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FARM NOTES.

Catch Crops in the Rotation.

I have ten acres which was in rye last year and seeded with not very good success, altho there will be some clover and rye. I wish to cut this about the third week in June and as I will be short of hay I thot of plowing and putting to some crop that will make feed or pasture for cows this fall or winter. What would you advise, corn planted the first of July for fodder, or millet, or would it be better for the land to wait a little longer and sow to rye and pasture it, as I want to cover this piece with manure this winter and plant it to corn next year.

Branch Co. ALFRED GEHRING.

There is no doubt in the writer's mind but that, all things considered, the last mentioned plan would be much the better one for handling this land. Its advantages over the other plans mentioned would be many. In the first place the growing of a crop of fodder corn on this land would not be a very good preparation for the corn crop next year, for the reason that the growing of this cultivated crop would further exhaust the humus in the soil, which is probably one reason that you had no better success with the seeding last year. The millet would be still worse, as it is a shallow feeding plant and draws most of its fertilizing material from the top few inches of soil. Then neither of these plans would provide for a covering for the field over winter. The rye would furnish a very considerable amount of pasture in the late fall and early spring, and while it might not yield as large a return in pasture as the other crops would in forage, it would have many advantages over either of them so far as the good of the land is concerned. It would provide a covering for the land, appropriating a available plant food and holding it in the soil for the corn crop, and making almost as good a place to apply the manure during the winter and early spring as a sod field, as the growing plants would hold the available plant food washed into the soil by the rains, and the rye when plowed down would also add some humus to the soil. For these reasons the prospects for a good corn crop next year would seem considerably better if the land is handled in this way.

On the other hand, if the forage crop which might be grown is considered of more importance than the benefit to the land, I would prefer the millet to the corn, on account of the difficulty of curing and handling the late planted fodder corn. We planted a small area of corn in July one season a number of years ago, and were obliged to feed it from the shock in the field to save it. Of course, we desired to let it grow as long as possible and left it a little too long, so that it was cut with the frost. It was a large variety of dent corn and it was impossible to get it cured well enough so that it would not spoil in a mow or stack. Millet is not an easy crop to cure for hay, however, if the weather happens to be bad, as is likely to be the case in the fall of the year, so even from the standpoint of the value of the forage secured, it is possible that the rye would prove equally as val-

uable as the corn or the millet. If young cattle are to be pastured on the rye it might be advisable to sow about four pounds of dwarf Essex rape with the rye, but if milch cows are to be pastured on it this would not be advisable as it would be likely to taint the milk. But if sheep are maintained on the farm this combination would make a most valuable forage crop which could be pastured very late in the fall, and the rape should be sown with the rye by all means.

The Work and the Season.

When the season is backward and the weather unfavorable as it has been this year, there are so many things that need doing just at this time that the farmer who aims to manage his work to the best advantage is sometimes at a loss to know which to do first. He may be anxious to get in the potatoes or the beans, and be inclined to rush this work along even if it is necessary to neglect the corn for a few days to accomplish it. Of course, it is sometimes impossible to do everything on the day it should be done, but the early cultivation of the corn is one of the things which it will not pay to neglect, even for such important work as the planting of other crops. Upon this early cultivation depends in large degree the keeping of the grass and weeds out of the corn later in the season. If either grass or weeds are allowed to get a good start in the corn before the first cultivation, it is quite impossible to get the field clean again, without the use of the

early cultivation of the corn is one thing which should not on any account be neglected for other work.

Another thing which should not be slighted is the thoro fitting of the potato and bean ground before planting. For best results the ground for these crops should be plowed early in the season so that it can be worked over after the weeds have had time to germinate before the crop is planted. This will insure a clean field with ordinary cultivation and make hand hoeing unnecessary. But in a season like the present one when it was difficult, if not impossible, to get any of the plowing for later crops done before the corn was planted, the extent of the fitting given to the ground for these crops will not be a matter of choice with many farmers, as they will have to fit as well as they can and plant at once in order to get the crops in at a seasonable time. In this event their early cultivation should be the more thoro and should be done the sooner. Of course, the potato ground can be harrowed over with a spike-tooth harrow as often as seems desirable before the tubers are up, and this should be done after every heavy shower at least. The bean crop can be cultivated very soon after planting under favorable weather conditions, often within a week or ten days. In the opinion of the writer, too much emphasis cannot be placed on the importance of early cultivation of all these crops, or in fact, of any cultivated crop. This early cultiva-

tion should be thoro, close to the row and as deep or deeper than later cultivations. If it is well done it will destroy the weeds so effectually that the surface cultivation which will serve to maintain a dust mulch and conserve the moisture later in the season will suffice to keep the fields practically free from weeds, while if this early cultivation is neglected it will be difficult, if not impossible, to attain that end by any method of later culture which does not involve hand labor.

Like opinions are held by the most successful growers of beans and potatoes. They are practically agreed that for the purpose of maintaining a dust mulch for the conservation of soil moisture, these crops are not injured by cultivation after they have blossomed or set, notwithstanding the popular theory to that effect. However, in a normal season it does not appear to be at all certain that such late cultivation is a benefit, and there is even some good evidence to show that it may be harmful. At the Maryland station a series of experiments was recently made to determine the effects of different methods of cultivation on the potato crop. In the season on which the trials were made it was determined that about five fairly deep cultivations gave better results than a larger number of either surface or very deep cultivations, a considerable variation in the yield being noted where the cultivation was continued late, or was either very shallow or very deep. In summarizing the lesson afforded by the experiment, the conclusion was reached that in a normal season such cultivation as would serve to keep the weeds in subjection would give better results with potatoes than more frequent or longer continued cultivation than is needed for that purpose.

However, under other conditions of soil or season the results might have been entirely different, which brings us right back to the proposition that the individual grower should exercise his own best judgment, considering well the conditions which prevail in his case, as to when and how he should cultivate the ordinary crops grown in his rotation.



Scene at Fourth Annual Banquet of Saginaw County Pickle Growers.—(See Page 634).

hoe and hand labor to remove the weeds and grass from the hills. On the other hand, if the corn field has been harrowed with a spike-tooth after planting, and is given a thoro cultivation as soon as the rows can be followed, the weeds will be so effectually killed that they will give little bother during the entire summer with ordinarily thoro and frequent cultivation. It will pay to be thoro in this early cultivation of the corn, even if the planting of other crops has to be delayed a few days to accomplish it. The young plants will also make a more rapid growth for this early cultivation, and the late planted crop will come on much faster than would be the case if this cultivation were delayed for even a few days, so that from the standpoint of the development of the crop, as well as of keeping the field free from weeds this

When and How Shall We Cultivate?
Inquiries are at hand asking advice with regard to various phases of the cultivation problem, such as the depth to cultivate, whether potatoes are injured by cultivation after they have set, or beans by cultivation after they are in blow. It seems quite impossible to an-

But it is probably a safe conclusion that the average farmer errs more often by cultivating too little than by cultivating too much. Certainly he always errs by neglecting the early cultivation of crops, since almost no amount of later work will overcome the baneful effects of such neglect.

HUNGARIAN MILLET.

It is doubtful if Hungarian millet is given the place on the average farm that its value as a hay and soiling crop deserves. In a short rotation of three or four years it fits admirably, and can be substituted for corn where that crop cannot be profitably grown, and for smothering weeds is equal to the results obtained by the old-fashioned summer fallow, without the added expense that accompanies the latter. As a catch crop it is pre-eminent, and as such I have frequently grown it; learning in a practical way to appreciate its merits.

This crop prefers a rich, sandy loam. Being a shallow feeder, it is important that the land be thoroughly prepared, reducing the seed bed to a very fine tilth and concentrating the available plant food in the upper layers of the soil. Seeding should not be done until all danger from frost has passed, usually early in June. My own practice is to delay preparing the millet ground until near the close of corn planting. When a succession of crops are required for soiling purposes, it may be sown at intervals of two or three weeks, until late in July.

The seed may be sown broadcast or in drills, and while there seems to be but little choice between the two methods, I am inclined to believe that drilling gives an even stand, besides requiring less seed. A plan that I have seen tried, is to sow in drills far enough apart to allow of cultivation between the rows, thus preventing packing of the land and loss of moisture. The amount of seed generally sown is about one-half bushel per acre, when the crop is to be cut for hay, and a little less if a grain crop is the object in view. Thin seeding is likely to result in coarse stalks that are not desirable for hay, altho when intended for soiling purposes, this will not be any drawback.

In cutting Hungarian millet for hay it is important that it be cut as near as is practicable at the right time, which is, when the majority of the heads have appeared. If delayed until the seed has begun to ripen it becomes tough and fibrous. This will detract very much from its palatability as a food for stock, particularly, in regard to horses. On the other hand, if cut too early, the hay in this case being liable to have a more or less laxative effect on the animals eating it. However, the latter is the least of the two evils. On account of the succulency of the stems and leaves, curing is rather a slow process, and to secure the best results should not be hurried. I know of no better method than the one generally practiced in curing clover. After having been allowed to partially dry in the swath, rake into windrows and gather into cocks, not too large, where it should stand until thoroughly cured.

On account of the heavy yield of forage and the high standard of its composition and digestibility it is one of the very best soiling crops that can be grown. As for hay, it should be cut during the blooming period. It has a higher feeding value than either corn stover or timothy and is more relished by stock. As a milk producer when fed to cows I have had splendid results, making as it does a good supplement to the pastures as to materially increase the possibilities of dairying during the hot, dry period of mid-summer.

Canada. J. HUGH MCKENNEY.

RUSHING THE SEASON.

Does it pay to be ahead of the season with one's work? I think that depends. If it is preparative work, such as having everything in good shape so that one may be prepared to rush the more strenuous work of the season when it arrives, then all well and good. The man who has every piece of machinery in good working order before the time he wants to use it, is certainly a man of good foresight, and such a man is pretty apt to have his pasture and other fences in good condition long before the more busy season arrives, and likewise a good pile of summer wood split up and handy to the kitchen. Such work as that is all right, and likewise there is much more that one might do to save valuable time when he should be getting in his crops, but when one takes to disking his land when you can hear his horses feet splash-

ing in the water, it seems to me it is not good judgment nor very good common sense. I tried that once myself and was well satisfied when I got done with my experiment, that it did not pay.

It was a wet year and the most of the field was low and heavy. I tried to plow this field when the soil was in the right condition, but it kept wet and in order to get it into potatoes I plowed about half of the field when in portions of it the furrows were level full of water each time behind the plow. It came off nice right away when the plowing was completed and I fitted the ground and planted to potatoes at once. I took good care of the crop and yet when fall came I only had about ten bushels to the acre. There were some farmers that got even less than that, but as conditions were the same all around here I believe the trouble came from working the ground when too wet. Last season an old farmer told me about the trouble he had experienced in working the ground when too wet. He had been in the habit each season of working his ground too wet and he said he had got it in such a sour condition that he could hardly grow a thing. He was sick and tired of such heavy land and wished he was in a portion of the country where the soil was lighter. However, the soil is good and if handled rightly is capable of producing large returns.

It is very probable that underdraining would work wonders on the greater portion of this land, and a few farmers have already solved the problem so far as that is concerned.

Even an open ditch is better than to have the land covered with water, and while a little more inconvenient to work around, yet might pay for the digging in one season.

Of course, some farms cannot be drained until those farmers living below them are willing to give an outlet to get rid of the surplus water, and I must say in justice to those living above them, that a good many are certainly very slow in doing this, but one thing is sure, it does not pay to be working in the mud, and any man who rushes the season in this way might better let his land lie idle.

Montcalm Co. J. H. HANKS.

THE PICKLE CUCUMBER GROWERS' FESTIVAL.

The fourth annual "Pickle Dinner" of Saginaw county cucumber growers, occurred April 17, at Burt. The date was placed about two weeks earlier than usual this year, not that the opening of the busy season might not interfere with the dinner but in order that the festival might not interfere too seriously with the spring work. Everybody goes, for hereabouts everybody raises cucumbers and once a year the growers are the guests of the company that transforms the juicy cucumber into the appetizing pickle.

The women's societies of the place act as caterers, and their hands are kept full. This year they served about five hundred people. Everybody comes, from the oldest in the family to the youngest, and all receive a welcome.

As heretofore, officials of the railroad that carry the product were present, and joined in the social activities of the day. The "Pickle Dinner" was held at the village opera house, where the long tables groaned under the weight of good things. The absence from sickness of the genial head of the work here curtailed the speechmaking, but the festival made up in good cheer what it lost in formality.

Everywhere satisfaction was expressed with the pickle cucumber as a money crop. And the soil formation of Saginaw county seems particularly well adapted to its culture. Practically every farm devotes about an acre to cucumbers. An acre may sound small, and may look so on paper, and may be a small amount of cucumbers to plant and to cultivate, but when harvest time comes, an acre will produce—in a good year—a big crop to harvest. A half acre will keep a small family busy, if they do well, and two acres is practically the limit for one farm. For, in a good season when they are once well harvested, that is just a good preparation for the next picking, and all hands, big and little, must pick fast and often if the tiny high priced grade of cucumbers is to be secured. And plenty of horse power will be needed to haul in the loads that one small acre will produce.

So at the "Pickle Dinner" the children are expected and welcomed, for the greater portion of the cucumbers are picked, fortunately, in vacation time,

and there are few idle hands for Satan to find mischief for where the cucumbers need picking. For the growers pay high prices to the children who are not needed at their own homes, and many a boy or girl earns his first proud dollar by the sweat of his brow in the cucumber field.

So the pickle dinner, where kraut and pickle products form the foundation, with all sorts of farm good things in between, has become a unique institution here, whose like can probably not be found in Michigan, and possibly not in the country.

Saginaw Co.

"MACK."

TILE DRAINING A BLACK ASH SWAMP.

I have a piece of land that needs draining badly. It is sandy, with a hardpan under it. Originally it was a black ash swamp; would like to know if any of your readers have had any experience in tile draining such land. My neighbors tell me it is of no use to tile drain it as the tile will fill up with sand, and also the water will not soak thru the hardpan down to the tile. I don't know what to think about it, and should be very glad to have your advice.

Muskegon Co.

A. N. DAHL.

I have had considerable experience in tile draining, having laid them in almost all kinds of soil imaginable, in hard pan, in sand, in hard clay and muck, and my experience is that a tile drain will work and work well if it is properly laid in any kind of soil. Don't pay any attention to what people tell you about tile filling up with sand if they are properly laid; but if you have hollows in your grade line, or sags in your ditch, so that the tile are lower one place than they are another, these places will gradually fill full of sand and silt which washes down the drain. On the other hand, if the grade line of the ditch is true, and the tile are well laid, they will last indefinitely and do good work. Put your ditches down thru this black ash swamp right where you think they ought to be and just as deep as you think they ought to be, and pay no attention to the hard pan, or anything else. Dig down into it or thru it and lay your tile properly and the result will be that your black ash swamp will become the best piece of land on the farm and the most valuable. You can raise any kind of a crop any year. Don't be afraid to put the ditches in good and thick.

I have bot 80 acres of land and added to my farm this last fall and winter. We are tile draining over 60 acres of this, (the balance will be permanent pasture), and I expect to put in about five miles of under drain on this 60 acres, and yet much of it, judging from the looks in ordinary seasons, would not need draining at all, at least most farmers would say that it would not. Yet I am satisfied from actual experience that it will pay, and pay well. On my home farm I presume I have as much as 20 miles of underdrain and there is hardly a field but what ought to have more drains than it has now. As I have many times said, I believe it will pay any man on clay land that needs draining, to borrow the money to drain it with.

COLON C. LILLIE.

Fences may need repairing, especially if along a corn or wheat field where stock will try to reach the growing plants and push over fences. Fence rows that have become foul may be plowed up and planted to potatoes and perhaps put in wheat and seeded next fall, or if necessary kept cultivated another year.

FREE DEAFNESS CURE.

A remarkable offer by one of the leading ear specialists in this country, who will send two months' medicine free to prove his ability to cure Deafness, Head Noises and Catarrh. Address Dr. G. M. Brannan, 102 East 12th St., Kansas City, Mo.

\$460.00 in Gold for 46 Ears of Corn.

\$10.00 is a very nice price to get for an ear of corn but every farmer in the land has an opportunity to get that much for one ear of corn. In order to stimulate the production of corn, one of our advertisers offers \$10.00 in gold for the best ear of corn, any variety, grown in each state and delivered to him before December 1, 1909. There will be one \$10.00 gold-piece awarded in every one of the 46 states in the Union in which there shall be ten or more contestants. Full particulars about the prize offer can be had by writing a postal card or letter to the Shoo-Fly Mfg. Co., 1332 N. Tenth Street, Philadelphia. The names and addresses of the successful contestants will be published by us in December, or as soon thereafter as the awards are made. It will readily be seen that the prizewinners in this contest will in this way find a ready sale for all their seed corn grown.

Pressed Hard

Coffee's Weight on Old Age

When prominent men realize the injurious effects of coffee and the change in health that Postum can bring, they are glad to lend their testimony for the benefit of others.

A superintendent of public schools in one of the southern states says:

"My mother, since her early childhood, was an inveterate coffee drinker, had been troubled with her heart for a number of years and complained of that 'weak all over' feeling and sick stomach."

"Some time ago I was making an official visit to a distant part of the country and took dinner with one of the merchants of the place. I noticed a somewhat peculiar flavor of the coffee, and asked him concerning it. He replied that it was Postum."

"I was so pleased with it, that after the meal was over, I bought a package to carry home with me, and had wife prepare some for the next meal. The whole family were so well pleased with it that we discontinued coffee and used Postum entirely."

"I had really been at times very anxious concerning my mother's condition, but we noticed that after using Postum for a short time, she felt so much better than she did prior to its use, and had little trouble with her heart and no sick stomach; that the headaches were not so frequent, and her general condition much improved. This continued until she was as well and hearty as the rest of us."

"I know Postum has benefited myself and the other members of the family, but not in so marked a degree as in the case of my mother, as she was a victim of long standing." Read "The Road to Wellville," in pkgs. "There's a Reason."

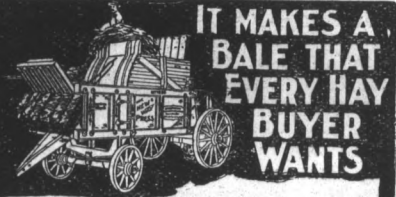
Ever read the above letter? A new one appears from time to time. They are genuine, true and full of human interest.

LOOK! LOOK!

Cedar Posts, Shingles, Lath and Lumber in carload Lots FOR SALE. MUST GO.

J. L. BARRETT, Missaukee, Mich.

IT MAKES A BALE THAT EVERY HAY BUYER WANTS



THE "NEW WAY" PRESS is a horizontal press. It bales 1½ to 2½ tons per hour. Feed hole 46x50 inches—easy to feed; no tramping, fork only used. Revolutionizes the loose baling system. Makes the very desirable eastern market bale. Bales all Box and Upright Presses by doing 100 per cent more work. Stands at work just as you see it in the cut. Very portable. Adapted to bank barn work. We also make Horse and Belt Power Presses. Write for catalog. SANDWICH MFG. CO., 140 MAIN ST., SANDWICH, ILL.

FOR SALE—New Buick 1909 Model 5, 40 H. P., fully equipped with top, automatic wind shield, 5 lamps and generator, new set of quick detachable tires, not run over 100 miles, also two extra tires with cover for same, Jones speedometer, clock, magneto, in fact a most complete car. If sold quick \$1,250. Seats 5 people. R. D. MAHER, 139 Beaubien St., Detroit, Mich.

Learn Auctioneering

AT JONES NAT'L SCHOOL OF AUCTIONEERING The School with Successful Graduates, and make from \$1200 to \$10,000 a year.

If you are interested or doubt the above statement write for catalog and let us prove the statement. It costs us more to send the catalog than it does you to write for it. Write to-day. It is free. Address CAREY M. JONES, Pres. 1215 Washington Blvd., Chicago, Ill. Summer term opens July 19.

Post's BINDERTWINE Farmers Wanted As Agents. AUGUST POST, ROULTON, IOWA

Binder Twine 7½c lb. Fully guaranteed. Farmer agents wanted. Sample and catalog free. THEO. BURT & SONS, Neilrose, Ohio.

