removed after the wound heals.

Sweeney.—We would like a little advice regarding a mare that is sweeneyed and travels quite lame. The shoulder muscles are very much smaller than they should be. The fetlock on lame leg is thickened all the way round and I would like to know how to reduce it. M. S. T., Decatur, Mich.—You had better clip the hair off atrophied parts of shoulder and blister lightly every week or ten days, using either cerate of cantharides or any good home blister you may have on hand. If the bunch on ankle is not inflamed and growing you had better leave it alone, until cool weather; then apply iodine.



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Woman and Her Needs

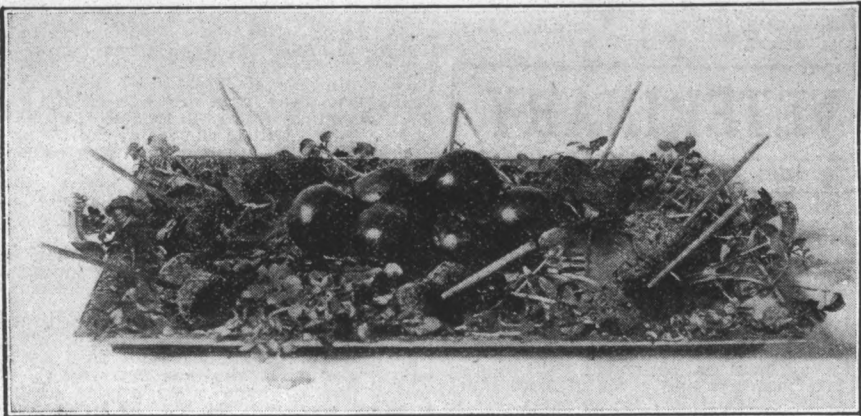
At Home and Elsewhere

Late Summer Fancies For The Table

By Marjorie March.

AUGUST gives us cool evenings while we still have the warmth of the summer sun through the day time. Perhaps it is for this reason that appetites grow more keen and the dainties of the table are more appreciated by the members of the household and any guests who happen in, then they are in early summertime. Our photographs this month show two conceits for the table. One shows a pretty centerpiece for the summer time. A round mirror represents a little lake on which are little sponge cakes with

Have small cards cut in the shape of a regulation tin can, and on it write these words, "What cans are these? 1. The can that contains water. 2. The can that holds a bird? 4. The can that holds one of the tropics? 5. The can that holds a broken engagement? 6. The can that holds a frank opinion? 7. The can that holds a dim light? 8. The can that holds a number of lights? 9. The can that holds sweets? 10. The can that holds a savage? 11. The can that may blow up? 12. The can that won't accomplish any-



A Dish of Croquettes.

sails, which look absurdly like genuine crafts of the ocean. Ferns are laid about the edge of the small sea, their delicate tracery showing to good effect on the table cloth or on the bare polished table, as preferred. The second picture shows neat croquettes with handles made of macaroni, these being intended to represent croquet mallets. In the center of the platter are some small round tomatoes of uniform shape which, of course, are the croquet balls. The whole dish is arranged on a bed of watercress or shredded lettuce which will look sufficiently like a green lawn to be attractive.

I give below other designs for the dainty summer table that can be arranged without much expense and which will be pretty for any small entertainment.

For a quiet informal party send out invitations written on the white sails of little ships which can be cut from thin cardboard. Another fancy is to send them on cards decorated with pictures of some summer sport, such as croquet, tennis, boating or the like. When a party is given in the evening and the lawn is to be used lighted with Japanese lanterns, it is a quaint idea to send the invitation on tiny Japanese lanterns, cut from cardboard decorated with water color paints to look like the real lanterns.

The table can be lighted by pretty candlesticks with shades of the color to harmonize with the decoration. For instance, if the little lakeside centerpiece shown in our illustration, is used, the shades on the candles could be white, decorated with green ribbon or delicate green leaves.

Another pretty arrangement would be a recreation table. For the centerpiece have a small doll's hammock filled with flowers or with little packages which can contain gifts for the guests. To arrange the hammock have two small pans of sand completely hidden under green leaves and flowers. Into these pans sink two small sticks painted white, from which the diminutive hammock can swing. At the places of the guests there can be favors in various shapes suggestive of outdoor sports. There can be a candy box with a tiny racquet ball on top for the tennis player, a box the shape of a ball at another place, or little mallets which, when opened will be found to contain bonbons. The bonbon dishes themselves can be little baskets suggestive of fishing baskets and small fish lines can swing from the hands of little dolls arranged on top of a large cake which can be one of the principal courses.

After supper a contest will be enjoyed by the guests. One that is simple and easy to arrange is a Canned Contest.

for the dear home folks, or for guests when they happen in from the next town, or when the city guest arrives. On the farm are the requisites for more dainty dishes than a city hostess can obtain without a visit to many shops. It remains for the country housewife to present these viands in a tasty way and to have her table show forth, in attractive china and setting, some of the simple tastefulness which characterizes the city festal board.

Then are the assets of hospitality all on her side, and with slight expense she can show herself a delightful hostess.

Recipes.

Corn Chowder.—To one quart of corn scraped from the cob add one pint of raw potato cut in small dice. To the water in which the corn was cooked add the potato, and salt and pepper. When the potatoes are nearly done, pour off most of the liquid and add a pint of milk and the corn. In another skillet make a little drawn butter, using the corn fluid instead of other milk or water, and when thickened, stir it slowly into the chowder. A very little onion may be added if liked, also two hard boiled eggs, chopped. Serve with croutons.

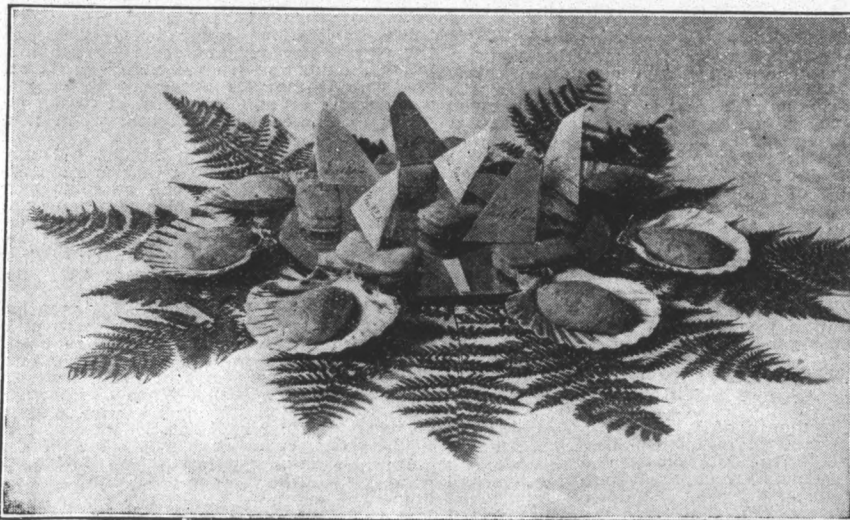
Peach Delight.—Prepare a quart of chopped peaches and into them stir a cup of water, two cups of sugar and the unbeaten whites of four eggs. Beat in the freezer until smooth and stiff and serve in tall glasses, with sponge cake or any white cake if preferred.

Peach Dainty.—Have ready halves of perfect peaches. Into the hollow of each put a teaspoonful of pineapple syrup from preserved pineapples or the ginger syrup from candied ginger. Let stand, then pour out any surplus moisture and fill the peach cups to overflowing with whipped cream. Stick one or two dainty flowerets in the top of each portion. Another quick dessert is to hollow out little cup cakes and if fresh peaches are not obtainable take either peach, strawberry or pineapple preserves and put a spoonful in each cake case, piling whipped cream on top.

Summer Cup Cakes.—These pretty little cakes may be made by any favorite recipe but the following is very good: A heaping tablespoonful of butter and one cup of sugar creamed together and the yolks of four eggs beaten light. Then add, slowly, one cup of milk, alternating with two cups of flour in which are sifted a teaspoonful of cream of tartar and a half teaspoonful of soda. Flavor with orange and bake in greased patty tins. Frost white, pale yellow or pale pink, using the vegetable colorings which can convert simple cakes into confectioner's triumphs.

Tomato Jelly Salad.—Heat a pint of stewed tomatoes with salt and pepper. Dissolve an ounce of gelatine in a very little water and add to the tomatoes and set in moulds to harden. When turned out take out a portion from the center of each, leaving a cup of the jelly and fill with chopped cress or lettuce mixed with mayonnaise dressing, or with sauce tartare, which is mayonnaise dressing, with the addition of a chopped pickle and a tablespoonful of capers.

Curried Chicken.—For those who are fond of curry powder this makes a del-



A Novel But Pretty Center Piece.

cious dish. Cut cold chicken into dice and cover, in a saucepan, with milk or cream and one or two bits of butter. When the milk is hot sprinkle over a tablespoonful of flour, stirring constantly. Just before serving stir in a teaspoonful of curry powder mixed with a very little cream. Serve on slices of toast.

Apple Salad.—Select firm red apples, remove the centers, making them into pretty cups. Fill these with apple cut in

THE WAY OUT

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dices with an equal amount of chopped celery, mixing both with mayonnaise.

Surprise Croquettes.—Surprise croquettes add a bit of mystery to any repast and are easily made. Croquettes made of chicken may have a stuffed olive or a bit of pickle in the center of each, or a spoonful of currant or cranberry jelly makes a delicious hidden bit. Rice croquettes made of boiled rice mixed with beaten egg and a little flour and sugar, may hold a bit of preserved pineapples or a candied cherry in the heart of each. Serve with a foamy sauce.