YOUNG MEN WANTED—To learn the Veterinary Profession. Catalogue sent free. Address VETERINARY COLLEGE Department U. Grand Rapids, Mich.

LIVE STOCK

CORN VS. OATS FOR WORK HORSES.

For many years there has been an idea among many farmers that oats are a very superior feed for horses. They believe that there is some quality in the oats which imparts spirit and "ginger" to a horse, making him able to withstand more hard work than horses fed on any other feed. The same people have an idea that corn is in the main, a fattening ration and that is conducive to laziness in the horses so fed. Also, that corn-fed horses cannot stand the amount of hard work which horses fed on oats can.

In order to find out whether actual facts warrant such opinions, the Ohio station has been conducting some very interesting and valuable experiments along that line. Three teams, made up of six mature geldings, ranging from seven to eighteen years, have been used. They are high grade Percherons, weighing from 1,400 to 1,600 lbs. The horses in each team are of approximately the same age and weight, and as far as possible, each animal in the pairs is worked as much as the other. One animal in each span is fed a ration consisting entirely of corn and the other one of oats. One animal is given as many pounds of ear corn as the other is oats. All have been fed the same amount of mixed timothy hay. The weights of the geldings have been taken at the end of each four weeks during the forty-eight of the experiment. It is the intention of the station to make

that the market value of oats is generally higher than their feeding value. Thus, "under the market conditions which prevailed during the experiment the saving from the use of corn was very marked—approximately ten cents per day during the entire 48 weeks." That means a saving of \$36.50 per year thru the use of corn. Of course, market conditions vary, and there are times when oats are the cheaper, yet it falls to the farmer himself to tell what is the cheaper for him.

(The facts and many of the statements in this article are from bulletin 195 of the Ohio station at Wooster).
Ohio.

CLYDE A. WAUGH.

DON'T HAVE UNTHRIFTY PIGS.

I had four little pigs one year that I am sure would have been blown away if they had been where the wind could have had a good whack at them. They grew all right, grew fine, but they did all of the growing in the middle. Their heads and hams were almost as big in May as they were in July. I suppose it was rather mean of me to laugh at the helpless little rascals, but they looked like a big bladder propped up with four black sticks.

For a while I called them runts and gave them to the kids to raise, but I finally learned that it is absolutely unnecessary to have such freaks on the place. After I figured it all out it looked so simple that I kicked myself for not getting onto it before.

I had been feeding big feeds of rich food at irregular intervals and naturally the pigs got indigestion. But I got busy right away and made myself get in the



Rambouillet Ram, Bred at M. A. C., and Owned by F. J. Southwell, Saginaw Co.

the experiment a long one. The horses which have been fed oats for the past 48 weeks are being fed corn at present.

The results of the past 48 weeks have been rather startling. No difference has been noted in either the spirit or the endurance of the animals, and the results thus far indicate that the use of "either corn or oats induces to either sluggishness or activity. The use of corn to the exclusion of other grains was not detrimental to the health of the work horses." The corn fed to the mature geldings has been practically as efficient pound for pound, as the oats. Yet it must be noted that the experiment has not been continued long enough to prove anything in connection with the use of either of the two feeds in connection with any roughage than mixed hay and clover. Furthermore the bulletin asserts that it does not know anything concerning the relative value of the two feeds for the use of brood mares.

Yet the forty-eight weeks do prove that corn is as efficient a feed for work horses under average conditions, as oats. This fact should be of tremendous value to the American farmer for, during the past forty-two years corn has on an average been cheaper, pound for pound, than oats. Since the station has demonstrated that a pound of ear corn will go as far as a pound of oats, the average farmer will see that he usually feeds an excessive amount of corn, and, in addition, he will see the corn is usually cheaper feed than the oats. This means

habit of feeding the pigs at the same time each day. I watched them eat and regulated the amount of feed by their appetites.

I soon learned that my conclusion was right for no more pot-bellied porkers live on my farm. The greatest loss from such a deformity is due to the fact that so much of the food is absolutely wasted. An overworked stomach cannot get all the good out of the food that goes thru it any more than a threshing machine can get all of the grain when it is first over-fed and then allowed to run empty.

Just resolve right now, friends, to have no more unthrifty pigs. It isn't profitable and it isn't necessary.
Massachusetts.

C. S.

SHEEP TICKS.

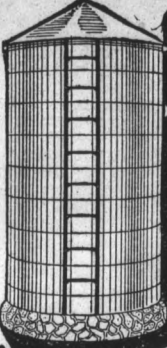
Can you advise me what to do for sheep ticks as my sheep have them and I do not know what to do for them.
Newaygo Co.

E. W.

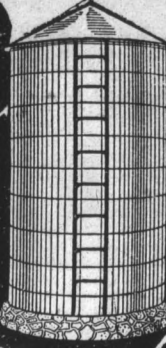
The sheep dips advertised in this paper, if used according to directions which come with them, will eradicate these pests from the flock. No profit can be expected from a flock of sheep upon which these parasites are allowed to prey.

MADE SOME NICE SALES.

Wm. Waffle, Jr., Coldwater, Mich., the well known breeder of Poland China swine, in remitting for his advertising writes: "I have made a nice lot of sales thru your paper. I will write you later in regard to a year's advertisement."



FILLS THE SILO FAST



Dear Sirs:—During the year 1907, Richmond, Mich. we purchased one of your size "C" ensilage Cutters with Blower attachment and found the same to be eminently satisfactory. The machine is capable of doing all you claim for it and upon actual test we were able to put into a silo 36 ft. high corn ensilage at the rate of 25 tons per hour, using a 12 h. p. engine. It was easy to cut at the rate of 15 to 20 tons per hour during the whole day's time. This season we had three 150-ton cement silos to fill and were under the necessity of getting a cutter which would do the work rapidly in order to get them filled in time. We are well pleased with the machine.

Yours truly, WEEKS BROS.

Wilder's Whirlwind Silo Filler

is built on lines that make it a very fast worker—it's the result of years of development and we confidently offer it as the highest attainment in a silo filling machine. It cuts or shreds and elevates all at one operation, and does it faster and with less power than any other machine on the market. It is easy to operate and quickly moved from place to place. Is low-down and handy to feed; quickly adjusted; traveling apron need not be taken apart when machine is moved. Has very strong fan blades, heavy gear and a simple stop and reversing mechanism. Write for interesting free catalogue—a regular Silo Filler Dictionary. You ought to read it through before you buy a Silo Filler.

Wilder-Strong Implement Co.,
Dept. 13 Monroe, Mich.

FOR ALL KINDS OF LIVE STOCK
STANDARDIZED
OFFICIAL FOR SHEEP
1-72



KRESO DIP No. 1

KILLS LICE MITES TICKS KILLS

ERADICATES MANGE ON ALL ANIMALS.
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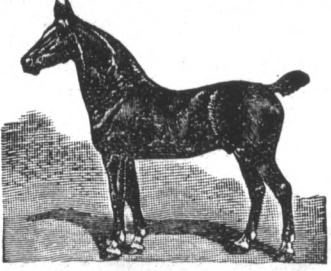
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VETERINARY

CONDUCTED BY DR. W. C. FAIR,
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Advice thru 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.

Enlarged Hock.—My three-year-old colt got kicked on hock seven weeks ago, leg swelled full, but most of this swelling went down with the exception of outside of hock joint; this appeared to remain but causes no lameness. E. O., Nashville, Mich.—You will find a bunch of this kind rather obstinate to reduce; however, you had better continue applying some iodine ointment every day or two; this will reduce it somewhat.

Cow Leaks Milk.—I read with interest the veterinary column and have searched for a remedy to prevent a cow leaking milk. She seems to be worse since running on grass. What had I better do for her? C. C., Spruce, Mich.—You had better order of the Lawrence Publishing Co., "teat plugs." This is the only remedy for an ailment of this kind. Drugs do not give very good results.

Catarrh.—I have a colt that has a discharge from both nostrils; she also has sore eyes—a film appears to be covering her eyes which seems to affect her vision, in fact, she is almost entirely blind, but she does not appear to be very sick. G. T. L., Columbiaville, Mich.—Your colt suffers from catarrhal influenza. Put one grain nitrate silver, one grain sulfate atropia in either one ounce rain or boiled water and apply to eyes once a day. Also blow some calomel into eyes daily. Give a tablespoonful salt peter and four tablespoonfuls sulfate soda at a dose in feed or as a drench twice a day.

Tumor on Tail.—I have a cow that has a large bunch on tail. When it first appeared our veterinarian cut it off and since removed the growth, but it fails to heal. This bunch is about the size of a hen's egg and on account of her switching she keeps the bunch bleeding and raw, otherwise this cow is apparently well. A. A., Suttons Bay, Mich.—It is possible that the tumor you refer to is of a cancerous nature and if so the tail had better be amputated above tumor, or cauterize it occasionally with a hot iron and apply equal parts borac acid, alum and tannic acid once a day and bandage.

Weak Heart.—I have a horse 11 years old that pants when only moderately exercised and appears to keep up this short breathing for some time after he stands still. Our veterinarian fails to help him. H. H. B., Lawton, Mich.—I am inclined to believe that your horse has a weak heart and this accounts for his breathing so fast. Give ½ dr. ground nux vomica, ½ dr. powdered digitalis at a dose in feed three times a day. Feed no clover, or musty badly cured fodder of any kind and don't allow him to stuff himself with too much food of any kind. The fuller he is the more difficulty he will have in breathing.

Paralysis—Rickets—Indigestion.—I have a lamb that seems to be doing pretty well, but took sick and seems to have lost use of both fore legs. When first noticed would start to walk, reel and tumble and gradually get so bad as to remain down. I also have a cow that seems to be out of condition, is dull and dumpy and is growing very thin. G. H., Fairgrove, Mich.—Your lamb will not recover, might as well be destroyed. Your cow suffers from indigestion—give 1 oz. bicarbonate soda, 1 oz. ground gentian, 1 oz. ground ginger and 1 oz. powdered charcoal at a dose in feed or as a drench two or three times a day. She should be salted daily and fed some grain.

Garget.—I have a valuable cow that has a caked bag. This trouble seems to shift from quarter to quarter and it is affecting her milk flow. J. B., Bloomingdale, Mich.—Your cow suffers from an infected udder; by filling the bag full of oxygen or sterilized air it might open it and do her some good, or if you had a suitable syringe, the udder should be washed out with one part carbolic acid and one part glycerine and fifty parts water. This office will soon be equipped to supply subscribers with a suitable syringe for irrigating a cow's udder properly without injuring her.

Mammitis.—I have a cow that took sick about a week ago. First noticed her udder quite inflamed and it has remained caked ever since. I applied needsfoot oil to udder and am inclined to believe that it has helped her. Our local Vet. examined her, but was undecided what had brot on this trouble. E. P., Muskegon, Mich.—Your cow suffers from an infected udder, bacteria having obtained an entrance perhaps thru the teats, multiplying and setting up an active inflammation of the bag. As you are not properly equipped with a syringe suitable to wash out quarter, you had better apply some weak iodine ointment daily and hand rub udder gently, but be sure and suspend the bag with a four-tailed bandage. This is very important in the treatment of udder troubles and I might add usually neglected. Give 1 lb. sulfate magnesia daily until the bowels move freely. Feed her grass and no grain. Also give 1 oz. hypo-sulfite soda in a quart of water as a drench night and morning.

Hernia—Knee Sprung—Distemper.—I have a colt five weeks old that is thriving but has a small rupture at the navel; I would like to know how to treat it. I also have a two-year-old colt that is knee sprung, stumbles some when he walks. I also have another colt that has a cough

with some discharge from the nose. This colt's mother is affected with heaves. H. G., Marlette, Mich.—The hernia being small it is possible that you can apply a pad and bandage around body which will help reduce bunch and allow the abdomen to close. When hernia does not hurt a young colt it is a good plan to leave it alone, for quite a number of them get all right. Apply equal parts turpentine, aqua ammonia and sweet oil to back tendons of colt three times a week. Give your other colt that has distemper 1 dr. sulfate iron, 1 dr. ground gentian and 1 dr. powdered rosin at a dose in feed night and morning. If the glands of throat are swollen apply some of the liniment I have prescribed for knee sprung colt once a day, until glands soften, then open abscess.

Pharyngitis—Splinter in Mouth.—I have a cow which three weeks ago commenced to spit up her food or when chewing her cud, part of the food runs out of mouth, sometimes probably a ten-quart pailful during the night—discharges are now more watery than at first. This cow has been running to grass. Will be fresh the first of January. I found a piece of wood ¾ inches long in back part of mouth and removed it, but she still continues to slobber. Our local Vet. examined her teeth and that they were all right. H. B. W., Quincy, Mich.—Dissolve 1 oz. borax in a quart of water and wash out mouth and gargle throat with some of this lotion three times a day. Grass is the best food for her. Also apply some iodine ointment to throat once a day.

Poorly Developed Udder.—I have a two-year-old cow that came fresh five weeks ago. Calf ran with her for three weeks; her udder is poorly developed, especially the two fore-quarters. I fail to find any obstructions in any of the teats, but am able to get but very little milk. I have thought that the milk from fore-quarters drained into hind quarters; however, I may be mistaken. H. M. W., Charlotte, Mich.—Your cow is not worth considering for dairy purposes, because she will not prove profitable; therefore, she should be fattened and sold for beef.

Infected Udder.—I have a cow that came fresh three months ago that has not milked well since. The small quantity of milk that she gives is yellow and slimy, somewhat like pus; her milk veins are large. For a few days one-half of her udder appeared to be caked. Can anything be done to restore her udder? T. V., Pierson, Mich.—Your cow will prove unprofitable for dairy purposes; besides, her udder can never be restored to its normal condition; therefore, I advise you to try and fatten her as soon as possible; by doing so you will save money.

Acute Indigestion.—I have had some poor luck with calves. Have lost four of late; they were between four and five months old. All of them were in apparently good condition when they took sick. We have been feeding separator milk with corn meal and cottonseed meal equal parts. They are kept in the barn in pens. Their sickness seems to come on very sudden; as they appear to take sick between meals. I would like to know what to do for them as there is no profit in raising calves for their hides. E. J., North Bradley, Mich.—I am inclined to believe that your calves die as the result of acute indigestion or else from some toxic poison. I suggest that you feed oat meal instead of the cottonseed meal and that you turn them out where they can get good air and sunlight. If you keep them in a basement stable, the change I suggest will be helpful to them. You will find grass much better food for them than timothy. Give a teaspoonful bicarbonate soda and a tablespoonful powdered charcoal at a dose in feed two or three times a day.

Azoturia.—I would like to know the cause, symptoms and treatment of azoturia. C. S. A., Bloomingdale, Mich.—The most common cause of azoturia is feeding too much concentrated food to idle horses that do not require it; besides keeping horses in damp, badly ventilated stables has a tendency to produce it. Horses that are working hard every day and allowed to stand in the barn a day or two or three are more apt to become affected, than if resting much longer. Therefore, to prevent azoturia in heavy breeds of horses, especially if they are fleshy, should not be fed more than one-quarter as much grain when idle a few days, as if worked. Feed them plenty the morning that they go to work. Bran, vegetables and hay is all that an idle horse should be fed together with the quarter-grain allowance. The symptoms are stiffness, inability to walk, profuse perspiration, quick breathing and great pain, later paralysis of hind quarters. Treatment, get the bowels and kidneys to act as quickly as possible. Draw off urine with a catheter; this will be found thick and about the color of coffee. The bladder should be emptied twice a day; however, nearly all horses get relief when the bladder overflows; however, in some cases the urine sets back and appears to become reabsorbed into the blood and this, of course, is bad. Apply hot fomentations to back and hind quarters every hour or apply some stimulating home liniment. Anemas of soap and hot water are very useful. The veterinary profession up to the present time thruout the entire civilized world have not yet discovered what can be called a remedy that will cure severe cases of azoturia; however, the animal should be kept quiet and if possible stopped immediately when the attack comes on. If this is done very few cases will prove fatal—it is proceeding on the journey that kills them. Very few horses would tumble down if looked after when first taken sick. After a horse gets down and is allowed to lie long on their side, they usually die, but if kept in an upright normal position quite a number will recover. Give chloral hydrate to keep the animal quiet. Give acetate potash, nitrate potash, rosin or buchu to act on kidneys. Give linseed oil, aloes or salts to open bowels.

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WEANLING Pigs and bred Sows at bargains to quick buyers, from large-styled, prolific Poland-China sows. ROBERT NEVE, Pierson, Mich.

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Poland-Chinas. Nothing but spring pigs. Let us have your order now. WOOD & SONS, Saline, Mich.

LARGE ENGLISH YORKSHIRES. Boars ready for service \$15.00; Gilts bred for fall farrow \$20.00; spring pigs either sex. Satisfaction guaranteed. COLON C. LILLIE, Coopersville, Mich

POULTRY AND BEES

AN EXPERIENCE, WITH ITS ATTENDANT LESSON.

The recovery of the poultry business from last year's effects of the money stringency was this spring brot home to me in a striking manner. For some months I had been obliged to refuse demands for poultry for breeding stock. A White Holland turkey tom was needed, and as the breeding season approached and extreme cold diminished the bird was ordered. But, while sending the breeder's price, I stipulated that in case his first-class stock was gone he should return the money rather than ship anything not A1 in quality. In a few days back came the money, with polite regrets that first-class turkeys were all sold.

My own bird would almost do, but I wanted an older one and immediately got busy. Michigan Farmer advertisers of the breed were all consulted—and all reported "sold out." Then every reputable breeder of White Hollands in Michigan, Ohio, Illinois, Wisconsin and Indiana, whose address could be obtained, was written. Each and all reported the same condition—"First-class stock all sold." From only one came any offer. That breeder had a tom, hatched in July, weighing presumably eighteen pounds, which he modestly offered for \$6.

My own bird, hatched in June, had matured rapidly during the winter months and, by the time I had finished the correspondence, was so well grown that I would not have exchanged him for the best yearling that could be pictured—on paper.

Still, I learned a lesson. It has been my custom to buy turkeys for breeders in February and March. Hereafter I will plan to have all breeding stock shipped at the proper time—in the fall.

Saginaw Co. E. H. McDONAGH.

(The above not only shows the advisability of ordering early but also indicates that the demand for good breeding stock is in advance of the supply.—Ed.)

CLEANLINESS MOST IMPORTANT IN SUMMER.

Altho the necessity for cleanliness in poultry houses and yards has been preached since the establishment of the first poultry journal, there seems to be just as much need for preaching today as ever. A trip of inspection will show many yards where cleanliness seems to be a secondary consideration. While this, to some extent, applies to professional poultrymen, it is more applicable to the hundreds of small farm and village flocks, not one-fourth of which receive the attention they should have to make them profitable.

It is no uncommon experience to see a little flock of pure-bred fowls, bot perhaps in a burst of enthusiasm at some poultry show, drop off one by one or become weak and sickly because of filthy quarters. Then the farmer says pure-breds are not healthy, and goes back to mongrels. This is due in part to the fact that the average farm or village flock is regarded merely as a source of supply for the table and occasional pin money for the housewife. Even at that they well repay one for careful attention.

To keep it in perfect sanitary condition the poultry house must be well built and the perches, etc., conveniently arranged. Walls ought to be tight, not only for warmth but to afford as few hiding places for lice as possible. For a house built of rough, uneven boards a lining of tar paper is desirable.

It has been my experience that dirt floors are preferable to all others if properly made. They are more easily cleaned than board floors, warmer, drier, and better in every way. The floor must be several inches higher than the ground outside, and good under drainage is essential.

Droppings ought to be removed from the house as often as is convenient. Daily cleaning is preferable. Only a few minutes are required each morning. In some farm poultry houses I have seen the droppings scraped in piles at one end of the house and left to spread disease. Often, too, the house is made a catch-all for miscellaneous rubbish. All sorts of refuse is tossed in a heap, making a hiding place for rats and a breeding place for innumerable vermin.

No matter how clean the house is kept otherwise, don't fail to oil the perches frequently; pay particular attention to the

under side. Use good commercial lice paint or kerosene with a little carbolic acid. Use insect powder and whitewash freely. Spray every crack and corner.