French Apple Bread.—Stew some apples until very tender and beat them until very light. To one part of apples take two parts of flour, a half yeastcake dissolved, a teaspoonful of salt and a tablespoonful of sugar. Knead well and set to rise for eight or ten hours. If the apples are juicy no other water is needed except what is required to dissolve the yeast cake. Bake in a loaf.

Lemon Meringue Pie.—Put one cup of sugar, the grated rind of a lemon in one cup of boiling water, then add in one tablespoonful of corn starch, dissolved in a little cold water and stir until it thickens. Remove from the stove and stir in one beaten egg and the juice of one lemon. Fill pastry case. Beat the whites of two eggs until stiff, with a little granulated sugar, pour over the top and brown a few minutes. If desired the yolks of two eggs may be used for the body of the pie and the whites for the frosting.

SHORT CUTS FOR HOUSEKEEPERS.

When canning tomatoes keep a kettle half full of boiling water on the stove, put tomatoes into a wire basket and dip them into the boiling water two or three times or drop about a dozen of tomatoes into the boiling water and take out with a skimmer. This will be found much easier for removing the skin from the tomatoes than the old way of heating quantities of water and pouring over them.—Mrs. N. V. V.

If young children are troubled with stomach and bowel disturbances during the fall months, instead of dosing them day after day, prohibiting the eating of fruit and putting them on a mid-winter diet just when corn, beans, etc., are at their best, try fastening a bandage of warm flannel tightly over the bowels. The trouble is quite as apt to come from sudden changes of temperature as from anything eaten by the little people and the warm flannel will effect a permanent cure while remedies are at best only temporary in their good effect.—L. M. T.

In dish washing turn the handle of the dishpan around from the draining pan and it will save a good many nicks on the dishes.—L. C.

I like to use old black stocking legs for little children's everyday drawers as they are so very easily made and look much neater than white or colored goods. Just cut the stockings off the length required and cut them down from the top long enough for the body part and set in a piece about four inches square. The hem in top of stocking answers for band. I never make button holes either, only in center of back.—Mrs. D. L. G.

I tried killing flies with sweetened water on poison fly paper, but the flies would never touch it. After sprinkling a little milk in the dish they ate it readily, and died almost at once, by the dozen.—C. R.

FRUIT IS INVALUABLE.

No. 24.

BY MRS. ALTA L. LITTELL.

THAT a flat, tasteless diet we would have without fruit, and yet fruit contains only a small proportion of nutrition. Water, from 75 to 85 per cent, sugar, salts, acids and a gelatinizing substance called pectin make up the composition of fruit. The amount of sugar in the fruit determines its value as a nutriment, yet fruit plays an important part in the diet, by cooling the blood in summer, rendering it less alkaline, correcting tendencies to biliousness, gout, rheumatism and diseases of the kidneys, to say nothing of the effect on increasing the flow of saliva and other gastric juices. The organic acids of fruits work these wonders in the body.

The great value of fruit is recognized when we stop to think that in illness where almost everything is forbidden, fruit of some nature is allowed. The amount of sugar contained in fruit, of course, varies, some grapes containing as high as 25 per cent and raspberries as low as 3.95. The sugar is unlike cane sugar, and is known as grape sugar,

glucose or dextrose. In the unripe fruit, the sugar is largely starch, which is converted by the process of ripening into fruit sugar.

The acids differ, too, with the kind of fruit. Malic acid is found in apples, pears, red and white currants, blackberries, raspberries, quinces and pineapples. Citric acid occurs in lemons, oranges, lime fruits, gooseberries, strawberries and also raspberries and quinces. Tartaric acid in grapes, where in the manufacture of wine it is deposited on the inside of the casks and scraped off to make cream of tartar. Oxalic acid is found in tomatoes, plums, gooseberries, strawberries and raspberries.

As medicinal agents, fruits are highly recommended by some doctors. Fruit containing oxalic acid, as tomatoes, strawberries and gooseberries, is said to be good for persons subject to asthma and bronchitis; strawberries, raspberries, oranges, blackberries and currants are recommended for rheumatism, because of the salicylic acid they contain; cooked apples are said to be fine for dyspeptics and raw ones are prescribed for those who suffer from liver trouble. Prunes contain a purgative principle which makes them excellent for those suffering from constipation, and in many homes they are served every morning for breakfast. Grapes are highly thought of that the "grape" cure is used by many German doctors. It consists of eating one grape every five minutes, and in this way consuming several pounds daily.

A table showing the composition of the more common fruits follows:

	Water	Nitrogen	Acids	Sugar
Pears	83.03	.36	.20	8.26
Apples	83.58	.39	.84	7.73
Plums	81.18	.78	.85	6.15
Prunes	84.86	.40	1.5	3.56
Peaches	80.03	.65	.92	4.48
Apricots	81.22	.48	1.16	4.69
Cherries	80.26	.62	.91	10.24
Grapes	78.17	.59	.79	24.36
Strawberries	87.66	1.07	.93	6.28
Raspberries	86.21	.53	1.33	3.95
Blackberries	86.41	.51	1.19	4.44
Gooseberries	85.74	.07	1.42	7.03
Currants	84.77	.51	2.15	6.38

Woody fibre, ash and non-nitrogenous matter make up the balance.