During the summer I always keep several dust baths handy in various parts of the yard, but it is necessary to have one inside for rainy weather. If there is a scratching shed connected with the house put the dust bath in it. No matter how limited your space, have one somewhere. It is indispensable for the health of the fowls.

Feed troughs and drinking vessels require frequent attention during the summer. Particles of food left in the troughs soon become sour and if then eaten by the hens may cause serious bowel trouble.

It is no easy matter to attend to the thousand and one things there are to be done about a poultry yard. Cleanliness means constant watchfulness and lots of work, but it cannot be neglected if one is to succeed.

Ohio.

N. S. GREEN.

SOME FACTS ABOUT HIVING SWARMS.

To the beginner in bee culture, or the one about to embark in this pursuit, there is one feature connected with the industry which is usually looked forward to with much fear and anxiety, and that is the hiving of swarms. Yet this is not so difficult if we go about it in the right way. After the swarm has clustered nicely, and the bees have become quiet, spray lightly with a little cold water to abate the fever of excitement and to assure more compactness when hiving. Then take your swarm catcher, slip it right in under the cluster and jar the limb. If the bees have clustered high up in a tree get a pole long enough to reach them and fasten the swarm catcher

traps on the hive to catch the queen. I consider the queen trap an indispensable article in the apiary unless one is willing to watch his bees continually during the swarming season, and even then it is a great convenience. The trap is so made, that, the queen once in it, cannot return to the hive. This enables the apiarist to determine, with the exercise of a very little attention, whether a swarm has issued during his absence by the conduct of the bees and the greater or less cluster remaining with the queen in the trap. If a swarm has issued and returned, usually the trap is found full of bees or nearly so. Near my apiary are several large maple trees. Heretofore I have had a number of swarms go to the very top and cluster there. They were entirely out of reach and would remain a few hours and then depart. But with a queen trap it is a real pleasure to hive swarms. When the swarm issues the queen cages herself and cannot leave with the bees. The apiarist can replace the old hive with an empty one and fix to it the trap containing the queen. The bees will remain from 10 to 20 minutes when they will return and enter the new hive. The apiarist can then release the queen. She will run in with the swarm and the hiving is complete.

Another important thing is to keep the empty hives in a cool, airy place until needed. A swarm placed in a hive that has been out in the hot sun is much more apt to desert. After the swarms are hived their hives should be kept well shaded for a few days. The most satisfactory shade is obtained by the use of a shade-board large enough to project over the hive six inches or more all around. But this board should not rest flat upon the hive cover; if it does, and is dark colored, as it soon gets to be when made



How the Little Folks Help—Children Hiving a Swarm while the Apiarist is Sick in Bed, Neither of them Receiving a Sting.

to the end of it. We sometimes use a common peach basket for this purpose. When you have the basket right up under the cluster, give the pole a sharp jerk upwards, which motion will jar the limb and the bees will drop into the basket. Have the hive under the tree. Dump the bees in front of it and they will march in like an army. The bees will commence to give a contented hum, and if there are any remaining on the tree they will hear it and join the throng. In the evening the hive can be carried to the location where it is to remain permanently.

Sometimes a swarm will cluster on the trunk of a tree or wall. Then it will be necessary to use a brush to get them into the basket. The ringing of bells and beating of pans, and all such notions are of no apparent avail. A first swarm will most always settle. I have never yet known it to miss, providing the queen was with them, and if the queen is not with them they will most surely return to their hive. Sometimes a swarm will hang on to a tree all day, and then again they may depart in a little while. It is better to hive them within half an hour after they have issued, if possible.

Success with the Queen Trap.

Still a better way is to have queen

from unpainted lumber, it may do more harm than good. Provided the cover is painted white, there should be an air space of at least half an inch between the two. With cool, well shaded hives, and at first a brood-nest in proportion to the size of the swarm, I do not consider it necessary to raise the hive up from the bottom board all around. I allow only the usual entrance in front, and place a queen trap or entrance guard on until they get well settled down to work. Of late it is very seldom that I have swarms attempt to desert, but I do not wish to run any risk with big swarms, and when swarms desert they often leave without clustering. A good natural swarm, hived on full sheets of foundation, or, still better, on full combs from deceased colonies, may, in a good year, prove as profitable as a producer of honey as the colony from which it issued. Instances are plentiful of swarms filling their hive and swarming again, especially in small hives.

An ordinary swarm in the height of the season consists of about 45,000 bees—the mother, or queen, the workers and the drones. The mother bee, in the busy time, lays 3,000 to 4,000 eggs a day; for this she has her being.

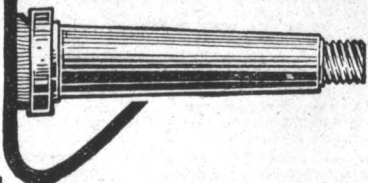
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DETROIT, JUNE 19, 1909.

CURRENT COMMENT.

Each year as the Farm Exhibits at fair season approach, everybody is urged to make some kind of an exhibit at these agricultural shows, both local and general. But unless some previous preparation has been made to that end the average man, and particularly the average farmer, finds it difficult to select a product for exhibition, even if he were so disposed. The consequence is that the professional exhibitors take down the bulk of the prize money, especially at the larger fairs where a liberal premium list is offered. Thus, in a way, the products shown are not fairly representative of the great agricultural interests of the territory from which the fairs draw their patronage, and the farmers in that territory do not reap the greatest possible benefit from these annual exhibitions. The man who attends an agricultural show simply as a spectator does not get the benefit from the exhibits that he would if he were represented in them. In that event he would make a more careful comparison as to quality, varieties, etc., and would gain no little personal knowledge in this way that would be of value to him in his business in succeeding years.

The local fair is a good thing in any community, and merits the support of every public spirited citizen in the community in which it is held. But too often it is made but a meeting place for a neighborhood visit, and the benefits which might be derived from a good agricultural exhibit are lost by default. It is often that too much trouble to make an exhibit at these fairs where the premium is not much of an inducement, and so the percentage of fair patrons who make exhibits at these local fairs is generally small. Too often the same men who should exhibit at these fairs may be heard to say that if they stood any chance of winning they would be glad to exhibit at the district or state fair, but that the professional exhibitor gobbles all the prizes at these shows and that it is of no use for the common farmer to undertake to compete with them. Why this feeling is so general is hard to determine. Surely the farmer who grows a liberal acreage of the several staple products which he produces should be able to pro-

duce a better product and make a better selection than the man who grows small quantities for exhibition purposes only, or worse yet, who collects his exhibits from other farmers in his neighborhood in return for furnishing them seed.

If more farmers thruout the state would plan to make exhibits at their local, district and state fairs the coming season, they would be gainers in a two-fold way. They would get more benefit from the fair itself as above suggested, but they would reap a much larger gain in the added interest which they would take in the growing of the crop from which the selection for exhibition purposes is to be made. Without question, it would be both interesting and profitable for any farmer to plan to make such exhibits this year in some one or more departments, and work from now on to that end. It will mean that the rye will be cut from the wheat from which selections are to be made. It will mean that the seed grain will be more carefully saved, that the vegetables will be given better care, that the fruit will be properly thinned as well as sprayed, and that in many ways, tho all unconsciously perhaps, his business will be given a degree of attention in all its details that will be apparent at harvest time. That pardonable pride which any farmer feels in the production of a superior article, will often prove a more certain incentive to good farming than the promise of additional profits. For this reason, if for no other, it will pay any farmer, whether he is engaged in special or general lines of production, and whether he operates on a large or a small scale, to make definite plans for the making of at least a small exhibit at the fairs in which he has a particular interest this fall.

While the Senate Progress in Tariff is still wrestling with Making.

tariff schedules, and the date of final action on the matter remains indefinite, reported agreements in committee with regard to some of the vexed questions at issue may be taken as an indication as to how some of the schedules in which our readers are interested as producers and consumers will finally be fixed. A previous comment in these columns referred to several of these points at issue, such as the duty on hides, ingredients of fertilizers, lumber, etc. A recent communication from our Washington correspondent indicates that an agreement has been reached whereby the Senate will restore the 15 per cent on hides, which was eliminated from the bill by a large majority in the House, asserting that a straw vote recently taken in the Senate indicated that there would be sufficient votes available to reinstate the provision. This, of course, would precipitate a fight on this point in the conference committee in which the differences between the two houses will be adjusted, but it is asserted by our correspondent that there is said to be an understanding that a compromise will be made by making the tariff on hides 10 per cent instead of 15 per cent, as in the Dingley act. The controversy touching the placing of fertilizer ingredients on the dutiable list has narrowed down to the one commodity of sulfate of ammonia which, from latest advices, the Senate committee seems insistent upon making a dutiable article. It is hoped, however, that thru the strong pressure which is being brought by manufacturers and users of fertilizers alike, this commodity will be dropped from the bill before its final passage. The fate of the other schedules which have been mentioned in previous comments cannot be prophesied with any degree of accuracy at this time.

It is a matter for congratulation that the discussion of this vital question by Congress has not had a greater influence upon the business conditions of the country than has been apparent. While complaints are heard from some quarters, business along agricultural lines was certainly never in a more satisfactory condition, so far as producers are concerned, and if prophecies of an improvement in business conditions generally after the question is finally settled are well founded, it would appear that the farmers of the country will have little cause for complaint. But it is now as always, both entirely proper and the undoubted duty of every interested producer and consumer to advise their representatives in both houses of the Congress touching their views on these and other tariff problems, which have been mentioned from time to time in this discussion. If they do not they will have no just reason to complain of the outcome, even if it does not wholly satisfy them.

HAPPENINGS OF THE WEEK.

Foreign.

The second company of the Philippine native constabulary mutinied recently on the island of Mindano, and Brig.-Gen. Bandholtz, a former Michigan man, has been sent to capture the revolt. The men took all the equipment that had been entrusted to them and escaped to the mountains of the island.

An unconfirmed report states that 5,000 persons were killed by tribesmen in the northwestern part of Persia recently. The authorities have called upon Russia to send protection at once.

An engagement is reported at Djakovitch, Albania, between 10,000 Albanians and 12 battalions of Turkish troops. The former were repulsed. Another encounter occurred at Salmas between Turkish and Persian troops.

The Italian board of immigration are working for a law which will prevent the issuing of passports to girls under 21 years of age, who wish to leave for America, unless their parents are already in this country. The board has been investigating conditions here under which many of these girls are placed and the above action is the result of the findings.

The ceremonies connected with the crowning of the Czar of Bulgaria are now impending. The regalia which the prince will use was made ready 17 years ago when it was that the powers would sustain the country in her attempt to throw off the yoke of Turkey.

The big steamer Perry G. Walker, crashed into the lower gates of the Canadian canal at the Soo last week and she, together with two other boats, were sent to the bottom by the rushing waters which were set free by the damaged locks. The current has been gotten under control. The false gate which had been prepared for just such an emergency, failed to work when first tried but after much effort the temporary device was gotten in place and now work is being pushed on the new gates.

President Penna, of Brazil, died last Monday. It was not known even by those in close relations with the president that he was seriously ill. He had been suffering from influenza but was improving until the last few days when a relapse suddenly brot the end. He was born in 1847 and has been in the public service of his country for many years. He was one of the men who drafted the present constitution of Brazil.

The circumstances surrounding the coroner's investigation of the death of Mrs. Ruiz who is held by the officials to have committed suicide, are so unsatisfactory to the people of London, England, that interested parties are now making demand upon parliament to compel the doctors who took the evidence to make public the findings.

The brother of former president Castro of Venezuela, left that country a few days ago, for Columbia. The loss of power on the part of his brother has made conditions unpleasant there for the family. It is also reported that the former president has purchased a large number of rifles from Bulgaria and has shipped them to the United States for the purpose of reshipping to South America, presumably to use in an insurrection against the present administration. The munitions are now said to be in this country.

Field Marshal Yamagata, president of the Japanese council, has resigned that position. He will be succeeded by resident general to Korea, Marquis Ito. The latter recently left the affairs of Korea into the hands of native officials until the new order of things was arranged.

The Russian government is becoming anxious about the influx of Koreans, Chinese and other aliens into the Amur district of Asiatic Russia. The duma is now considering restrictive measures and thus prevent the loosening of Russia's grip upon that district.

Gen. Quirito, commander of the revolutionary forces of San Domingo, that were conquered some time ago, has been captured and will be deported from the island.

Gold is reported to have been found in Saskatchewan near Paynton and a large number of claims are now staked out. The samples tested showed nearly a thousand dollars per ton of quartz and over twenty-six dollars per ton of gravel.

National.

The Cosmopolitan magazine company is being prosecuted by the United States government for reproducing in miniature copies of gold certificates upon the pages of their publication.

Miss Jane Addams of Chicago, has been chosen president of the national conference of charities for the year 1910.

The citizens of Honolulu have presented a petition to President Taft asking that R. W. Breckons, United States attorney to the Hawaiian Islands, be recalled upon the grounds of unfitness for the position. His resignation was accepted by Ex-president Roosevelt, but was afterwards withdrawn.

The Ohio penitentiary authorities at Columbus recently discovered a plot to free 500 prisoners from their cells. Keys to as many cells were found in one of the prisoner's quarters.

Last week eleven arrests were made among the leaders of the black hand of Ohio. Notwithstanding this, letters of extortion are still being sent to intended victims.

The Cunard steamer Slavonia struck a rock off the Azore islands, June 10. Her passengers were taken off by the steamer Irene. Altho the occupants of the unfortunate vessel were in extreme danger before the arrival of the Irene, there was much coolness shown by them and but for this many may have perished.

The fight between the Detroit common council and the ferry company carrying passengers from Detroit to Belle Isle is still on. The council is now expecting to secure bids for the job from other parties and they hope in this way to secure service upon their terms either by bring-

ing the present well-equipped company to time or by making terms with others.

It is reported that President Taft is opposed to the present measure in congress providing for an income tax. His followers propose to amend the present measure by asking the states to pass upon an amendment to the constitution so that congress may have the power of placing a tax on individual incomes.

Three negroes have been convicted of complicity in the death of Walter F. Schultz, a Chicago artist.

The number of vessels being asked for by the different cities of the great lakes, has raised the question in the naval department as to the recent treaty made with Canada which provides that neither nation will keep war vessels upon these waters. There is now a number of these boats used by the naval reserves of the several lake cities for training purposes. The French press is protesting against the withdrawal of Ambassador White from service in that country, as has been intimated.

The prison department of New York state is planning to deport 319 alien prisoners. Recent investigation revealed the fact that these prisoners were being kept by the state when the authorities had the power to ship them back to their native land. This is the disposition that is now proposed.

A diplomat school has been opened in Washington to prepare men for service abroad. Fourteen men have qualified for entrance to the course offered by the school.

Japanese authorities have approved the arrest of 12 Japanese labor leaders who, it is charged, have been attempting to bring on a strike and seize the property of sugar companies in the Hawaiian islands. The leaders are now being held for trial.

The Canadian government is reported to be planning a canal from the Red River district thru to Hudson Bay. The purpose of this undertaking is to tap the great wheat country by waterway and thus divert shipments from the railroads and longer routes now being used.

Forest fires have been raging in Canadian woods along a line from Lake Superior across Ontario to Maine. Much property has been destroyed.

NATIONAL CROP REPORT.

The Crop Reporting Board of the Bureau of Statistics of the United States Department of Agriculture estimates, from the reports of the correspondents and agents of the bureau, as follows:

18,391,000 acres, or 1,133,000 acres (6.9 per cent) more than sown last year. The condition of spring wheat on June 1 was 95.2, as compared with 95.0 on June 1, 1908, 88.7 on June 1, 1907, and 92.6 the June 1 average of the past ten years.

The condition of winter wheat on June 1 was 80.7, as compared with 83.5 on May 1, 1909, 86.0 June 1, 1908, 77.4 on June 1, 1907, and 80.5 the June 1 average of the past ten years.

The condition of rye on June 1 was 89.6, against 88.1 on May 1, 1909, 91.3 on June 1, 1908, 88.1 on June 1, 1907, and 89.4 the June 1 average of the past ten years.

The area sown to oats is about 32,422,000 acres, or 78,000 acres (0.2 per cent) more than the area sown last year. The condition of the crop on June 1 was 88.7, as compared with 92.9 on June 1, 1908, 81.6 on June 1, 1907, and 88.4 the June 1 average of the past ten years.

The area sown to barley is about 6,881,000 acres, or 235,000 acres (3.5 per cent) more than the area sown last year. The condition of the crop on June 1 was 90.6, as compared with 89.7 on June 1, 1908, 84.9 June 1, 1907, and 90.6 the June 1 average of the past ten years.

The condition of meadows (hay) on June 1 was 87.6, against 84.5 on May 1, 1909, and 96.8 on June 1, 1908.

The condition of pastures on June 1 was 89.3, against 80.1 on May 1, 1909, 97.7 on June 1, 1908, and 91.1 the June 1 average of the past ten years.

Details by states of the above and other crops investigated will appear in the June "Crop Reporter."

MICHIGAN CROP REPORT.

Wheat.—The average condition of wheat in the southern counties is 85, in the central counties 74, in the northern counties 80 and in the state 82.

On May 1st the condition of wheat was reported as follows: In the state and southern counties 78, in the central counties 71 and in the northern counties 80.

The per cent of wheat that will be plowed up, because winter killed in the southern counties is 3, in the central counties 7, in the northern counties 6, and in the state 5. The damage by Hessian fly in the southern counties is 2 and in the state, central and northern counties 1. The total number of bushels of wheat marketed by farmers in May at 102 mills is 54,191 and at 58 elevators and to grain dealers 27,897 or a total of 82,088 bushels. Of this amount 59,994 bushels were marketed in the southern four tiers of counties, 19,729 in the central counties and 2,365 in the northern counties. The estimated total number of bushels of wheat marketed in the ten months, August-May, is 9,500,000. The amount of wheat yet remaining in possession of growers is estimated at 1,000,000 bushels. One hundred and four mills, elevators and grain dealers report no wheat marketed in May.

Rye.—The condition of rye in the southern and northern counties is 88, in the central counties 82 and in the state 87.

Oats.—The condition of oats as compared with an average, in the state and central counties is 85, in the southern counties 84 and in the northern counties 90.

Corn.—The acreage of corn planted as compared with the average for the past five years, in the southern counties is 98, in the central counties 96, in the

(Continued on page 645).

Magazine Section

LITERATURE
POETRY
HISTORY and
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The FARM BOY
and GIRL
SCIENTIFIC and
MECHANICAL

This Magazine Section forms a part of our paper twice a month. Every article is written especially for it, and does not appear elsewhere

THE FIRST MICHIGAN FARMER—Agriculture of the Indians of the Peninsular State.

BY W. V. SMITH.

THE Indian was a man of the woods. The old term "savages," which was applied to them by the early writers, was especially apt, for it meant "forest people." The present and corrupted form of that word, which we find in our modern, "savages," is both inapt and misleading. The earlier term had reference to and justification in the habits of the people, and no single word can better describe the aboriginal occupants of this peninsula than the old one. The later word is representative of a conception unconnected with the original one, and it has usurped the former, and does violence to both the cause of truth and to the revelations of ethnology.

To these people of the forest who were at best few in number and had so large and productive a country, exuberant nature had, from the bounty of the woods and streams, given so much that grew spontaneously, that their simple wants were generally supplied without recourse to the art of agriculture. The nut-bearing trees, the wild berries and fruits, the edible roots and bulbs, the fish from the lakes and streams, and an abundant supply of more nourishing meat during a great portion of the year, to which was added the very best of nature's sweets, that of the maple tree, left little real necessity for husbandry in its advanced stage, and so the first farmers of Michigan were not skilled in the art, but they were farmers, and they were the pioneers, long before the white tide of migration from the east turned into this state and made of it one of the most productive of the sisterhood. As such pioneers they deserve a more conspicuous place, and greater glory, in the agricultural history of the state than has ever been accorded them. It is to give them this recognition, and to aid in placing the Indian in his proper place as a human being, with the attributes and impulses, the motives and affections, of humanity, that this article is written.

From local study and investigation, the writer is satisfied that the first agriculturists of Michigan, if cultivation of the soil be the test, were of Iroquoian stock, and were probably a branch of the great Huron branch of that race. The reasons that have led him to this conclusion involve too many considerations to make it practical or profitable to enter upon a discussion of the same in this article, but it is enough to say that the people who gave their name to the second in size, and first in importance, of the great lakes, and who unquestionably held full and undisputed possession of the eastern shores of that lake, from the facility of transportation across that lake in their canoes, must have held the region contiguous to the western shores of the same. It is, however, probable that that earlier people of the Indian race that once held the valley of the Ohio River and the contiguous territory, who were also an agricultural people in a primitive way, knew this peninsula as a favorite place for hunting in summer, for gathering berries, and later for the nuts of its rich forests, as well as for its fishing advantages, yet it would seem to have been a mere hinterland to their more temperate and southern homeland along the Ohio. It was doubtless there that they spent the rigor of the winters, except in case

of some adventurous trapper who may have wintered here to procure the furs that were of essential utility in the economy of the forest people. Fur seeking must be remembered to have been limited to the wants of the Indians for clothing, and in the code and ethics of that people, needless destruction of animal life was of extreme criminality.

Assuming that the first farmers of Michigan were of the great family, or race of the Iroquois, as I do from the nature of the remains in the eastern portion of the state, and from the fact of occupancy of the other shores of the border of the lakes by a people of that race, it follows that their advancement in agricultural pursuits should be measured by the standards of that race.

The Iroquois have a myth, or tradition, of an early hero, (that term perhaps expresses their conception as well as any in English can), named Ta-oun-a-wa-ta. This is probably the name which the poetic myth of Longfellow has perpetuated as Hiawatha, but the myth of Longfellow is rather an invention of his own poetic imagery, than a real Indian tradition, and the name in true Indian lore denotes one who, away back in the early period of their history, advocated the habitual practice of agriculture as a policy which was an advance upon the customary reliance upon the spontaneous growths of field and forest. That these

tribes came to them in winter, offering themselves as slaves forever in exchange for the means of sustaining their miserable lives. These villages were to be found across the state of New York, where the principal families of the great race were seated, westward to the lake of the Hurons, and, as I have suggested, on the Michigan side, at least along those streams that fall into that lake and the other lakes and streams that now form the border between Canada and this state. Here are to be found remains that are of undoubted Iroquoian origin, and here lived and flourished the first people who, as an habitual policy, followed agricultural pursuits instead of depending upon the spontaneous bounty of the fields, forests, lakes and rivers, for their entire food supply, and it must be remembered that food-getting is the great function of all animate things, and the more primitive the conditions, the more intense is the struggle, and that all men, however civilized, cultured and refined, are within a few days only from savagery in its intensest form, if the food supply is cut off.

In North America the absence of domestic animals made development along pastoral lines, as was the development of many of the early peoples, practically an impossibility, and thus the agriculture of the Indians was of greater import in the economy of the forest people.

had made the ground fit, the proper place was selected for planting of the "three brothers," as the Iroquois called the maize, beans and squash. The favorable place was some clearing made by a fire, which from the casualties of forest life, or from having been purposely set, were common. As the Indians were few in number, and as an average family was very small, the number of children born being very few, and as each family could, if they desired, claim possessory rights over several square miles of good lands, the selection of a place for their agricultural activity was easy. This was done by the women, for among this people the title to the lands was ultimately in the women, and any treaty made by the men, however solemnly, was subject to the veto of the women, whose title was based on the fact of their use of the same for agricultural purposes.

The spot selected, the ground was dug up in a crude manner by means of sharpened stakes, or rude spades, made from the antlers of deer, elk or caribou, and in the hills were planted the three brothers, maize, beans and squash, all in one hill. It is also certain that when a woman found a promising tree of the wild plum, or other fruit, she placed about it a barricade, or fence, and thus asserted her proprietary rights, which were sacred to the Indians, and these also were made to protect the tree against predatory visits of animals which might also fancy the same fruit that was de-

sired by the woman. In the Seneca language is found an old word for fence, which suggests the antiquity of the practice of fencing.

The care of these crops was also a matter of religious ceremony, and at the planting festival, the maker of the world was again thanked for the favorable weather, the sunshine, the rains, and besought to grant an abundant harvest.

The necessity for rain was appreciated by these people of the forest, and their solicitude for the right weather was a matter of daily recurrence. No one who regarded the precepts of their ancestors that had come down to them from earliest times, was unmindful of his obligation to give daily thanks to the Maker for all blessings, and the pious Indian never ate without facing the east, the place of the morning, the south, the west, the place of the evening, and the north, and uttering a solemn recognition for the gift of life and its blessings, and when he faced to the north, whence came the cold winds, and storms, he sought to appease the malignant one who sent them. It is likely that in these early times, when the forests were so generally standing, the danger from drought was less than at the present time.

These three brothers were the original agricultural products of this peninsular state, and were in due time garnered into the baskets of the people of the forests, and often buried to keep them away from the frost.

When the green corn was at its best, the great festival of the year was held, which was in the nature of a thanksgiving and was an old custom of the forest people in this territory centuries before the Puritans had inaugurated their annual custom in New England. It was especially proper among these Indians, for was not the maize the principal gift

THE STATE I LOVE—BY MRS. TAYLOR HARRIS.

Hail Michigan! Than which there is
No other state more fair,
Tho' 'tis an alien sings thy praise,
And worships from afar.

I love the sweep of the inland seas
That wash against thy shore.
Along the stretch of glistening sands
The pounding billows roar.

I love thy rugged, sunlit hills,
And limpid, shimmering lakes,
Dear to my heart are the eerie sounds
The moaning pine tree makes.

Fair are thy tended acres,
And thy broad, rolling fields;
Sweet is the purple lucious fruit
The sun-kissed vineyard yields.

Filled to the top are the massive barns
With golden, garnered grain,
The thrifty farmer views with pride
The wealth of his domain.

Broad rivers and clear streamlets
Reflect thy azure skies.
The depths of the northern forests
Are the hunter's paradise.

Fair villages adorn thy slopes,
With here and there a place
Where dwell in peace the remnants of
A disappearing race.

In thy thriving, prosperous cities,
In the busy marts of trade,
The steady, ever-onward march
Of progress is not stayed.

Fair Michigan, the banner state
Of all the golden west,
May blessings manifold be thine,
Arcadia, the blest!

early Indian leaders of that should have among them one who in early times had noted the effect of those periodical famines that followed as a natural and certain result on the failure of the supply of nature's foods, for example the edible nuts, with a consequent migration of those animals that also depended upon the same, and who by his eloquent advocacy of the planting of maize, as a remedy, and that such advocacy should bear fruit in a changed policy, with consequent immunity from the suffering and want that was certain to fall upon the more improvident tribes who depended exclusively on the chase, is readily acceptable as a most reasonable conclusion. That such a person would be afterwards regarded as a benefactor to his people is also a natural assumption, and such was Ta-oun-a-wa-ta, the sage or hero of the Iroquois, who, like Odin, taught his people agriculture, and afterwards, when he had gone on to his reward, sent the mist and rain to aid his people and fight away famine.

And so the Indians of the Iroquois race became, like our ancestors in Asia, Aryans, or men who turned up the earth—plowmen, in a limited sense—and when the first white men came to America these Indians were to be found in their villages, with frame houses of considerable comfort, and about their habitations were fields of maize, beans and squash, and they told how in time of want other

Along these streams of the eastern portion of our state, when the feast of the new year was gone by about a month, the first period of out-of-door activity in garnering the products of the forests began. It was the making of the maple sugar. This was the work of the women and younger men, and the operation was to cut into the side of the tree. The prevalence of the black variety of the sugar maple in this region must have made this one of the most favored regions for sugar making. Beneath the slanting gash, they inserted a spout, made probably of ash which lends itself so readily to splitting for basketry, and the sap thus started was caught in receptacles of wood or pottery. It is probable that this people, like the lad of the present day who taps the trees on the lawn, utilized all the various receptacles that would hold sap during this period to catch the same, whether they were the wooden troughs, the pottery vessels, or the skins, so often used to hold liquids.

After the season of sugar making was over, a suitable and proper religious observance was had by the festival of the maple tree, at which the maker of the maple was thanked, and the tree itself. The Indian in his primitive state was more religious in his thankfulness for the blessings of nature than the average white man of this day, except in revival season.

A little later when the warmer weather

of Him-who-made-us, to the people of the forest. Its adaptability to the uses of these primitive people is most apparent, and it was probably the salvation of the early pilgrims in Massachusetts.

In case of failure of field crops there was need of more diligence in gathering the nuts and fruits of the forest, the roots from the ground, and the beech, the walnut, the hickory, all paid tribute, and, even with diligence, it is likely that at times these people were driven to take temporary refuge in a milder climate farther south during the winter's rigors, to return at the next return of spring, enfeebled in numbers, and weakened in endurance, to take up again the burden of providing for the future.

With their facility of travel, such periods of want were apt to be general, and in that case all that of warfare or feud was laid aside in the more important need of activity for fighting the famine, and thus war and famine never came in company. Besides, the accompaniment of disease with famine made the people upon whom they fell the objects of careful avoidance, even by their enemies.

This is a brief and imperfect tribute to the first farmers of Michigan, who beyond doubt lived, and in their primitive way loved, and fulfilled the plan of their humble being along the streams of eastern Michigan, and these views of their status are based upon facts which, by long study, have come to be known to those who are curious of such things.

SLIM TRIES REFORMING.

BY HOWARD DWIGHT SMILEY.

Now, anybody, to pipe that house off, would a' said it was a dead sure cinch, and I sailed around to the back door and slammed for a handout with all the confidence of an Arkansas razorback tackling a bull snake.

Howsomever, I wasn't such a judge o' house-nature as I thot. The large guy with the fierce black mustache and stony glare, who opened the door, didn't waste any time in preliminaries, but just laid hold o' me with his two hands and one boot and h'isted me back into the street with promptness and dispatch that made my head swim.

"There!" says he after he'd slammed me down in the ditch and walked on me a spell. "Mebbe that'll teach you not to come begging around my house! Go get a job and earn your own grub, you big lubber! Now get out o' here!"

"Well!" thinks I, as I limped away; "mebbe he's right. The life o' a hobo ain't all straw flops and set-downs, and perhaps the time has come for me to change my profession for something a little less strenuous."

I mooched over to the next street and tackled another house which didn't look quite so aristocratic as the first, but here a nice old lady invited me right in and set me down to a hot breakfast. While I was eating I thot it over.

It has been many years since I had even thot of work, and the idee was a sort o' novelty. The more I thot about it the novelier it become, and by time I had stowed the grub I was eager and anxious to reform.

"Ma'am," says I, "do you know o' any place in this town where a man can find a steady job?"

"Why, yes," says she. "Batterson's hiring help. His place is right over there on the corner; that big paper mill."

So after I'd smoked a couple o' butties I hiked over to the mill, butted inside and asked the first man I met where the boss was. He looked me over kind o' grinning, pointed to a door and said I'd find him in there, and to walk right in.

I walked right in. If I'd been next to my job I'd turned right round and walked right out again; but, instead, I stayed awhile.

A man was setting at a big desk with his back toward me, writing a letter.

"Set down," says he without looking up.

I picked out a big arm chair with cushions in it and sat down.

His nibs writes on for quite a spell, never looking my way once; but finally he throws down his pen, sweeps his paper to one side and whirls around.

"Now then—" he began, and stopped short.

The only thing that prevented me from blowing out the door and down the street like a runaway locomotive was the fact that when I saw him I became instantly and totally paralyzed.

He was the same guy who'd give me the licking that morning!

"Well, well, well!" says he, after he'd

glared at me a spell; "you're back, be you? Curious how we two get together, ain't it?"

"Tis, ain't it?" I managed to say.

"You've come for revenge, I suppose," says he in a loud growl.

"I suppose so," says I, because them was the only words in the English lingo I could think of just then.

"Well, I'm too busy to attend to you myself, but I'll see that you get what you're after, all right," says he, pushing a button on his desk.

Before I could explain and straighten things out, a man with a penholder behind his ear came bobbing in.

"Go out and get the yard gang," says the boss to him.

The guy bobbed out again, and I got up out o' my chair.

"What's the matter?" inquires the boss.

"Guess I'll be going," says I.

"Set down!" says the boss in a voice as hard and cold as a coupling pin. "You're here for revenge and I'm going to see that you get it in just about half a minute."

I sat down again. He was a bigger man than me and my nerve had took a walk for fair.

Howsomever, when the yard gang filed in a minute later I acted without consulting my nerve at all. They were a baker's dozen o' about as husky a bunch o' dock wollopers as ever came down the pike, and when it flashed thru my mind what they'd do to me if I lingered there, I just took one deep breath and made a beautiful high dive thru the open window without the slightest reference as to where I was going to land.

Once outside I did a nice little aerial handspring and came down kerslap on my back on the sidewalk with force that knocked the wind clean out o' me.

"My! my! What is all this?" says a voice, and I opens my eyes to find a nice looking old gent in glad rags and a plug hat bending over me.

He helped me up and I had just started to explain, when here comes the yard gang, tearing around the corner like a bunch o' bulls after a gay cat. I was too knocked out to run, so I just shoved my hands down into my pockets and prepared to die my death.

Howsomever it was not to be, for just as the first o' the gang reached me, the old gent raises his hand with a commanding gesture and says:

"Stop!"

The gang stopped prompt and polite, and some o' 'em took off their caps.

"What does all this mean?" demands the old gent.

"Why, you see it's this way, Mr. Adams," answered one o' 'em, "this guy busts into the boss's office a while ago, looking for revenge, and the boss sent for us to deal it out to him."

"That's a lie," says I, getting my nerve back again. "I went in there to ask for a job, and the boss wouldn't give me a chance to explain."

The old gent glances up at the window that I'd come out of and sees Batterson standing there. They glare at each other for a minute in silence, just to let us know that they ain't on speaking terms, and then the old gent turns to the gang again.

"And does it take the whole o' you to do the revenging?" he inquires.

"Why, I dunno as to that," answers the gang's mouthpiece, looking cheap. "We were just following the boss's orders, Mr. Adams."

"Well," says the old man, "there ain't going to be no violence done while I'm on the premises. I'll take charge o' this man and look into the matter," and with that he grabs my arm and walks away.

"Now tell me all about it," says he, as soon as we were out o' earshot.

I gives him the whole song and dance without reservation.

"That's just like Batterson," he snorts, when I'd finished. "He's a scoundrel and oughter be served the same way. I wouldn't work for him for ten dollars a minute."

"I'll give you a job," he continues. "I own that paper mill over yonder, which is better and bigger than Batterson's ever will be. You come around right after dinner and I'll put you to work."

"Thank you, boss," says I, happy at last. "I'll be on hand sure."

And then we parted, him hiking for the mill and me for any old place that offered amusement until after dinner.

I hadn't gone three blocks, however, when I heard a noise behind me, and looking back, sees the yard gang coming on a run with fight in their eyes.

Naturally I didn't linger in the vicinity,

but just laid myself wide open and

wafted my feet down the street like a scared coyote running for home and mother.

Before I'd covered half a block I begun to see my finish. Some o' the gang were faster'n me and were gaining fast. I was figuring that I had just about a minute more to live, when suddenly I hears a "toot, toot," and here comes a freight train, pulling out across the road ahead o' me.

When I saw that John O'Brien I was one happy man once more and lit out for it like any other man would who had to catch a train. There was a couple o' shacks on top her watching the race and yelling advice, and I knew they'd very probably kick me off if I tried to make a ladder; so when I came up I just made a dive for the rods, and luckily landed square on them and a second later I was stretched out flat under the car, twiddling my fingers at the yard gang.

I was on a fast thru freight and we covered forty miles without even slackening up, and then stopped just long enough to take water. I held her down until the third stop and then dropped off, hiked for the jungles and flopped under a tree. I needed the rest.

I must a' pounded my ear harder than I intended, for when I woke it was quite dark and chilly, so I knew it must be late.

I got up and hiked for the depot to see what time it was. The window was open and I walked up and looked inside. Right there I got another real surprise.

In the waiting room, glaring with hate and scorn and brimstone at each other, stood that guy Batterson, and Mr. Adams!

This was interesting and I listened for particulars. Howsomever, if there'd been an argument it was all over now, for Mr. Adams turned and walked up to the ticket window.

"You say there won't be a train to Alanson before tomorrow morning?" he asks.

"That's about the size o' it," answers the agent.

Then he asks if there is any place where he can get a bite to eat and the agent directs him to an all night restaurant down the street. As soon as he's gone Batterson tackles the agent.

"Any chance to get a special," he inquires.

"You might if you've got the price."

"Well, I have, and an extra ten dollars for you, if you get her."

The agent turned away and in a minute I hears him working the ticker. After about twenty minutes he returns to the window.

"I got her," says he. "They will start from Grand Rapids right away and will be here in about an hour. They've got a clear track."

"You're all right," says Batterson, as he skinned a tenner off his roll and handed it over. "If I can beat that old coddger into Alanson it'll mean a big winning to me and a heavy loss to him, which'll serve the old crab just right."

"Oh, ho," thinks I; "he's trying to get the best o' my guerdene angel, hey? I guess it's up to me to find the old gent and put him wise."

So I hikes for the restaurant, but don't get half way there when I meet him coming back.

"How on earth did you get here?" says he, recognizing me right off.

I explained, and then went on and told him what I'd heard at the depot.

"That's bad," says he, shaking his head dubiously. "That's bad."

"Well," says I, "I don't know what it's all about, but if there is anything I can do for you, boss, just say the word."

"I can't see where you can be of any help," says he, mournful like. "You see, it's like this: there's a man, named Collins, who owns a tract o' a thousand acres o' the finest kind o' spruce timber, near Alanson, and there's been a lot o' paper mills trying to buy it up for pulp wood; but Collins is an eccentric sort o' man, and he has always refused to sell."

"However, today I received a letter from him, stating that he had decided to close out, and as Batterson and I had been the highest bidders, he'd sell to the one who was on the grounds first."

"I took the earliest train after receiving the letter, and found Batterson on board, also. We were both in such a hurry that we didn't have time to look up when we could make connections here, this town being a junction where we had to change trains, and when we arrived we found we couldn't get out before morning. This move o' Batterson, in getting a special, puts me out o' the running, I guess, and the old gent turned away looking pretty blue."

"Why don't you go thru on the other guy's special?" says I.

"Batterson's too foxy for that. He'd never let me ride."

"Why don't you ride her anyway? What do you care for Batterson?"

"But how on earth can I? Can't you understand that he owns that special?"

"That don't cut no ice. If you really want to get to Alanson, and you're game, I'll see that you ride her thru and the other guy won't even know it."

That sort o' attracted his attention, and he inquired into the details.

So I explained to him how I'd made a specialty o' traveling around the country for nigh on to twenty years, without paying carfare; as a matter o' fact, I'd covered something around half a million miles, to date, without bumping into much difficulties, to speak of, and reckoned I could engineer the job successfully.

"Well," says he, after he'd thot a spell, "I don't know anything about this kind o' business, but if there is any way to beat Batterson I'm willing to take the risks. So if you really think you can do it, I'll place myself in your hands and take the consequences."

"Now you're talking," says I. "It'll be as easy as bumming apple butter up in old Penn. Just leave it to me."

We sneaked back to the depot, roundabout, and sat down behind a pile o' ties, so's we'd be on the opposite side o' the train from Batterson, when she pulled in.

After about half an hour wait we heard the whistle o' the special, and I gave the old gent a whack on the back to keep his nerve up, and told him that here was where he took the ride o' his life.

She stops right in front o' the depot and we sneaks out to pipe things off. There was nothing but an engine and one car, an ordinary passenger coach, without a blind, so there was no use trying to hit the head end. The pilot was too risky, for if we were discovered and ditched the whole game would be off. I decided quick.

"It'll have to be the trucks," says I. "Be quick, now; she won't stop more'n a minute."

We ran to the side o' the coach. I could see Batterson thru the window, just setting down and knew we had precious little time. Dropping on my knees, I pulled the old gent down after me and leading him with one hand I crawled under the car and onto the forward trucks, yanking him up beside me just as the train started.