LET THE GUEST WORK.

Dear Editor:—I take it for granted that "Hillsdale's" unwelcome guests and "hanger's on" are city folks, for no farmers' wives or families could think of going from home in mid-summer to stay so long. City women do not realize the work and care on a farm and only see the easy side. Another reason is, it is so nice to have everything fresh and a quantity to eat, with no thought of expense (to them). We farmers' wives do all enjoy company, at times, but there are a great many now days that just love to be entertained, but when they have company come it's a great burden, and you will hear them say, "Company in hot weather is awful." But if city people or country people go visiting they must expect to have their visits returned.

A lady of my acquaintance has entertained city folks a good deal. So she thought she would take an outing and visit a city she never had seen. When the visit, which consisted of two and a half days, was about ended, someone said, "Never thought you would come way down here."

But if you were to stay two or three weeks, as they do, you would soon hear how it costs to live. It costs farmers, too, but you don't hear them mention such a thing to company.

I think a good plan would be for this tired mother to set these hangers-on to work and tell them she must rest for a while. Let them get the dinner and do the work a few times. They would come to a realizing sense of what work was.

No! A thousand times no. We are under no obligations to entertain those we do not care for. We all really enjoy company at times. At least I do. It's a change and one feels better for doing something to please others. But we do like to feel that we are as welcome in their homes as they feel in ours, but it is seldom so. Now, tired mother, I am sorry for you, but let them get in the harness by doing the baking in a hot kitchen. Hope someone else will give a few pointers. Here's hoping you are resting.—Michigan.

HOME QUERIES.

Dear Editor.—Will someone please tell me through the Michigan Farmer how to wash white ribbon and silk so that it will not be cream color?—M. B., Mich.

Dear Editor.—Will some reader please advise me how to get paint spots out of a black summer silk waist? Many thanks for any information given.—Miss A. C. A., Washtenaw Co.



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HOME AND YOUTH

THE FAIR WEATHER PROPHET.

BY ALONZO RICE.

I love the weather prophet who is prophesying "FAIR;"
Though rain is pouring from the clouds,
he finds a rainbow there!
He shuts his eye against the sky that
looks a little black;
His face full-fronts the dawn of day, the
night is at his back.

When heavens all seem dropping, and
there's tempest in the air,
I love the weather prophet who is prophesying "FAIR;"
For his sunny expectations make me for
a while forget
My umbrella's wrong side out, my slippers
wringing wet.

A cheery note is in his voice, like any
bird's as gay,
And in his kindly features beams the sun-
shine of the May.
I love the weather prophet who is prophesying "FAIR;"
Thermometer marks "ZERO"—he has
"SUMMER HEAT" to spare!

Then let the blizzard bluster and the rain
in torrents fall;
He's my nearest, dearest neighbor and
I'll live throughout it all.
I greet him with a glad "Hello!" that
prince of men; I swear
I love the weather prophet who is prophesying "FAIR."

THE CURIOSITIES.

BY HOWARD DWIGHT SMILEY.

"I wish something'd turn up to furnish
a little variety and diversion in this here
camp," grumbled Charlie Christie, as he
tossed the carcass of a dressed muskrat
into the soup kettle and reached for a
pelt stretcher. "We've got things sys-
tematized down to the extent that I fell
like I oughter wind myself up every
morning like a clock, just to keep going.
I'd like to see a curiosity just once more
before I die."

"What you call 'em curiosity?" inquired
Injun Pete, whose education hadn't ex-
tended beyond the boundaries of the big
woods, and was mainly Chippewa.

"Why, anything; just so's it's out o' its
regular environment," answered Charlie.
"For instance, that critter up there is a
curiosity," he added, pointing to a big
porcupine that sat on the limb of a tree
at the edge of the clearing, making a
lunch off hemlock bark.

"I can't see the connection there," says
I sarcastically. "Seems to me they're too
uncommonly numerous and pesteriferous
'round here to be classed as curiosities."

"Certainly, certainly," returned Charlie
calmly; "a curiosity, like a prophet, is not
without honor save in his own country.
That critter would be the biggest kind o'
a curiosity if you'll put him where he
don't belong—That's a good definition—A
curiosity is something that's where it
don't belong."

"Humph! You crazy!" grunted Pete.
"I ain't either," contradicted Charlie
indignantly. "Now just for instance,
s'posing you should slap that hemlock
down on Broadway, New York, with the
porky setting on his perch—Why, they'd
have to call out the police reserves and
the state militia to fight off the mob that'd
gather 'round to view the curiosity!"