There ain't no more room than a minute between the car floor and the trucks, and what, with the axles rolling under you, the big wheels roaring, the brakes grinding and banging, the dust flying and the gravel hitting you in the face and eyes, it must a' been some bewildering to his nibs, and we hadn't more'n got started when he decided to get off.

It was a case o' blind fear. He was going to get out from under that car immediate, and to try it would a' meant instant death. So, o' course, I had to wrestle with him, and hold him down and yell at him to lay still and behave himself, expecting every minute that he'd flop me off and under the wheels. It was a good half hour before I got him calmed down, and then it was because he was so blamed exhausted that he couldn't wiggle no more.

It's a matter o' fifty miles to Alanson, and altho the engineer seemed to open her up for all she was worth, we were all o' an hour and a half getting there. But finally we pulled into the town and I yanked the old man out from under, more dead than alive, and hustled him around behind a section house.

And, say, he was a sight! His plug hat was gone; his face was so black from dust and cinders that you'd a' took him for a stoker; one pant leg was ripped from the knee down; his coat was tore 'most in two and he was altogether the dilapidated looking figure I ever did see.

"Now, the best thing you can do is to look up that man Collins, and get your business done before Batterson gets a crack at him," says I, as soon's I'd got him straightened around. "Do you know where he lives?"

"Yes. I've been up here several times to see him."

So we hustled for Collins' house and pounded him up. He was some surprised when he saw the condition the old man was in, but recognized him all right, and when Mr. Adams explained how it happened, he was tickled 'most to death. "You certainly deserve that tract o' timber after what you've been thru to get it," says he. "And you're going to have it, too."

Then they gets busy and draws up the papers. The old gent has me put my monikey down for witness and makes out a check for the full amount, on the spot.

Then Collins rousts out his woman and tells her to get breakfast.

"Wonder why Batterson don't get here," says the old gent, while we're waiting.

"Oh," says I, "he probably thinks he's got the thing cinched and that you're fifty miles away, and he's gone to the hotel to wait until Mr. Collins gets up, so's not to disturb his slumbers." And this turned out to be the case.

While we're eating, about half an hour later, there comes a knock at the door and in walks Batterson. Naturally he's considerable surprised when he sees us, and did more or less swearing when the old gent flashed the papers on him and told him what had happened.

"How the devil did you get here ahead of me, anyway?" he demanded.

Mr. Adams waved his hand at me.

"This gentleman, Mr. Toledo Slim, brot me thru on the same train you came on," says he. "Slim had a double purpose in view when he done it—to return the favor I'd give him and to get revenge on you for your cussed meanness," and with that the old gent smiled blandly at his rival-in-biz, who promptly bounced out the door, cussing like a mule skinner.

"And, now, Slim," says the old gent a little later, "I'm going to give you enough money to get back to my town and buy you a suit o' clothes, and then I'm going to put you to work at the best job I can find for you in the mill."

"Just gimme a plunk, boss, and forget the work," says I. "I'm all done reforming—it's too blame strenuous for my delicate constitution," and with that I bid him good-bye and made a run for the freight I hears switching in the yards.

SOME OF OUR WILD FLOWERS—4

BY EVA RYMAN-GAILLARD.

Indian-Pipe—Ghost Flower.—(*Monotropa uniflora*).

Among the oddest of our wild flowers is the ghostly looking Indian-pipe, sometimes called ghost flower because of the whiteness of the entire plant. In other localities it is called corpse plant because of the peculiarly clammy feeling of the plant when touched. The shape of the

streams or springs, the bush has, more than once, provided plates, drinking-cup (a folded leaf) fruit, and floral decorations for a wayside lunch while on a flower-hunting ramble.

Wild Daisy—Ox-eye Daisy.—(*Chrysanthemum leucanthemum vulgare*).

This plant is a native of Great Britain, that was brot over by the colonists and,

probably, in the floral world prides itself on having come over in the Mayflower. In its native haunts the Englishman calls the flower "moon daisy," or simply "ox-eye," while the Scotchman calls it "dog daisy." What some of the United-statesmen call it is too emphatic for publication but the botanical name should be a help to those who have conscientious scruples against "swear-words" yet feel that something must be said.

Everyone, nearly, recognizes the ox-eye daisy at first glance but unless the plant and its root (as well as the blossom) is examined it is hard to understand how it takes such complete possession of the soil. When the foliage is examined one quickly sees how the rosettes forming close to the soil shade and crowd other growths out of existence. Then, the root-stock, reaching

in every direction, is cut by every effort to cultivate the soil and the more pieces into which it is cut the more plants one has. Add to these characteristics the free-seeding character of the plant, and one gets an idea of why farmers not infrequently abandon fields that become infested with it.

It is claimed that the daisy was unknown south of Mason and Dixon's line until carried there in hay for the horses during the Civil War, while now the line of the "march to the sea" may be traced by the daisies along the way. Be this as it may, the fact remains that Tennessee has made it her state flower, showing that she appreciates the beauty of the

flower whether or not she will enjoy it as a weed.

Partridge Vine—Checkerberry.—(*Mitchella repens*).

Almost unconsciously, we find ourselves looking for the red berries of the partridge-vine as soon as we enter the open woods, whatever the season may be, but it is during June and July that we

flowers, for they hang on from one season to another if the birds happen to miss them.

The globe trotter wandering in Mexico or Japan may find a delightful reminder of home in this same little checkerberry, as it is found in both countries.

Lupine.—(*Lupinus*).

The name of this plant comes from lupus, meaning a wolf, and was given because the plant robs the soil as a wolf does a sheep-fold, and, so far as the writer can learn, the brand of the thief sticks to it, for no nickname has ever been given it.

One glance at the pea-like blossoms will show their relationship and we recognize them as members of the pulse family, though the hairy leaves, palmately divided into from seven to eleven finger-like leaflets, are very unlike the foliage of peas, locusts, and other members of the family.

There are both annual and perennial varieties and blue, pink, yellow, or white flowering sorts scattered from Maine to California, and the long, terminal racemes of bloom are known to most woodland rambles, but the beauty of the flower has caused it to be largely brot under cultivation so that dealers might profit thereby, and as a consequence many people know it as a garden flower.

Jamestown Weed—Devil's Trumpet.—(*Datura Stramonium*).

All thru the summer, over a wide range of territory the great white, trumpet-shaped blooms of this plant may be found



White Daisy and the Improved Type "Shasta."

blossom makes the origin of the name Indian-pipe evident as it resembles a clay pipe, with bowl turned downward, very closely.

While the range of the plant is wide it is found only where there is a deep bed of decaying vegetable matter for it is parasitic and draws its nourishment from decaying wood—the crumbling roots of old stumps being especially suited to its needs.

The white, wax-like stalks that spring from a matted mass of roots produce colorless bracts instead of leaves, giving us a plant that is white in every part, owing to the absence of chlorophyll grains which give the green coloring to other plants.

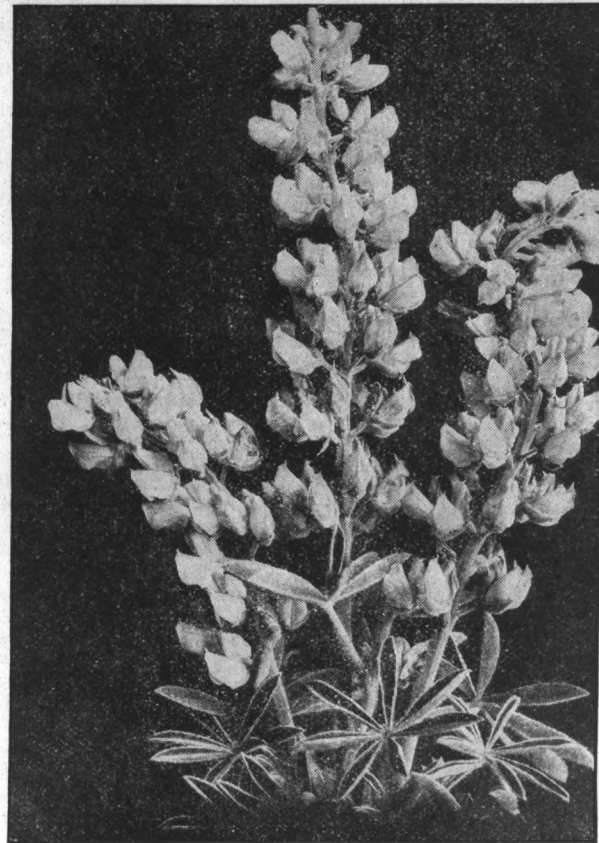
Remarkably odd and pleasing in appearance as the plant is, it is unsatisfactory in that it turns black almost as soon as touched, making it almost impossible to carry one home.

Purple-Flowering Raspberry.—(*Rubus odoratus*).

The blossoms of this raspberry bush are among the most striking flowers of the season and arouse the curiosity of those unacquainted with it. The bushes are tall and slender, while the flowers would be taken for wild roses, except for their purplish color, if the large, grape-like leaves were unseen. The fruit, however, proclaims the fact that it is a raspberry as soon as seen.

The writer has, many and many a time, seen the steep banks skirting Lake Erie literally clothed with the bushes, flaunting the rose-like blooms and, on closer inspection, found plenty of berries among them.

Common in upland places, and near Wild Datura, or Jamestown-Weed, whose Seeds, Leaves and Stems are Poisonous.



Wild Lupine—A Relative of the Pea, Locust, etc.

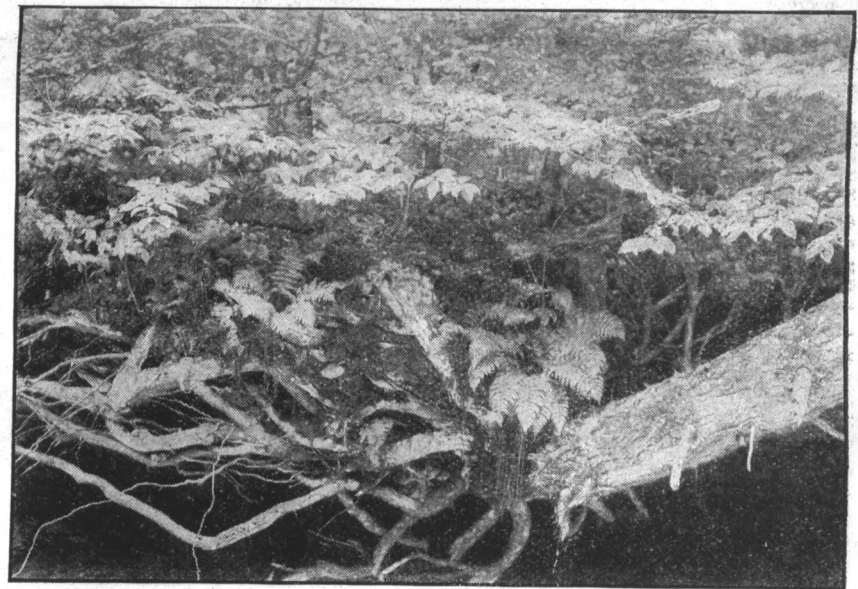
find the little white, twin flowers (always in pairs with the ovaries united). They are such modest little flowers that few ever notice them, yet they have a dainty beauty and a distinctive fragrance.

The trailing, evergreen vine, creeping close to the ground and rooting at every

thereby, and as a consequence many people know it as a garden flower.

Jamestown Weed—Devil's Trumpet.—(*Datura Stramonium*).

All thru the summer, over a wide range of territory the great white, trumpet-shaped blooms of this plant may be found



Such a spot as Ferns love, and where they Grow Luxuriantly.

ent, nearly, has shining, rounded, waxen leaves with white veining that marks them unmistakably.

The berries are pulpy and insipid, yet a woodland jaunt would not be perfect if we did not get a taste of them, and we may find them (a year old) among the

widely opened during the evening and early-morning hours but drooping, half closed, during the day.

The plant is a coarse-growing weed that delights in the neighborhood of rotting rubbish-piles and wood-yards, or other places of the kind, being anything but aristocratic in its choice of locations.

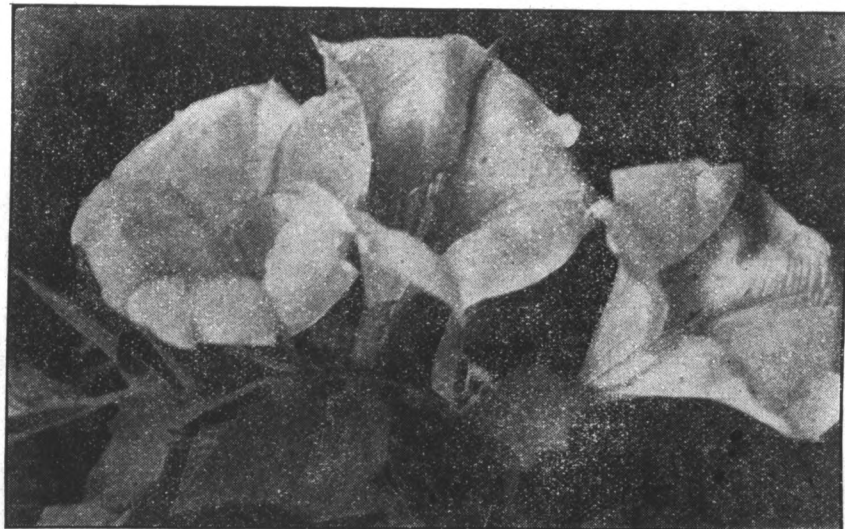
The flowers grow larger and finer under cultivation, while the plant grows less rank and coarse. Easily grown from seed, and about as hard to get rid of as the daisy, the plants may be had in masses that make a glorious showing at hours when other flowers are closed, or owing to their color hardly visible in the 'im light, but all who handle the plant (wild or cultivated) should know that its seeds, leaves, and stems contain a deadly (narcotic) poison, and act accordingly.

The dried leaves were, formerly, smoked as a relief from asthma, but they are dangerous to have in the home. The Indians, for some reason, repudiated the plant by calling it the white-man's-plant, probably because it was usually found following in the path of civilization.

Beautiful, but dangerous, tells the story.

Yellow Lady's Slipper—Whip-Poor-Will's Shoe.—(*Cypripedium hirsutum*).

This flower, as well as others of the



class, belongs to the aristocratic orchid family and may be found, during June, in such moist places as furnished the trillium a little earlier.

Some botanists call this variety *C. pubescens*, and a smaller, fragrant, yellow sort *C. parviflorum*, but our common name comes from two Greek words meaning Venus' buskin.

In connection with this we must consider the

Pink Lady's-Slipper—Moccasin Flower.—
(*Cypripedium acaule*)

which is larger than the yellow sorts and blooms somewhat later, but is less frequently found owing to the fact that it follows more closely the parasitic habit of growth and plants its roots in beds of decaying vegetable matter, on or near decaying logs and roots, but always in well drained situations. Deep beds of forest leaves that have rotted until they are practically a solid bed of vegetable matter gives another like place for their discovery.

When either of the three varieties mentioned, or the larger and rarer *C. spectabile*, is found, swaying a pouch-like flower well above the foliage, no hard-to-understand botanical description is needed to inform the most ignorant flower-hunter that he has one of the treasures of flower-land in his possession. The pouch-like part of the flower is so remarkable that few note the difference of style in the toes of a "slipper" and a "moccasin," or the difference in tie-strings hanging from the top, yet the difference is worth studying and will make the flowers seem even more remarkable.

It is impossible to get the full measure of enjoyment from these flowers unless we know the bits of flower-lore concerning them. The story of the pink "moccasin," which is especially interesting, runs as follows: A beautiful Indian maiden, who always wore pink moccasins, and never revealed the secret of her dye, was loved by a young brave who wanted to marry her. An old chief, who had more ponies and blankets, was favored by the foster-mother. The young brave was sent on a mission and then, with the help of the mother, the maiden was kidnapped by the old chief and carried far away. She wept as she was going until a spirit of the wood appeared and told her to set her foot near the roots of the trees as she went along, and trust the Good Father for the rest.

After that, wherever she put her foot close to a tree, a little pink flower sprang up, and when the young brave returned and began a search for the maiden the same spirit told him to follow these flowers. He did so, and rescued the maiden. Then the old chief started in pursuit, but the wood spirits decoyed him into a swamp where he and his pony sank out of sight, except the pony's tail, and over the spot there sprang up a species of horse-tail grass.

Ferns.—(Of all sorts).

Some may say that ferns are not flowers and, in the common understanding of the term, that is true, but they belong to the floral world, strictly speaking, and

find the rolled fronds peeping thru the soil and if taken up then (with plenty of soil from around them for potting purposes), they will thrive in a shaded room and give to it that indescribably cool look, with the woodsy odor, that is so delightful on a hot day. In mid-summer the ferns may be transplanted, or in fall (for next season), and the ways and places in which they will lend decorative effects could never be named.

The sorts that grow in deep swamps are the easiest of all to handle for they may be easily pulled from the mud and need no "potting" beyond dropping into a dish that will hold water and then keeping the water a few inches deep around the roots.

Ferns know neither times nor seasons, for we find the dark leather-like leaves of the Christmas ferns, under the snow, as perfect and as beautiful as the airiest of summer varieties but, perhaps, they are at their very best at this season—and that is our justification for placing them with the flowers of June and July

THE EARLY AMERICAN AUTHORS.

BY CARL S. LOWDEN.

James Russell Lowell.

Lowell, poet, critic, and versatile scholar, was born February 22, 1819, in Cambridge, Mass. He attended assiduously the public schools, and after completing the required course there, he entered Harvard College, from which he graduated in 1838. Between that date and 1841 three degrees were conferred upon him, viz: Bachelor of Laws, of Arts, and Master of Arts. On quitting Harvard, he took up law, practicing in Boston, but as a number of his famous predecessors had done, he devoted almost all his time to literature and forgot his law. After publishing a few poems in the magazines, he issued a volume in 1841; and two years following this event he originated "The Pioneer," a periodical which soon died. Three years later he married Miss Maria White, to whom he was passionately devoted. Then, having become an ardent abolitionist, he, in 1846, gave the world the first of his famous "Biglow Papers." Soon, a great sadness came over him; for while sojourning in Europe to restore the health of his dear wife, she died. Lowell remained abroad until his alma mater called him to occupy a chair, vacated by Longfellow. Afterwards he became editor of "The Atlantic Monthly," and still later of "The North American Review." Prominent as a lecturer and author, and a force in politics, he died in his old home town, Cambridge, August 12, 1891.

Lowell was a prolific writer. "The Vision of Sir Launfal," which critics generally concede to be the most worthy of his poems, was published in 1845; and the "Biglow Papers," in 1848. Lowell possessed an unusual degree of kindness and feeling. He was broad; altho his writings all bear the imprint of genius, it is impossible to think how much better his work might have been if he had centered his activities. Still, this can be

So the heart's wave
In thy dim cave,
Hushes, Forgetfulness!

Duty and care fade far away,
What toil may be we cannot guess;
As a ship anchored in the bay,
As a cloud at summer-noon astray,
As water-blooms in a breezeless day,
So, 'neath thine eyes,
The full heart lies,
And dreams, Forgetfulness!

The following lines, which are taken from the prelude to "The Vision of Sir Launfal," show very clearly the poet's kinship to nature:

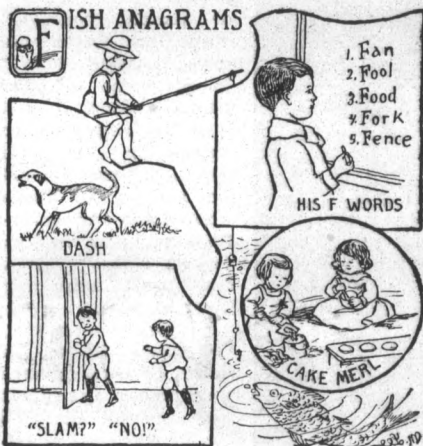
"And what is so rare as a day in June?
Then, if ever, come perfect days;
Then heaven tries earth if it be in tune,
And over it softly her warm ear lays:
Whether we look or whether we listen,
We hear life murmur, and see it glisten;
Every clod feels a stir of might,
An instinct within it that reaches and

towers,
And, grasping blindly above it for light,
Climbs to a soul in grass and flowers;
The flush of life may well be seen
Thrilling back over hills and valleys;
The cowslip startles in meadows green,
The buttercup catches the sun in its chalice,
And there's never a leaf or a blade too mean

To be some happy creature's palace;
The little bird sits at his door in the sun
Attil like a blossom among the leaves
And lets his illumined being o'er-run
With the deluge of summer it receives;
His mate feels the eggs beneath her wings,
And the heart in her dumb breast flutters and sings;
He sings to the wide world, and she to her nest,—
In the nice ear of nature which song is the best?"