"Humph!" grunted Pete again.
"Now, on the other hand," persisted
Charlie, "I've read in the papers that
them horseless automobiles are just as
pesteriferous along Broadway as the pork-
ies are up here in the big woods. They're
always getting underfoot and overfoot and
doing damage to human anatomies and
one thing and another until all the folks
down there hate 'em worse'n a wolf hates
poison; but s'pose that one of them ma-
chines should come cavorting down
through this here clearing, what'd be the
result? Why, you and me and Pete
would rise up on our hind legs and open
our eyes and mouths and stare in plumb
amazement—w'd be viewing a curiosity!"

"Now, on the other hand," says I,
thinking to put a crimp in Charlie's phil-
osophy, "Just s'pose that critter happened
to be a polecat, 'stead of a porky, would
the result be the same?"

"That," returned Charlie, without bat-
ting an eyewink, "would be the exception
that proves the rule."

"What you call 'em horseless automo-
bile?" inquired Pete, always ready and
willing to learn.

"Why, it's a—" began Charlie and broke
off short as we all sat up to listen.

Far off down the trail from the direc-
tion of Winona was coming a curiosity.

"Honk, honk!" it says.

"Now, what the hotel is that?" I in-
quired.

"Sound 'em like goose," suggested Pete.

"Flying too low," says Charlie. "Sounds
like it was right on the ground."

"HONK, HONK!" says the curiosity
again, this time so loud and close that me
and Pete and Charlie all got jammed in
the shack doorway as we jumped for our
guns.

A big timber wolf went streaking across
the clearing with its tail between its legs,
traveling so fast that its yelp of terror
didn't come along until ten seconds later.
It was followed by a couple of deer that
didn't even hit the high places as they
sailed by, but seemed to take the clearing
at a jump and disappeared in the wake of
the wolf. Plainly consternation reigned
amongst the wood folk.

By this time we could hear something
going "chuggity chug chug, chuggity chug
chug," and a second later here she came
around the bend of the trail and up
through the clearing like a house afire.

Mr. Porky on his limb took just one
look, curled up in a ball and made the
drop of twenty feet to the ground without
a whimper. He hit it with a loud dull
thud, bounced three feet into the air,
came down running and lit out after the
other folks hotfoot.

In the meantime Pete disappeared under
the bunk—and Pete's a brave Injun
at that.

I glanced at Charlie. He had an ex-
pression of blank amazement on his face
that would 'a' baffled a Webster to de-
scribe.

"Speaking of coincidences," he mur-
mured as the machine fetched up with a
jerk right in front of the door, "this beats
anything I ever bumped into. Here's
your curiosity, Joe."

"Two of 'em," I says, looking at the
occupant, and, if anything, he was the
bigger of the two.

"Is this Joe Beam's homestead?" he in-
quired, looking out at us through a pair
of miniature washtubs set with glass bot-
toms.

"That's me," I answered.
"The superintendent of the Winona
mine directed me here. I've come out
for a hunting trip and he said you could
put me up and act as my guide."

He hopped out of the machine while he
was speaking and came toward us. I
couldn't help snickering when I saw his
duds. He had on one of them yellow can-
vas suits that rustle like the dead leaves
of November and smell like a country dry-
goods store. That outfit would have all
the game within a radius of two mile
flagged, and he'd be lucky if he got close
enough to a chipmonk to knock it over.
Still, business is business, and guiding
nimrods is part of mine, so I didn't make
any superfluous remarks.

"Reckon we can accommodate you," I
says; "but you won't find much of any-
thing to hunt except partridge. The deer
season ain't open, and—"

"Oh," says he, dismissing deer and
partridge with a sweep of his hand, "I
ain't after that kind of game. What I
want is something big and ferocious,
that'll let my friends know that I have
really been hunting. I don't want any-
thing smaller'n a bear!"

If there'd been any bear circulating
around this particular vicinity for the
year or two they had eluded my eagle eye.
Haden't seen a sign of the critters any-
where, and was just about to tell him so
when he continued.

"Of course I don't s'pose it'll be an easy
matter to stir up a bear; I guess they
ain't so thick around here as they was
once. Still, that's what I'm after and if
you fellows can get me a pelt to take
home I'll give you fifty dollars to divide
up between yourselves."

I looked at Charlie and he looked at me
and Pete crawled out from under the
bunk and looked at both of us and the
automobile all at the same time.

We didn't say anything for we all knew
it was a hopeless proposition. If he'd
offered fifty thousand instead of fifty we
wouldn't have been able to pull down the
prize.

"Say," says Pete suddenly, "how about
ol' Jim? Him got plenty heap good pelt."

"Why, that's so!" exclaimed Charlie
slapping his knee. "Why, Sure! It'll be
a cinch getting that bear, Mr.—er—"

"York," says he. "I'm from Pittsburg.
But who is old Jim?"

"Oh, he's an old codger who lives on
Paul Kratt's homestead, about ten mile
south of here. He don't know much, to
speak of, but I'll bank on it that he can
furnish that pelt all right."

I caught a snicker between my teeth
and swallowed it just in time to keep it
from busting, for, as a matter of fact,
old Jim was a black bear that Paul had
snatched away from its ma when it was a
cub, about fifteen years back, and had

brought it up tied to a stake in his back
yard.

For years Jim had been Paul's bosom
pet, but of late he had become old and
decrepit and considerable of a nuisance.
He had scratched about two-thirds of the
hair off his hide and had lost all his
teeth, so that Paul had to feed him on
corn meal mush and soup, and altogether
he was more bother than he was worth.
Although we didn't express our views out
loud we were all of the private opinion
that Paul would part with his pet cheap
and be glad of the chance.

Charlie gave me the wink and while he
helped Mr. York unload his wagon I
hustled Pete down to the spring.

"Now, Peter," says I, "it's up to you to
make a quick hike for Paul's homestead.
You tell him we sent you and that we
want to buy old Jim at his lowest possible
figure. Now you move fast and get that
bear here as quick as you can. You'd
ought to make the trip so's you'll be back
here some time tomorrow morning."

"Uh huh," grunted Pete. "What I do
then?"

"Tie him to a tree down at the north
end of the lake. Then come into camp
and explain to us that old Jim couldn't
come, but that you noticed fresh bear
sign back the trail a bit. That'll be our
cue and me and Charlie will start with
York around the west side of the lake and
as soon as we are out of sight you make
a sneak back to the bear."

"Me and Charlie will manoeuvre York
around to the north end and when
you see us coming you take off the bears
collar and start him off in our direction.
We'll spot him all right and sick Mr.
York onto him, and, as it ain't likely that
Jim will try to run away, there won't be
much trouble killing him. Then it'll be
all over but collecting the fifty. See?"

"Uh huh," answered Pete and started
off without more ado.

Me and Charlie turned too to entertain
our guest and keep him amused until the
psychological moment should arrive. He
was an interesting character, to say the
least, and as we drew him out I began
to really understand and comprehend
Charlie's definition of a curiosity.

This was his first trip into the big woods
and he was naturally nervous and appre-
hensive and had abnormal ideas of every-
thing in general. He'd come from a large
city where you can see more people in
ten minutes than you can up here in a
hundred years, and his notions of popu-
lation were built according.

He really believed there ought to be a
bear or some other ferocious beast under
every bush and behind every tree, and
governed his action with that idea in
mind. He didn't venture far from the
shack for the balance of the afternoon,
and only when accompanied by me or
Charlie, and even then he'd shy and jump
every time a chipmonk rustled through
the grass.

Of course we took particular pains not
to disillusion him. It's part of the game
to let a nimrod believe that his views are
correct, for if he should discover how
really tame the big woods are when you
once come to understand them, he'd be
liable to get discouraged and hit the back
trail for home.

So after supper Charlie settled down to
business and let out a few bear stories.

Now I suppose any one can tell a bear
story but I want to state this: when Chas.
H. Christie opens up on a tenderfoot and
relates a few of his original adventures
with the tribe of Bruin, you hear some-
thing almighty interesting. Why, when
that man gets his wind and opens wide
the gates of his imagination he has 'em
all around you. Whilest he relates his
little tales you can see, hear, smell and
feel 'em, under the bed and under the
table and right alongside you, and you
know beyond the shadow of a doubt that
there are at least a dozen of 'em waiting
just outside the shack door, ready to de-
vour you the minute you stick your head
out.

"Well, Charlie did himself grand that
night and by bed time had York so ner-
vous and fidgety that he didn't want to
turn in at all. Charlie assured him that
the shack was quite bear-proof, and that
he had nothing to fear so long as we had
the door barred, and finally prevailed on
him to roll into Pete's bunk, while me and
Charlie tumbled into the one on the oppo-
site side.

I'd been asleep for about two hours
when I was awakened by the sound of
Charlie's voice raised in loud and vocifer-
ous objection. It seems that York, by
way of attracting attention had tossed
one of his boots into Charlie's ear.

"What's that noise?" inquired York in
an awed whisper, as soon as Charlie let

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up cussing long enough for him to squeeze in a word edgewise.

It was a loud scratching and rattling on the roof just over our heads that he had reference to.

"That?" answered Charlie calming down a little. "Why, that's a curiosity."

"A what?" asked York, still in a whisper.

"Otherwise known as a—" Charlie was continuing, when I gave him a poke in the ribs to shut him up. I saw an opening for a good joke.

"I guess that's a bear," says I, hopping out of bed and lighting a candle. "You get up and dress and we'll go out and kill him."

"Not me," answered York, quick and decisive, just as I expected he would. "You put out that light and get back into bed and take a gun and sit up and watch that door and see that none of 'em get in here! You don't get me out there tackling a bear in the dark! Is that window all right? Ain't there a cellar or something we can get into where we will be safer than here? Oh, Lord! Can't you do something?" he chattered all in one breath.