KINKS.

Kink I.—Fish Anagrams.



Find the four kinds of fish represented by the above anagrams.

Kink II.—Disguised Presidents.

The letters in each sentence below, when transposed, will spell the name of a president of the United States:

1. A fat ram will hit Dow.
2. Ho! Jam Nancy's quid!
3. Sly misses rant on pugs.
4. Farry heard the bird chorus.

Kink III.—Advertisers' Transpositions.

Make a set of 10 sentences, each sentence from the letters of the name of any firm advertising in this issue, using each letter no more times than it occurs in the name of the firm. "Disguised Presidents" in Kink II afford examples of how to do it.

Prizes for Straightening Kinks.

To the person sending the best set of 10 sentences in answer to Kink III, in addition to correct solutions to Kinks I and II, we will award a pretty denatured alcohol lamp. To the first 10 successful solvers sending next best sets of sentences we will give choice of a package of 50 post-cards representing a trip around the world, a copy of "Concrete Construction on the Farm," or a good paring knife. Where contestant or some member of his family is not a regular subscriber a year's subscription (75c) must accompany answers. Answers must not reach us later than July 9, as correct solutions will be published in issue of July 17. Address answers to Puzzle Dept., Michigan Farmer.

Answers to May 15 Kinks.

Kink I. Hidden Picture.—1, 2, 3, 4, 5, 6 are the bears; 7, the panther, also the Goddess of Liberty, (the panther's tail forms the arm of the Goddess); 8 is the deer; 9, the woman's face; 10, Theodore Roosevelt.

Kink II. Conundrums.—I, the greatest surgical operation is Lansing, Michigan. 2, the greatest engineering feat is Wheeling, West Virginia. 3, Chicago is ill because it has never been in Wash., or because it is Chicago, Illinois, (ill o' noise), or because it always has ill in it—any of these three answers is allowed.

Kink III. Storm Puzzle.—The two exhibitions of nature's forces were lightning and tornado.

Awards for May 15.

But one set of entirely correct answers to Kinks of May 15 having been received, the only prize awarded goes to their sender—Mr. Hollis E. Nelson.

Want to be strong?

Eat more Quaker Oats. Eat it for breakfast every day. This advice is coming from all sides as a result of recent experiments on foods to determine which are the best for strength and endurance. It has been proved that eaters of Quaker Oats and such cereals are far superior in strength and endurance to those who rely upon the usual diet of heavy, greasy foods.

When all is said and done on the cereal food question, the fact remains that for economy and for results in health and strength, Quaker Oats stands first of all. It is the most popular food in the world among the foods sold in packages.

All grocers carry Quaker Oats. It sells at 10c for the regular size package, 25c for the large size family package and 30c for the family package containing a fine piece of china.

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We Supply the U. S. Government.
Prices Cut in Half this season. Our large new 104-page Band instrument catalog sent FREE. Write to-day.
THE RUDOLPH WURLITZER CO.
107 E. 4th St. Cincinnati, or,
277 Wabash Ave. Chicago, Ill.

FARMS AND FARM LANDS FOR SALE OR EXCHANGE

FOR SALE—172-acre farm, five miles from Ann Arbor, Mich. Write W. V. SMITH, Flint, Mich.

WANTED—500 families to settle on farm lands in Shawano Co., Wis. Employment furnished purchasers. It will pay you to investigate. J. C. VEDUM, Mattoon, Wis.

WE SELL LAND and require no payment except interest and taxes until end of third year. FLINT LAND COMPANY, Limited, Flint, Mich.

CALIFORNIA Oranges, olives, deciduous fruits, alfalfa. Sacramento Valley; pay \$50 to \$1000 per acre. Several choice bargains. F. L. SOUTHWICK, Room 801, Union Trust Bldg., San Francisco.

THRIFTY FARMERS are invited to settle in the State of Maryland, where they will find a delightful and healthful climate, first-class markets for their products and plenty of land at reasonable prices. Maps and descriptive pamphlets will be sent free upon application to STATE BOARD OF IMMIGRATION, Baltimore, Md.

WHY PAY RENT when you can buy the Best Land in Michigan at from \$5 to \$10 an acre near Saginaw and Bay City. Write for map and particulars. Clear title and easy terms. STAFFORD BROS., (owners) 15 Merrill bldg., Saginaw, W. S., Mich.

FOR SALE—High grade farm lands in Oscoda County. Near Tustin, Michigan. These were hardwood lands and no pine stumps on the land. Soil is gravel and rich clay. Well settled country with schools and good roads. H. W. MARSH, Manistee, Mich.

FARM FOR SALE AT AUCTION—July 10, 75 acres, 30 balance pasture. New house, newly fenced, best soil, near Windsor, Essex County. For full particulars address CHARLES F. COLE, Windsor, Ontario.

SOUTH-EASTERN KANSAS Farms and Truck Gardens, near city of 20,000, good market, largest railroad shops west of Mississippi river, fine climate. Money to loan, mortgages bought and sold. Particulars, Circulars, Price. Write MUTUAL REALTY, 1931 Main St., Parsons, Kan.

Money Counts

and farmers in Tidewater Virginia and Carolina are counting money made from large crops this season. You can do likewise. Ideal climate; three crops a year; best corn, hay, potato and truck lands, near fine markets, at low prices and on easy terms. Why not share this prosperity? F. L. MERRITT, Land and Indust' Agt., Norfolk and Southern Railway, 20 Citizens Bank Building, Norfolk, Va.

Michigan Lands

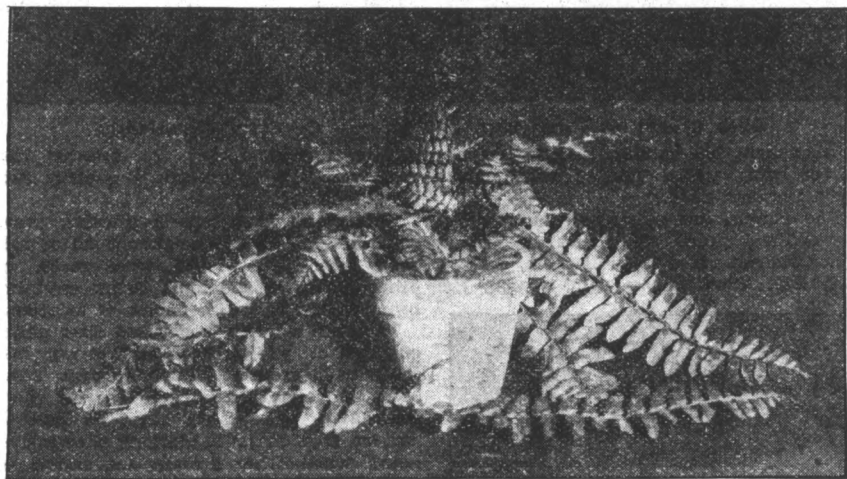
SEND for my free 32-page illustrated booklet and map of the Dempsey Lands in Mason and Lake Counties, Michigan; unexcelled for general farming and sheep and cattle raising. Best land at lowest prices in Michigan. Easy terms.

J. E. MERRITT, Manistee, Mich.

MICHIGAN FARM LAND

FOR SALE—Several fine 40 and 160-acre farms located from 5 to 7 miles west of Pellston, 12 to 14 miles north of Harbor Springs and Petoskey, two very popular summer resorts on Lake Michigan, Emmet County, Mich. The land is gently rolling soil, dark sandy loam on clay subsoil. Some of the farms have houses and barns, wells, springs, and fenced with Page's wire fence. Some are entirely cleared; others have a few stumps, while others have just been cut over. Timothy, alfalfa, alsike, peas, clover, apples, garden truck, etc., grow here in abundance. Crops pay for the land the first year. All are good farms and reasonably priced \$10 per acre. Terms to suit. Will consider exchange of any city property. A card to us will give full particulars.

COBE & McKINNON,
100 Washington Street, Chicago, Ill.



Fern in Pot was Pulled from Face of a Rock Ten Years Ago.

their graceful beauty entitles them to as much attention as would be given the most gorgeous flower.

Some varieties grow at the very edge of the shaded places while others are found in the deepest shade; some grow in the leaf-mould that gathers under trees and beside old stumps; some grow on the face of rock so barren that one wonders what they live on, and others thrive in the waters of deep swamps, but wherever they grow, and whatever their shape or size, they are always a delight to the eye.

On the earliest woodland rambles we

said of him: that few authors have ever excelled in as many diversified lines as he—and excelled so phenomenally, too.

Forgetfulness.

There's a haven of sure rest
From the loud world's bewildering stress;
As a bird dreaming on her nest,
As dew hid in a rose's breast,
As Hesper in the glowing west;
So the heart sleeps
In thy calm deeps,
Serene Forgetfulness!

No sorrow in that place may be,
The noise of life grows less and less;
As moss far down within the sea,
As, in white lily caves, a bee,
As life in a hazy reverie;

OF INTEREST TO WOMEN

HOME CHATS WITH FARMERS' WIVES.

The Summer Meat Supply.

Years ago more dependence was placed on the pork barrel for the meat supply than at the present time. No well-regulated farmer's family was ever without this standard article of diet and even to this day good country-packed salt pork has the best similar product of the meat market beaten to a finish.

Yet, salt pork as a steady diet is not desirable and we find the cook who has many mouths to fill varying her menus as far as possible. Store rooms are stocked with home-cured hams and bacon, sausage and beef. The poultry yard contains the material for chicken dinners and the meat wagon calls at stated intervals. With so broad and extensive a base of supplies the problem is simplified, yet even then it is no small matter to provide three meals a day for hearty appetites and avoid repetition when meat is expected to be on the bill-of-fare at least twice out of the three times.

As meat-eaters, Americans surpass all other nations. Whether or not this is a good thing for us physically and otherwise, is a matter of discussion among dieticians of the present day.

Salt pork properly cooked is a dish not to be despised. For frying the fattest pieces should be chosen. Slice thinly and evenly with a sharp knife and lay in cold water or sweet milk to freshen. This process may be hastened by slowly heating the fluid but it must not boil else the slices will curl and then they will not fry evenly. Drain, and roll each piece in flour, then place them in a hot spider over a rather moderate fire until a nice brown on the under side. Turn and brown the other side, promptly removing to a warm platter as soon as this is accomplished. It is a mistake to serve fried salt pork swimming in fat. Not a particle of grease should be left on it.

After removing the pork drain from the spider, nearly all the fat and save it for frying potatoes or other similar purposes. Into the remainder stir a spoonful of flour and allow it to brown slightly, then pour in sufficient rich milk for gravy and stir constantly over the fire until it thickens. This makes a delicious gravy, but it must be smooth and free from lumps. The amateur in cooking may need to pass it thru a strainer to secure this condition but the experienced know how it is done without.

Salt pork with beans is another good dish and we of Michigan ought to remember that here grows the very best material for making it, for our beans are sought by manufacturers of food products containing them, as being of the highest quality.

For this purpose an entirely different piece of pork will be best suited and we search out from the barrel that containing the "streak of fat and streak of lean." We soak the beans over night and put them on to cook in plenty of fresh water next morning. For this preliminary boiling many cooks recommend placing a small quantity of baking soda in the water. Let boil until the outer skins begin to break then drain and cover with more water but without any soda. This boiling for a short time in soda water hastens the cooking process and also makes the beans more delicate in flavor.

Beans should have long, slow cooking and if there is to be a fire in the range all the forenoon they will be at their best if placed with the pork in the oven and baked until dinner time. Some like a trifle of molasses, others a dash of mustard in their beans. Plenty of water must be kept on them until near the last when they may be allowed to dry out somewhat and brown nicely on top. They should come to the table soft and tender yet whole, or comparatively so.

Pork and beans is a dish which is as good cold as hot and the last of it may be made the basis of a nice soup. Plain bean soup is good, but a variety is afforded by adding a cup of sweet cream, or a like quantity of stewed and strained tomato, with a dash of red pepper.

But the country matron may, if she chooses, have in her cellar or refrigerator a supply of canned meat to set upon her table and that without buying it. In winter when a beef is killed portions may be prepared for summer use by

placing pieces of suitable size in thoroughly sterilized glass jars and cooking in a boiler of water set over the fire. No water is put in the cans, just the meat alone which should be packed as firmly as possible, and contain considerable fat so that when finished a thick cake of the latter will be at the top. This assists in the process of preservation. The meat is not cooked before putting it in the cans and must be seasoned with salt and pepper as it is put in. Some meat that I have canned has been made too salty. I have found that a teaspoonful of salt to a quart jar is about right. It will require fully three hours steady boiling to cook the meat in quart cans sufficiently. Have both rubbers and covers in position. The cans must not be opened, but the covers should be tightened when removed from the boiler.

I would advise a beginner to go slowly and not attempt more than a few cans at first as it is disappointing to have a failure and we learn by experience. It ought to be added that meat without bones keeps more perfectly, when canned in this manner.

In summer fresh meat is frequently supplied by slaughtering a sheep or a calf. Unless better refrigeration than the average farm affords is at hand one family can hardly consume this before it spoils. Neighbors may divide the quarters among them or the meat may be put up as above recommended.

A quarter of mutton or of veal will keep for a week if immersed in butter-milk, changing when the juices of the meat begin to color it, for that fresh from the churn.

It sometimes happens, particularly on a dairy farm, that one has calves which



Corner of Lunch Cloth in Wallachian Embroidery.

it is a question what to do with. If of the dairy breeds they do not pay for vealing at the age of four weeks and rarely is there a butcher who wants dairy calves as vealers, anyway. Yet these will make first-class baby beef if fed on skim-milk, hay and grain for a few months. I know this is true for we have tried it repeatedly. The meat is delicious, being, strictly speaking, neither veal nor beef. It is tender and juicy, yet the color is not so light as that of the true veal calf. The cost of production is hardly noticed. By canning a portion of it and resorting to the various methods of preserving the remainder, not a particle of it need be wasted. Fresh meat does not require to keep very long in a family such as the majority of farmers have at this season, where the amount consumed at one meal would satisfy the city housewife's needs for two or three, or even more, and we all realize how meat bills mount these days when prices on the cheaper cuts are exceeding what we formerly paid for the more expensive ones.

Speaking of different cuts of meat leads up to the question of whether it is really more economical in the end to purchase those which require long cooking even tho they cost less money. It all depends on the fuel employed. If cooked in a fireless arrangement or over a wood fire made of old rails such as many are just now utilizing as fuel for the kitchen range, the cheaper meats are certainly cheaper and are always equally nourishing. If, however, the fuel is expensive it will be easy in a long period of cooking to consume a sufficiently extra amount to make up the difference between that and a steak which requires merely to be seared in a hot spider or broiled for a few minutes.

Mention was made above to the method of cooking without fire. Comparatively

few people know how well this can be done and how little trouble and expense are involved. A home-made contrivance answers every purpose of the boughten cookers. Any box or large pail packed inside with newspapers, leaving a space in the center for the smaller compartment which is to hold the food, will cook meat, vegetables or fruit without any fire whatever beyond that needed to bring it to the boiling point before it is placed in the cooker. When I say this I do not mean exactly that in case of cooking meat because some boiling is necessary, say from 15 minutes to half an hour, the latter for extremely tough fibre or large pieces. It may sometimes be necessary in the latter case to remove from the cooker after a couple of hours and bring again to a boil. A little experience will teach the operator how to best handle the different articles. One should be sure to allow sufficient time. Ten to twenty minutes over a fire and four hours in the cooker ought to make tender the ordinary stew. Two hours before dinner open and re-heat, with potatoes added. If not too large these will be tender at noon.

Of course, where a fire is kept up most of the forenoon with the ordinary cook-stove this arrangement would not mean any particular saving of heat or of fuel, but with coal-oil or gasoline it amounts to a considerable saving, as every burner counts for itself in the cost.

To those who are willing to try for themselves what can be done, I advise making one of these cookers. A big wooden candy pail packed round and round the inside with smooth layers of paper, with a generous pad of same in the bottom is the way to start it. Then place a two-quart granite pail, or larger size, with tight-fitting cover in the center and pack tightly around it with the layers of paper. This forms a nest in which the small pail rests and the latter can be removed at pleasure. Make a thick round pad of paper for the top and over this a heavy cushion or anything to protect it from exposure to the air. Start the food to cooking in this pail and then, without removing the cover, plunge it immediately into the nest and clap on the paper pad and the outer covering. The retained heat will accomplish wonders.

As a hot weather cooking apparatus this arrangement cannot be excelled.

EMBROIDERY FOR LUNCH CLOTH, OR PILLOW.

BY IDA NEWLAND COLE.

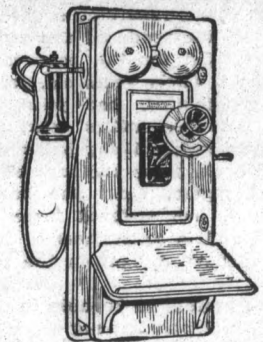
The corner design for lunch cloth, or pillow in Wallachian embroidery may be worked on linen or any art cloth preferred. This takes mercerised embroidery cotton No. 4 or E. (some makes are graded by figures while others use letters).

The heavy stems look much better for this work than when marked with the stem stitch. To prepare the stem for working, small stitches are run the length of the stem and back again. These are then covered with tiny over and over stitches worked across the stem. In working the eyelets the outline is first followed by the running stitches, the hole is made with the stiletto the size of the inner circle; then cover the outlining threads with a button-hole stitch, making the edge of the stitch or ridge along the outer and not the inner circle. This is done by putting the needle in just outside the outer circle and out at the eyelet-hole, of course, putting the thread over the needle as in working button holes.

The flowers and leaves are first well padded by filling in with the running stitches lengthwise of the leaves, being careful to run a thread each side of the middle and not one thru the middle, as that is the division, or where the middle vein comes in the leaf. Now they are worked precisely like the eyelets, with these exceptions, the needle is brot out in a line up the middle of the leaf, instead of at a center hole, and the stitches should be slanted down, or toward the stem end of the leaf, at the center, and not straight across from the outer edge to the center. The inner stitches of points where the needle comes out are closer together than the outer, or points where the needle goes in. This is because the outer edge of the leaf is a greater distance around than the center. After working one-half of the leaf we must be careful in working down the other side not to put the needle thru the ends of the threads at the center line, but to make the stitches as close to them as possible, this makes an even looking line or vein thru the center of the leaf.

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Free Bulletin No. 76

on
How to Build a
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Put Up Your Own Lightning Rods and save half the cost. We sell Direct to You—a System Complete, ready to put on your buildings, with full instructions for installing. Shipped on Approval; return if not satisfied. Let us send you our Proposition and Free Catalog—ask for them today.

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A HEALTH PROBLEM.

BY CHARLOTTE A. AIKENS.

From the northern part of Michigan an inquiry comes regarding a chronic ailment which has rendered the writer almost an invalid for the past couple of years. She is thirty years old, pale, thin, anemic, constipated, has piles, is excessively nervous, suffers from palpitation of the heart, shifting pains thru the chest and back, pains and soreness in the abdominal region, etc. She has never been robust, has suffered more or less for years, and is so nervous of late that she has to have a light in the room all night.

I do not profess to be able to diagnose diseased conditions but my experience in hospitals led me to suspect, from her description, that the very bottom of the trouble in this case is likely to be a displacement of some of the organs in the abdominal or pelvic region. The nervous condition is probably due in part, at least, to this displacement, and it is not likely to be corrected till the organs are placed in their proper position. I may be mistaken in my suspicion but there is enough trouble in the abdominal and pelvic region to make an examination extremely advisable. She asks if it would be necessary to have some lady accompany her to a doctor's office for such examination. Not really necessary, but desirable, if it can be conveniently arranged for. It is quite likely that some kind of surgical operation will be necessary before such a condition can be permanently corrected. To the woman who lives far from cities and hospitals this may seem like a very dangerous kind of remedy. It is not so in reality. The risk in such an operation is comparatively small. I do not remember any death occurring following an operation for displacement. Such a remedy is never desirable, but it is the quickest, surest, in fact, the only remedy in a great variety of conditions. Medicine will not correct a displacement any more than it will straighten a crooked finger or a crooked foot. I have known women to suffer for years from a tear or laceration following childbirth, taking medicine constantly, trying electric treatments, and all other remedies suggested, but the one and only remedy that would do any good—the sewing up of the torn tissues. Medicine nor electricity will no more sew up a tear in the internal or external portions of the body than it will sew up a tear in the clothing. The parts have to be brot together, properly fitted, and put in a condition to grow together.

In the case under consideration I would suggest that this woman write to the superintendent of the nearest hospital—possibly the General Hospital at Saginaw would be nearest. Tell the superintendent as fully and briefly as possible about the trouble in the abdominal and pelvic regions, mentioning the excessive nervousness, palpitation of the heart, constipation, piles, etc. If there is a hospital nearer home write to that hospital. Another hospital I would suggest sending a letter of inquiry to is the University Hospital at Ann Arbor, Michigan. Begin saving money for the trip and the treatment. It may be that some weeks, or even a few months of waiting will be necessary. While waiting a good deal may be done to improve the general health. Epsom salts is not a good cathartic to use in case of constipation. It drains off the body fluids and aggravates the condition it is used to cure. Try taking a cup of hot water on rising in the morning and again a half hour before meals. Drink plenty of buttermilk, a quart, or even two quarts a day is not too much. Use plenty of fruits and coarse foods and vegetables. Chew all your food very thoroly. Leave off drinking tea and coffee. For the sleeplessness and nervousness at night, try sponging the body with hot salt water before bedtime, using about a tablespoonful of salt to a gallon of water, and follow with a brisk rub with a coarse towel. An hour's walk in the open air, before bedtime is a pretty good cure for sleeplessness. Put out the light before retiring. Be out of doors and in the sunshine every minute that you can. Take long, deep breaths whenever you can. All this will help to build up the general health.

The pains in the side and chest and head are probably due to weak, exhausted nerves. These will gradually leave after the irritation and pressure in the abdominal region is relieved. The palpitation of the heart is one of the commonest symptoms in "nervous prostration." It is usually worse at night. It does not

mean that the heart is diseased. It probably isn't. The nerves reach every part of the body and when the nervous system is weakened or diseased, any organ in the body is liable to be affected thru the nerves. As the nervous system grows stronger the trouble from palpitation will disappear.

A surgical operation such as I have mentioned, will probably detain you in the hospital from two to three weeks. When you write to the superintendent inquire the charge for a bed in the ward, also in a private room. If you are not well able to bear the expense, ask regarding the free beds. There are usually some free beds in every public general hospital. They will likely require a physician's statement regarding the nature of the disease from which you are suffering if you apply for admission. That you will have to get from a local physician.

If you go to the hospital, do not take many things in the way of wearing apparel with you. They will only be in the way. Most hospitals supply night gowns, tho it might be wise to include a couple in your outfit. All you will need will be the dress or suit you wear to travel in, a couple of shirts, a kimono or loose wrapper, handkerchiefs, a pair of soft slippers, your comb and tooth brush. Some letter paper, envelopes and stamps or post cards ought also to be provided.

From your description there is nothing to lead me to believe the condition is not curable. A few weeks of hospital treatment would probably make a new woman of you. Thousands of cases similar to yours are helped back to health every year.

E. B. R. writes asking what to do for piles. It depends on how serious the trouble is. There are all degrees of piles, some external, some internal. In many cases the trouble subsides after rest in bed for a day or two, a mild purgative and some simple ointment applied. Cloths wrung out of hot water and applied at frequent intervals will usually relieve the severe pain. Sometimes a clot forms underneath the skin and causes violent pain which is quickly and surely treated in many cases by splitting the pile and removing the clot.

The trouble is very frequently due to constipation, which can be corrected by proper diet. The bowels should be kept regular.

In bad cases of piles the only sure remedy is to remove them. I have known patients, many of them, who have suffered tortures for years, tried all kinds of salves and washes, had local treatments that were excruciatingly painful, until they were worn out with suffering. By that time they were willing to submit to the only remedy for bad cases that gives satisfactory results—the removal of the piles. The relief was so great and the operation so trifling that they wondered afterward how they could have been so foolish as to suffer so long and refuse the only cure. A slight operation of this kind can be done at home.

ON COLORING A HAT.

In the May 29th issue of the Michigan Farmer, Mrs. R. D. wishes to learn how to color a white straw hat black. We have had most excellent results with the black shoe polish. Get the best you can find on the market. Take your hat, rip off all trimming, lining, etc., pick off all threads then give it a thoro brushing inside and out. Have a new paint brush and, after wiping off your hat with a dry cloth, go over carefully inside and out with the black polish. Let this get thoroly dry before applying the second coat, which is all that is generally needed, the amount, however, depends on the polish, but a third coat will do the hat good. If you wish under side of the brim white be careful and not let the polish run so as to show thru. I have used artists' tubes of ivory black paint, thinning to proper consistency with turpentine. One has to be more careful with it. I prefer the shoe polish.

Ionia Co.

M. E. H. C.

HOW TO MAKE A UNIQUE FLAT IRON CLEANER AND WAXER.

BY S. I. PARKER.

At this time of the year women and children are wearing a great deal of fancy wash goods which requires an undue amount of particular ironing, and in order to do nice work, the flat iron must be clear from rust and dirt, and be well waxed. Below I will give you complete description how to make a neat little flat iron cleaner and waxer which will

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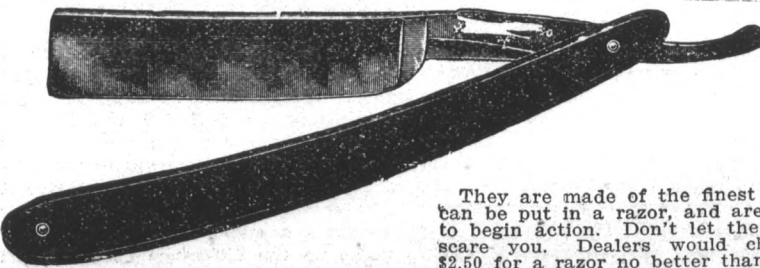
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clean and wax the iron perfectly. Any-one can make it in a few moments time.

Take a board of about three-quarters of an inch thickness and cut a block out of it about 4½ inches long and 3½ inches wide. Warm some beeswax and spread it over one side of the block with a knife like you were spreading a piece of bread with butter; cover the entire block with muslin. Cut a piece of emery paper a little larger than the block so it will lap over about half way down on the sides and ends of the block. Tack it fast to the sides of the block, slit the corners of the paper that projects over the end of the block, fold down and tack fast.

To use: Give the iron a couple strokes over the emery paper to clean same, turn the block over and rub the iron a couple of times over the cloth. The hot iron will promptly draw enough beeswax thru the cloth to give it a good ironing surface, and you will be ready to proceed ironing the most dainty fabrics.

MICHIGAN CROP REPORT.

(Continued from page 638).

northern counties 99 and in the state 97. The condition of corn as compared with an average, in the southern and central counties is 83, in the northern counties 94 and in the state 89.

Barley.—The acreage of barley sown as compared with an average for the past five years in the state and central counties is 87, in the southern counties 86 and in the northern counties 93.

Meadows.—The condition of meadows as compared with an average, in the southern counties is 83, in the central counties 90, in the northern counties 91 and in the state 86.

Potatoes.—The acreage of potatoes planted as compared with an average for the past five years, in the southern counties is 95, in the central counties 92, in the northern counties 97 and in the state 94. The condition as compared with an average, in the southern counties is 87, in the central counties 89, in the northern counties 94 and in the state 88.

Colts and Calves.—The number of colts as compared with an average, in the state, southern and central counties is 93, and in the northern counties 90. The number of calves as compared with an average, in the state and northern counties is 94, in the southern counties 93 and in the central counties 95.

Sugar Beets.—The acreage of sugar beets as compared with an average for the past five years, in the southern counties is 83, in the central counties 95, in the northern counties 84 and in the state 91.

Fruit.—The following table will show the prospect at the present time for a crop of the various kinds of fruit in the state and the different sections:

	State.	So.	Sen.	Nor.
		Cos.	Cos.	Cos.
Apples	80	77	82	92
Pears	76	72	80	85
Peaches	71	66	76	89
Plums	78	77	82	84
Cherries	86	85	87	93
Strawberries ...	84	82	87	89

CROP AND MARKET NOTES.

Ottawa Co., June 11.—Rain has been falling for some time almost every day, until the ground is so thoroly saturated with water that work on the farm is at a complete standstill. There is considerable corn and potatoes to plant yet, and many acres that have been planted will have to be replanted on account of rotting. Grass is growing very well, but it is too wet for wheat and oats. Some fields of oats are being badly eaten by wire worms. Sugar beets that have been sown have come up fairly well, but it has been impossible to weed them on account of the frequent heavy rains. The prospects are favorable for an average yield of fruit. Most of the wool in this section has been marketed at from 25¢ to 32¢ per lb. Some new barns are being built, and others are being repaired and enlarged.

Kent Co., June 14.—The past four weeks have changed the prospect for hay from very poor to good, at this date, and many fields will be fit to cut before we shall be ready. Wet weather has rendered cultivating a week or more late. In spite of rain at blossoming time fruit is well set, and with reasonable spraying a good crop is assured. The last run of old potatoes went out last week at 60¢. This ends the top year for Michigan potatoes. The acreage for 1909 will be no more than normal, for the reason chiefly, that more ground cannot be spared it; then, too, seed will tell some on the acreage. The idea of early planting is growing and more early and less late planting is being practiced.

Shiawassee Co., June 14.—Frequent light showers. Nights cool, accompanied with heavy dews. Corn about all planted and many fields ready for cultivation. Oats coming very slowly and do not promise a fair crop. Wheat is looking fine. The spring has been very favorable for wheat growth and the crop gives indications of being above the average. Bean plant is well under way. A good acreage of beans will be planted in this locality this spring. The hay crop is coming on in fine condition altho not up to that of last season. New seeding is looking well, the frequent rains stimulating a very thrifty growth. Sugar beet sowing is well under way. Many farmers are a little late about putting in their beets on account of the backward season. Fruit of all kinds looking fairly well. Strawberry season will open in a few days but unless the weather promises frequent showers the crop will be short. A few farmers are growing a small acreage of tomatoes for the Owosso canning factory. The tomato crop has proven

a very profitable one with a few farmers. Most of the hay crop of last season has gone to market. Many farmers are following the poor practice of selling off their straw. Good milch cows are selling well from \$50 to \$75. Plenty of hogs in the country. Sheep doing well. Horses are still changing hands at a good price. Much attention is being paid to poultry raising.

Eaton Co., June 8th.—The season continues very backward with rain every few days, or oftener. Pastures and madows are in fine condition, and the grain crops growing well. Some corn, on light soils, is up; considerable yet to be planted, the wet weather delaying plowing, fitting and planting. Sugar beets fared the same, many fields are yet to plant, while bean ground is, in many cases, still to be plowed. Haying and cultivating will come all in a bunch this year, and the farmer will be fortunate indeed who can get help to attend to both properly. By the time beans and late potatoes are planted clover will be ready to cut, but it will be very "catchy" hay weather unless there is a change soon. Prices are continuing good. Wheat has crept up to \$1.50, and beans to \$2.35; corn, 80¢; rye, 85¢; oats, 55¢; potatoes, 75¢; butter, 16¢; eggs, 19¢; hogs, 6¢; calves, 5¢; cattle, \$4.50; lambs 6¢; sheep, \$4.60. Price paid for butter-fat, 26¢. More and more the farmer sells cream and buys butter, making less work in the house.

Gratiot Co., June 14.—At this date corn fields may be seen in every stage. The early plantings are up and a few are cultivated. Others, and the greater number, are grassy and too wet to cultivate. Some have not yet finished planting while many will put in beans instead of corn. Cutworms have been active and are causing much damage. Wheat is looking good. Oats are making rapid growth. Timothy meadows are light but clover has a heavy growth. Small fruit promises a good crop. It is too early to make an estimate of the apple supply. Wool is practically out of the farmers' hands. Some sold as high as 32¢, but that price did not hold long. Tho the month has been wet, we still hope for a good harvest.

Kent Co., May 27.—Crop conditions have improved rapidly since May 15 and crops, tho not as forward as might be wished, are in fair condition and with a few showers now and then a good fair crop hay and fall sown grain may be anticipated. Corn planting is well under way, 50 per cent being in the ground. Late as it is, little corn will be planted in June this year. Cows are now doing their best on the rich juicy June grass and timothy pastures and the market for all farm products continues strong and well sustained. Wool takes an up-turn, tariff or no tariff, and unusually active in the local markets. Meat animals, new milch cows, good horses, and young pigs, like wool, are quick sellers at good figures.

SUMMARY OF JUNE CROP REPORT.

The following tabulation is a summary for the United States of crop conditions on June 1, with comparisons, as estimated by the Bureau of Statistics of the United States Department of Agriculture: Condition June 1.

Crop.	1909.	1908.	1907.	Av. 10-yr.
Winter wheat ..	80.7	86.0	77.4	80.5
Spring wheat ...	95.2	95.0	88.7	92.6
Oats	83.7	92.9	81.6	88.4
Barley	90.6	89.7	84.9	90.6
Rye	89.6	91.3	88.1	89.4
Hay (all)	87.6	96.9	...	...
Clover, for hay ..	84.3	96.7	78.6	86.5
Alfalfa	89.3	88.9	86.1	91.1
Spring pasture ...	89.3	97.7	80.6	91.1
Apples	61.4	66.0	50.1	71.2
Peaches	54.1	73.0	37.4	62.1
Pears	61.8	70.9	...	...
Cabbages	89.2	90.4	84.3	...
Onions	90.9	92.1	87.9	...
Lima Beans	88.0	89.9	...	...
Asparagus	89.2	91.7	84.9	...
Blackberries	90.0	94.0	83.3	...
Raspberries	88.4	91.9	78.7	...
Watermelons	81.5	81.1	74.4	...
Cantaloupes	81.8	81.9	72.8	...
Hemp	85.9	86.0	86.7	...
Sugar Cane	90.6	91.3	91.4	...
Sugar Beets	89.0	86.2	87.8	...
Cotton	81.1	79.7	70.5	81.4

Representing last year's acreages by 100, the preliminary estimates of acreage planted this year are: Winter wheat, 91.8 per cent; spring wheat, 106.9; oats, 100.2; barley, 103.5; clover, for hay, 89.0; sugar cane, 106.9; cotton, 95.6 per cent.

The general average condition of crop growth on June 1, 1909, based upon crops reported, was approximately 4 per cent below conditions on June 1, 1908, but about 8 per cent better than on June 1, 1907.

JERSEY BREEDERS MEET.

The Michigan Jersey Cattle Club will be entertained at its second annual farm meeting by T. F. Marston, Tuesday, June 22, at Marston Farm, Bay City. All those, including the ladies, interested in Jerseys, are cordially invited to be present. Michigan Central train north leaving Bay City at 11:05 will stop at the farm. Conveyances will meet the Pere Marquette train arriving at 12:25 and the Grand Trunk arriving at 11:30 a. m. The first of these meetings was held last June at the home of Mr. Probert at Jackson. The occasion was enjoyed so much by all present that it was voted to hold one each year. It is an admirable means to not only become acquainted with the different people interested in Jerseys but it also affords an excellent opportunity to inspect the different herds of the state. It is to be hoped that everyone that can will take a day off for a good time and enjoy the hospitality at the Marston Farm.

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MARKETS

DETROIT WHOLESALE MARKETS.

June 16, 1909.
Grain and Seeds.

Wheat.—The improved condition of the wheat crop is responsible for the bearish feeling that has crept into the trade the past week. Thruout the southwest, where it was that the crop would not get on the market to affect the July option, the grain is now coming along fast and the whole program of trading in the above future will be altered. The government crop report shows the plant on the first of June to be a fraction of a point above the average for the past ten years. The spring wheat crop is not only better as to condition than it was a year ago but there has been a large increase in the amount put out, fully 6.9 per cent more acreage being reported. The Michigan crop is much improved and from many sections local reports have it that the crop is the best for many years past. The cash wheat is still bullish. Demand for flour is good and the market firm. One year ago the price paid for No. 2 red wheat was 92c per bu. Quotations for the week are:

	No. 2	No. 1	No. 3	Red.	White.	Red.	July.	Sept.
Thurs.	1.55	1.55	1.52	1.18	1.12	1.18	1.12	1.12
Fri.	1.55	1.55	1.52	1.18	1.12	1.18	1.12	1.12
Sat.	1.55	1.55	1.52	1.19	1.13	1.19	1.13	1.13
Mon.	1.54	1.54	1.51	1.18	1.12	1.18	1.12	1.12
Tues.	1.52	1.52	1.49	1.17	1.11	1.17	1.11	1.11
Wed.	1.47	1.47	1.44	1.16	1.10	1.16	1.10	1.10

Corn.—The corn market has been influenced by the bearish feeling in the wheat deal. The cold weather, however, has offset in part that influence and the slump in values has not been as large as in the other deal. The conditions in Michigan are not as promising as a year ago according to the state crop report and a falling off in acreage is also reported. There is little doing on the local market. One year ago the price was 72c for No. 3 corn. Quotations are as follows:

	No. 3	Yellow.
Thursday	77 1/2	78 1/2
Friday	77 1/2	78 1/2
Saturday	77 1/2	78 1/2
Monday	77	78
Tuesday	77	78
Wednesday	76	77

Oats.—The government report gives the acreage of oats in the country as a fraction of a percent larger than a year ago. The condition is several points below the estimate of June in 1908. The values are little changed and the demand and supply are limited. One year ago the price for No. 3 white oats was 55 1/2c per bu. Quotations for the week are:

	No. 3	White.
Thursday	62	62
Friday	62	62
Saturday	62	62
Monday	62	62
Tuesday	62 1/2	62 1/2
Wednesday	61 1/2	61 1/2

Beans.—While occasionally a call comes for future beans no trading results and the market remains lifeless. The following are nominal quotations for the week:

	Cash.	Oct.
Thursday	\$2.55	\$2.05
Friday	2.55	2.05
Saturday	2.55	2.05
Monday	2.55	2.05
Tuesday	2.55	2.05
Wednesday	2.55	2.05

Cloverseed.—The cash deal is dead. Attention is given to futures altho the activity is not very noticeable. The crop is improving generally but the effect has not made much change in the prices offered for the options. The following are the quotations for the week:

	Oct.	March.
Thursday	\$7.10	\$7.25
Friday	7.10	7.25
Saturday	7.05	7.20
Monday	7.05	7.20
Tuesday	7.10	7.25
Wednesday	6.85	7.00

Rye.—This market is quiet and firm. The price is 92c for cash No. 2, last week's quotation.

Visible Supply of Grain.

	This week.	Last week.
Wheat	15,415,000	17,536,000
Corn	2,892,000	2,883,000
Oats	6,931,000	7,499,000
Rye	178,000	219,000
Barley	805,000	944,000

Flour, Feed, Provisions, Etc.

Flour.—Prices advanced. Demand is good. Quotations are as follows:

Clear	\$6.70
Straight	6.85
Patent Michigan	7.10
Ordinary Patent	6.95

Hay and Straw.—Rye straw is higher. Carlot prices on track are: No. 1 timothy, new, \$14@14.50; No. 2 timothy, \$13@13.50; clover, mixed, \$12; rye straw, \$10.50@11; wheat and oat straw, \$8@9 per ton.

Feed.—Steady. Bran, \$29 per ton; coarse middlings, \$30; fine middlings, \$31; cracked corn and coarse corn meal, \$31@32; corn and oat chop, \$30.