"Be calm," says I, "be calm. Get on your clothes and come along. If there are any bears outside, now is as good a time as any to make a try for that pelt."

"Don't you do it!" rattled York, scared plumb out of his wits. "Don't you dare open that door! If you do I'll—I'll—Oh, Lord!" and he ducked under the blankets as I began to unbar the door.

"Oh, come along," says I impatient like. "There ain't nothing to be afraid of. They can't do more'n eat us up."

"I d-d-don't want to be eat up," chattered York from under the blankets. "You s-stay ri-right here wh-where you b-b-be-long and let them b-b-bears alone!"

"Oh, well," says I, grabbing up a .44 Colt in one hand and a skinning knife in the other, "if you're afraid I s'pose I'll have to tackle 'em alone," and with that I ducked out the door, slamming it behind me.

Just as I thought, the critter we'd heard on the roof, was a porky. He was sitting on the peak, pensively munching the ridgepole and I dropped him with one shot. Down he come—bumpity bump, and landed on the ground at my feet and immediately cut loose.

York must 'a' thought there was something doing sure when he heard the whoops, bangs, yells, growls, screeches and howls than rent the still silences of the big woods. I grabbed the axe and threshed the bushes with it, whacked the side of the shack with it and between every whack I yelled appealingly to my friends inside to come out and save me.

Then after a spell I quieted down and dragging the porky to one side I ripped it open with my knife and smeared some blood on my face and hands, just to look realistic, heaved the carcass into the bushes and snuck around to the door to listen to particulars. York was talking to Charlie from under the blankets as I could tell by the muffled sound of his voice.

"Oh, this is awful," he was saying. "Why on earth don't you go out and help your pardner? Them bears are probably eating him up right now! Why don't you get up and bar that door? They'll be after us next."

"No they won't," says I as I opened the door and staggered in, dripping blood and perspiration. "There was only one and I got him."

Charlie sat up with an exclamation of real concern on his face. "You ain't really hurt?" he asked anxiously.

That made me so stuck on my make-up that I almost snorted. I got my back to York and wunk at Charlie.

"I'm most killed," I informed him, letting off an awful groan. "He most clawed the hide off'n me, but I polished him off in the end, thanks to myself and none to you. You're two of the one—cowards that ever chawed bacon. Why didn't you come out and help me?"

"Who's a coward?" growled Charlie beligerently. "If a great big overgrown man like you can't handle a bear single-handed he'd better get out of the woods. The idee of calling on us for help in a little thing like that."

"If you'll shut and bar that door I'll get up and help you dress your wounds," volunteered York.

"Don't want your help," I snapped. "I had to go it alone outside and I reckon I can continue doing so," and with that I slammed the door and blew out the light and jumped into bed.

Now, after six months of absolute monotony, this little diversion was the biggest kind of a circus for Charlie, and for

the next two hours he lay awake and chuckled and giggled and, ever and anon, gave me a whack in the chest to show his appreciation.

"Curiosities!" he'd whisper. "Diversions! Variety! All in a bunch! Ain't it great, Joe? Wish we could do it again."

He got the chance about an hour before daybreak, when another porky went scrambling up the roof to the ridgepole. That pole was a favorite perch of theirs.

Charlie, as soon as he heard it, bounded out of the bunk and lit the candle. "My turn this time," he loudly whispered. "I'll show you whether I'm a coward or not," he added to me. "If you come out there and interfere with me I'll shove you right down the throat of that bear, understand? But, of course, if Mr. York cares to join me, he's welcome."

"No siree," answered York from under the blankets. "You couldn't drag me out—outside this place with a locomotive. Don't you dare open that door either! If you do I'll—I'll—Oh, I wish I was home!" he wailed dismally.

Charlie gathered up his weapons, yanked the door open, bounded into the night with a blood curdling yell and landed with both feet kerslap right on top of—the exception that proves the rule.

Why, oh, why, that blame critter should have been right out there in our front dooryard at that particular critical moment is more than I'll ever explain, but there he was and he and Charlie mixed it up generally for several seconds. Then, to make matters worse, Charlie came right back into the shack.

Let us draw a wire mattress over the next hour—I would have said veil under ordinary circumstances, but the veil was never made that is strong enough to hold it.

Daybreak found me and Mr. York down at the south end of the lake still gasping for breath. As it grew light I noticed that he was scrutinizing me rather closely.

"Where'd all that blood come from?" he demanded suddenly.

"Why—why—" says I, taken off my guard, from where the bear scratched me, of course.

"I can't see any scratches," says he suspiciously. "Looks to me like that blood had been daubed on with your hand." He reached over and felt of my face. "Why, you ain't hurt at all!" he exclaimed indignantly.

Well, he had me dead to rights so of course I had to 'fess up. I explained to him how it had only been a little joke and that there was no harm meant.

But did he take it that way? Oh, no! He rose up on his hind legs in wrath and indignation and read the riot act to me, and when he had finished he turned on his heel and started toward the shack.

"Where're you going?" I asked.

"I'm going home!" he snapped. "I wouldn't stay in this blankety blank camp any longer under any consideration!"

"But ain't you going to stay long enough to shoot that bear?" thinking of Pete and old Jim.

"Blankety blank your old bears!" he roared back. "I don't believe you've got such a thing in these woods!"

And that settled it. Away he went, chugging chugging across the clearing and down the back trail. "Me and Charlie gazed after him brokenly heartedly as long as he was in sight.

And, to cap the climax, we hadn't any more'n got the chug of his machine out of ears when here comes Pete around the back of the shack, holding his nose with one hand.

"What matter?" he inquired.

Charlie explained.

"Honk, honk!" says Mr. York faintly from far down the trail.

"And there goes fifty good iron plunks," says Charlie mournfully.

"Huh!" grunted Pete. "Me give 'em Paul feefteen dollar for ol' Jim, an' me got 'em tie to tree back here in wood."

A distinguished senator, discussing a certain monopoly, said, with a smile: "This company reminds me of the old man in the train who said to his neighbor:

"Would you mind lending me your specs, sir?"

"Why, certainly," the neighbor answered, and he took off his spectacles and surrendered them with a courteous gesture.

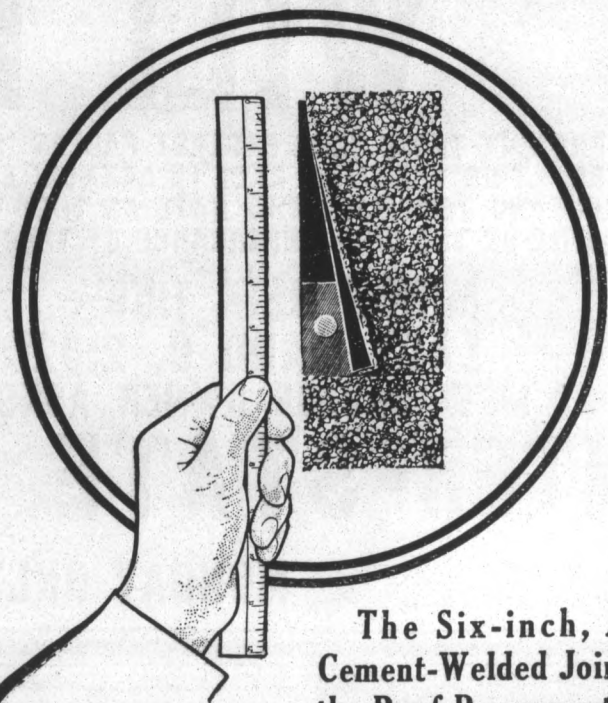
"And now," said the old man, "since you can no longer see to read your newspaper, I'm sure you'll be willing to let me run my eye over the sporting pages."

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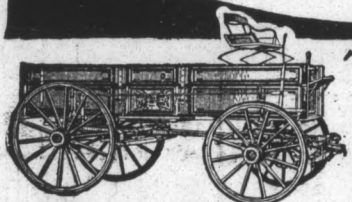
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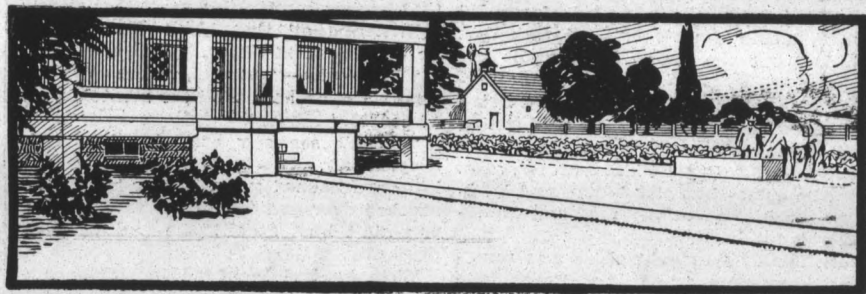
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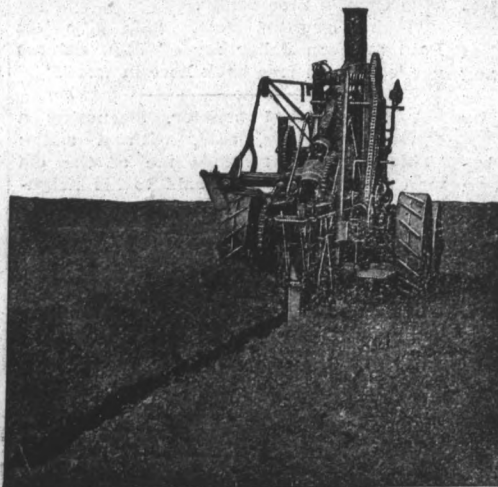
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