Potatoes.—The market for old potatoes is about at an end and those having stocks are anxious to move them. Prices are down. Good stock is quoted at 65@70c per bu. New potatoes from the south are quoted at \$1.65@1.70 per bu.

Provisions.—Family pork, \$21.50@22.50; mess pork, \$20; light short clear, \$20; heavy short clear, \$22.50; pure lard, 12 1/2c; bacon, 15c; shoulders, 10 1/2c; smoked hams, 13 1/2c picnic hams, 10c.

Dairy and Poultry Products.

Butter.—No change in prices and little variation in demand and supply during the past week. The following are the quotations for the week: Extra creamery butter, 26 1/2c; firsts, 25 1/2c; dairy, 20c; packing, 18 1/2c per lb.

Eggs.—The demand for eggs continues

firm. The offerings are large and market is steady with prices unchanged from last week. Extra fresh eggs, case count and cases included are now quoted at 20 1/2c per dozen.

Poultry.—This market is easy and offerings have increased the past few days. Hens are lower. Quotations are: Hens, 13 1/2@14c; roosters, 10c; ducks, 14@15c; geese, 8@9c; turkeys, 16@17c; broilers, 24@25c.

Cheese.—Michigan full cream, 12@12 1/2c; York state, 13 1/2c; limburger, fancy old, 17@18c; new, 14c; schweitzer, fancy old, 20@21c; brick cream, 15@16c per lb.

Fruits and Vegetables.

Apples.—Market steady. Best grades are quoted at \$7@7.50 per bbl.

Onions.—Bermudas, \$1.50 per crate. Strawberries, 24-qt. cases, \$3@3.25. Michigan offerings, \$1.50@1.75 per 16-qt. case.

Gooseberries.—Per bu, \$3.

Cherries.—Sour, \$3 per 24-qt. case.

Vegetables.—Green onions, 10c per doz; radishes, 10@12c per doz; cucumbers, 50@60c per doz; lettuce, 50c per bu, head lettuce, \$2@2.25 per hamper; water-cress, 25c per doz; spinach, 50c per bu; oyster plant, 40c per doz; asparagus, \$2.50 per case; rhubarb, 40@50c per doz; green peas, \$1.25@1.50 per bu.

OTHER MARKETS.

Grand Rapids.

The Michigan strawberry market opened this week in nice shape, with berries of good quality considering the wet weather. Southern Michigan berries are leaders, tho there were a number of crates of strictly local fruit on the city market Tuesday morning, with prices ranging from \$2@2.25. Home grown peas are beginning to come in, selling at \$2 per bu. Prices for stuff on the city market range as follows: New beets, 60c doz; radishes, 6@7c doz; cucumbers, 50@60c doz; homegrown tomatoes, 15c lb; asparagus, 80@85c doz; green onions, 10c doz; head lettuce, 7@8c lb; parsley, 15c doz; beet greens and spinach, 50c bu; pieplant, 30@40c bunch; old potatoes, 70@75c. Dairy butter is up 1/2@1c.

Quotations follow:
Grains. Wheat, \$1.54; corn, 79c; oats, 61c; buckwheat, 60c per bu; rye, 80c.

Beans.—Machine screened, \$2.25.
Butter.—Buying prices, Dairy, No. 1, 19@20c; creamery in tubs, 26c; prints, 26 1/2c per lb.

Cheese.—Michigan full cream is selling at 16@16 1/2c per lb; brick, 17c; Swiss, 17c; limburger, 17c.

Eggs.—Case count, 19@19 1/2c.
Potatoes.—70@75c per bu.

Michigan Strawberries.—\$2@2.25 per 16-qt. case.

Cattle.—Cows, \$2.50@4 per cwt; steers and heifers, best quality, 3@5 1/2c; dressed mutton, 9@10c; dressed veal, 6@9c; dressed beef, cows, 5@6 1/2c; steers and heifers, 7 1/2@9 1/2c.

Hogs.—Dressed, 9 1/2c.
Live Poultry.—Fowls, 10@11c; roosters, 7@8c; turkeys, 18@19c; broilers, 1 1/4 to 2 lbs., 22@25c.

New York.

Butter.—Western factory firsts, 20 1/2@21c; creamery specials, 26 1/2@27 1/2c.

Eggs.—Steady. Western firsts to extras, 22c; seconds, 20@20 1/2c per doz.

Poultry.—Alive, dull. Western chickens, broilers, 22@25c; fowls, 15 1/2@16c; turkeys, 13c. Dressed, weak. Western broilers, 22@24c; fowls, 14 1/2@16 1/2c per lb.

Grain.—Wheat, No. 2 red, \$1.51 per bu; corn, No. 2, 85c; oats, mixed, 62 1/2c.

Potatoes.—Per 180 lbs., \$3@3.50.

Chicago.

Wheat.—No. 2 red, \$1.55@1.60; July, \$1.15; Sept., \$1.09 1/4.

Corn.—No. 3, 74 1/2@75c; July, 72c; Sept., 69 1/2c.

Oats.—No. 3 white, 55@58c; July, 51 1/2c; Sept., 43 1/2c.

Beans.—Pea beans, handpicked, \$2.65 @2.67 per bu. for choice; good, \$2.50@2.60; red kidney, \$2@2.15 for old.

Butter.—Steady. Creameries, 23@26 1/2c; dairies, 20 1/2@24 1/2c.

Eggs.—Steady. Firsts, 20c; prime firsts, 21 1/2c per doz.

Potatoes.—Steady. Carlots in bulk, 50 @60c for average offerings.

Elgin.

Butter.—Market continues firm at 26 1/2c per lb., which is the price of last week. Sales for the week amounted to 903,600 lbs., as compared with 876,600 lbs. for the previous week.

Boston.

Wool.—Altho trading has fallen off, prices hold steady and in certain instances are advancing. Some of the values are the highest on record. The dealing is confined largely to transactions in original bags. The following are the prices for the leading domestic grades: Ohio and Pennsylvania fleeces—XX, 35@36c; X, 33@34c; No. 1 washed, 40@41c; No. 2 washed, 40@41c; fine unwashed, 27@28c; fine unmerchantable, 30@31c; 1/4-blood combing, 36@37c; 3/4-blood combing, 35@36c; 1/2-blood combing, 34@35c; delaine washed, 41@42c; delaine unwashed, 34@35c. Michigan, Wisconsin and New York fleeces—Fine unwashed, 25@26c; delaine unwashed, 31@32c; 1/2-blood unwashed, 35@36c; 3/4-blood unwashed, 34@35c; 1/4-blood, 33@34c. Kentucky, Indiana and Missouri—3/4-blood, 35@36c; 1/4-blood, 36@37c.

THE LIVE STOCK MARKETS.

Buffalo.

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

Receipts of sale stock here today as follows: Cattle, 100 loads; hogs, 12,900 head; sheep and lambs, 3,000; calves, 2,000. The cattle market today was about

steady on the best dry fed cattle and from 10@15c lower on all other kinds. The Texas cattle are coming now and they come in competition with the common and grassy natives. Big, heavy grassy steers sold strong 25c lower. Stockers sold about the same as last week while the fresh cows and springers suffered a decline of from \$3@5 per head.

We quote: Best export steers, \$6.75 @7; best 1,200 to 1,300 lb. shipping steers, \$6.50@6.80; best 1,000 to 1,100 lb. do., \$6@6.40; light butcher steers, \$5.50@5.75; best fat cows, \$4.75@5; fair to good, \$4@4.25; trimmers, \$2.50@3; best fat heifers, \$5.75 @6; light fat heifers, \$4.50@5; best feeding steers, 800 to 900 lb. dehorned, \$4.50 @4.75; 700 to 750 lb. dehorned stockers, \$4.25@4.50; common stockers, \$3.50@4; best bulls, \$4.75@5; bologna bulls, \$4@4.50; best fresh cows and springers, \$4 @50; medium, \$30@40; common, \$25@30.

The hog market opened strong at Saturday's prices and closed 5@10c higher than the opening, all selling that got yarded in time for the market. The prospects look fair for the near future.

Medium and heavy, \$8@8.10, one fancy load \$8.20; mixed, \$7.80@8; best yorkers, \$7.60@7.85; light yorkers, \$7.50@7.60; pigs, \$7@7.10; roughs, \$6.75@6.85; stags, \$5.50@6.

The lamb market today was active at steady prices while sheep were quarter to forty lower than Saturday. Heavy ewes are very slow sale, mostly at \$4.50. We look for about steady prices the balance of the week.

We quote: Spring lambs, \$8.75@9; fair to good, \$7@8.50; culls, \$5.50@6.50; skin culls, \$4@4.50; yearlings, \$7@7.50; wethers, \$5.50@6; ewes, \$4.50@4.75; cull sheep, \$2@3.50; best calves, \$7.50@7.75; fair to good, \$6.50@7; heavy, \$4@5.

Chicago.

June 14, 1909.
Cattle. Hogs. Sheep.
Received today 20,000 32,000 12,000
Same day last year .. 20,947 50,391 17,851
Received last week .. 39,358 150,822 59,837
Same week last year .. 55,914 152,968 66,786

Cattle have not been in very strong general demand for a week past, and all that saved the market from a marked decline in prices was the moderate supplies as compared with recent years. Prices were steady to 10c lower, buyers being apt to show a greater discrimination against the poorer offerings than heretofore, and while dry-lot cattle sold quite well, grassy cows were bad sellers invariably. The slack demand for native beef cattle of the common and medium grades caused no great surprise, as there was a liberal marketing of Texans, and the latter proved strong competitors for buyers' favor at all times. A large share of the native steers sold at \$6@6.90, with the poorer class of light steers selling at \$5 @5.75, and choice heavy shipping steers at \$6.80@7.25. Exporters sold 1,150 to 1,250-lb. steers at \$5.90@6.30, and 1,275 to 1,400-lb. steers at \$6.35@6.60. Light steers were apt to be preferred by domestic buyers, but quality was usually more of a factor than mere weight, and eastern buyers were very exacting. Canners and cutters had a fair outlet at \$2@3.25, cutters selling about 75c lower than at their recent high time. Butcher cows and heifers found buyers at \$3.30@6.40, and there was a sale of prime 1,239-lb. heifers at \$6.85. Bulls sold at \$3@5.50, while calves were active and higher at \$7@8 per 100 lbs., with sales all the way down to \$3.25@6.50 for the commoner kinds. Stockers and feeders were slow at \$3.25@5.60, killers taking the best feeders, and stock ranging down from \$4.25 were dull and weak. Milksters and springers had a fair sale at \$25@58 per head for inferior to prime cows.

Too many cattle were offered today, and prices were weak and frequently a little lower except for the better class of steers and fat butcher stuff.

Hogs have made further approach during the last week to the long-predicted \$8 mark, there being no especially large "runs" after the Monday receipts of 47,809 head. As usual, eastern shippers wanted a good share of the better class of hogs, weighing around 220 to 260 lbs., and such hogs sold particularly well, while grassy hogs were discriminated against by purchasers and sold slowly at a larger discount. Prices are unusually high, being away above the figures paid many years, and the future looks extremely promising for farmers owning healthy growing pigs, but light and grassy underweights are not favored by either shippers or local killers. The current receipts are averaging 217 lbs. in weight, compared with 219 lbs. a year ago, 236 lbs. two years ago and 225 lbs. three years ago. The provision end of the market is extremely active, with an unusually large consumption of fresh pork and cured meats, as these are cheaper than other meats, despite their great dearthness as compared with former years. Today hogs shot up 15@22 1/2c under a small Monday supply and a lively demand, the best hogs selling at \$8.05. Sales were made all the way down to \$7.10 for common hogs. July pork boomed to \$20.65.

Sheep and lamb supplies last week were on a very moderate scale, with inadequate receipts of choice lambs and prime mutton flocks were good sellers. Sheepmen have already marketed most of their holdings, and most of their remaining holdings are inferior in quality and have to go at low prices. The great event of the week was the opening of the season for grass-fed range stock, several shipments being made from Washington. The first of these arrivals were mainly yearlings, with a fair showing of sheep and ewes. The yearlings brot the phenomenal price of \$7.50, the sheep going at \$6 and the ewes at \$5.25, with a sort. The price for the yearlings broke all former records. Spring lambs have been selling at \$5@9.50, and shorn lambs at \$4.50@8.25. The firmness shown in lambs was contrasted by a great fall in fed sheep. Ewes closed at \$3@5.75, wethers at \$4.50@6.25, rams at \$3.50@4, and yearlings at \$6.50@7.25. The market today was unchanged, with few good offerings

and Texas grass sheep going at \$5.10 @5.50.

Horses are in fair summer demand, with ample offerings as a rule, but there are no heavy supplies of the choicer class. The best trade is in big horses, rugged chunks, express and wagon horses, with the bulk of the auction sales of drafters at \$170@200 per head and a better class selling at \$210@250. Expressers are fetching \$160@200, and there is a restricted sale of southern chunks at \$60 @110, the greater part going at \$75@90. Drivers are finding ready sales at \$150@350, and a few farm chunks and mares are wanted at \$130@175, while feeders are salable at \$165@200. The tendency of country shippers is to send in too many common horses.

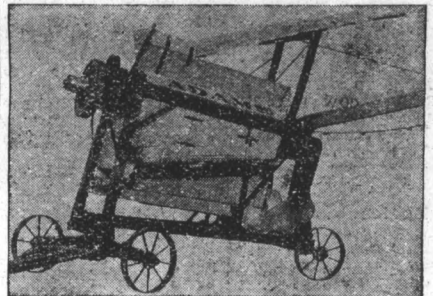
LIVE STOCK NOTES.

The German government refuses to grant any concessions that would result in increased importations of American meats, much to the disappointment of the packers of this country, and the German tax, amounting to an average of 4 1/2c per pound will be maintained. This burden is largely made up of the heavy inspection charges at German ports of entry. Microscopical inspection in Germany is maintained, altho all meats arriving there are furnished with United States government inspection certificates.

The spring clip of wool from the western ranges is unusually attractive in quality, and the clip is the largest in many years. Profits are much greater than usual, and wool growers are receiving from five to ten cents per pound more than a year ago. Wyoming wool has been selling for 25 cents a pound and the Nevada clip for 25 to 26 cents, while Ohio unwashed wool has brot 34 cents. Boston dealers are busy booking orders for future delivery, as remaining stocks are quite small.

Outbreaks of scab thruout the country east of the Missouri River, where breeding flocks of sheep are owned have been reported during the lambing season, and farmers are greatly discouraged. Many farmers have gone into sheep raising and feeding recently, encouraged by the high prices paid this season for fat sheep and lambs, and scab at lambing time is sufficient to ruin all chances of success in many instances, as every shepherd is aware. It has been customary to look upon western range ewes as much harder than natives, but it appears that they take scab as readily as the others. Sheep breeding involves great precautions, and where these are properly observed scab is usually prevented.

SAVE YOUR ENTIRE CORN CROP

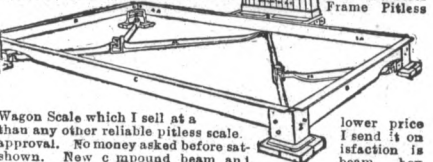


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THE HARRIS MFG. COMPANY, 816 Cleveland Ave., Salem, Ohio.

WANTED An experienced farmer (man and wife) to take charge of a farm in a gentleman's country home about fifty miles from Chicago. Must be a practical farmer, understand stock, capable of looking after gardens, shrubbery, trees, etc. Permanent position, good home and excellent opportunity for the right couple. Write fully your age, number in family and ages, what your experience has been and your idea of wages. No drinkers need apply. Address Albert H. Taylor, 299 Twelfth Street, Wilmette, Illinois.

WANTED—First-class reliable farmer and dairyman, with best references, to take charge of farm in Wayne County, sixty acres cultivated. Good pay. Advertiser, Box 488, Detroit, Mich.

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.
June 17, 1909.

Cattle.

Receipts, 552. Good grades steady; cow stuff of all kinds and bulls 25@30c lower. We quote: Extra dry-fed steers and heifers, \$6@6.50; steers and heifers, 1,000 to 1,200, \$5.50@6; steers and heifers, 800 to 1,000, \$5.25@5.50; grass steers and heifers that are fat, 800 to 1,000, \$5@5.15; grass steers and heifers that are fat, 500 to 700, \$4@4.35; choice fat cows, \$4.25; good fat cows, \$3.75@4; common cows, \$2.75@3; canners, \$1.50@2.25; choice heavy bulls, \$4.25@4.85; fair to good bolognas, bulls, \$3.75@4; stock bulls, \$3.25@3.50; choice feeding steers, 800 to 1,000, \$4.50@4.75; fair feeding steers, 800 to 1,000, \$4@4.50; choice stockers, 500 to 700, \$4; fair stockers, 500 to 700, \$3.50@3.65; stock heifers, \$3; milkers, large, young, medium age, \$4@5; common milkers, \$2.50@3.5.

Roe Com. Co. sold Erbin 1 bull weighing 720 at \$3.50, 1 heifer weighing 740 at \$5, 13 butchers av 850 at \$5.25; to Sullivan P. Co. 1 bull weighing 1,180 at \$3.85, 2 do av 910 at \$3.50, 2 cows av 925 at \$2.50; to Fry 10 butchers av 913 at \$5; to Heinrich 10 steers av 1,108 at \$5.75; to Gerish 10 do av 1,103 at \$5.85; to Sullivan P. Co. 20 butchers av 1,050 at \$4. Bishop, B. & H. sold Mich. B. Co. 9 steers av 808 at \$5.25, 2 do av 660 at \$4, 6 do av 913 at \$5.35, 1 cow weighing 1,000 at \$4, 1 bull weighing 720 at \$3.50, 1 cow weighing 1,200 at \$4; to Austin 1 do weighing 900 at \$2; to Bresnahan 5 heifers av 606 at \$5.25; to Schuman 1 steer weighing 970 at \$5, 1 heifer weighing 1,150 at \$6.50; to Davenport 5 stockers av 720 at \$4.25, 20 do av 620 at \$4.20, 13 do av 625 at \$4.25; to Jaughin 14 butchers av 940 at \$3.15, 2 cows av 840 at \$2.50, 1 do weighing 1,030 at \$3; to Cooke 12 steers av 950 at \$5.85; to Lacault 9 butchers av 811 at \$4.15, 3 do av 790 at \$4.60; to Hammond, S. & Co. 1 cow weighing 910 at \$3, 4 bulls av 930 at \$4, 22 butchers av 920 at \$5.25, 5 do av 644 at \$4; to Lingeman 12 do av 840 at \$5.

Spicer, M. & R. sold Bresnahan 10 heifers av 485 at \$3.75, 2 cows av 825 at \$2.50; to Brown 4 stockers av 490 at \$3.75, 1 cow weighing 800 at \$3, 2 do av 810 at \$2.75, 1 do weighing 940 at \$3.10, 1 do weighing 1,000 at \$2.50; to Mich. B. Co. 2 do av 1,000 at \$4, 1 bull weighing 1,220 at \$4, 1 do weighing 830 at \$4, 2 do av 920 at \$4, 1 heifer weighing 740 at \$3.50; to Fish & Y. 2 stockers av 675 at \$4, 2 cows av 825 at \$3.50; to Schuman 1 bull weighing 800 at \$4, 6 butchers av 925 at \$5.25; to Rattkowsky 5 do av 390 at \$3.25; to Caplis 3 do av 626 at \$4; to Schlischer 15 steers av 872 at \$5.25; to Cooke 4 do av 1,000 at \$6.25, 7 do av 1,021 at \$5.50, 1 cow weighing 1,200 at \$4; to Bresnahan 2 do av 885 at \$2.15; to Mich. B. Co. 16 steers av 860 at \$5.25; to Sullivan P. Co. 1 bull weighing 1,710 at \$4, 6 cows av 1,035 at \$4; to Lingeman 6 steers av 1,100 at \$6; to Fry 3 cows av 813 at \$3.25, 3 butchers av 893 at \$4, 2 do av 655 at \$3.75; to Brown 1 stocker weighing 650 at \$4, 1 do weighing 760 at \$4.

Lovewell sold Mich. B. Co. 2 bulls av 1,025 at \$4, 4 cows av 1,037 at \$3.50, 10 butchers av 776 at \$4.75.

Kelsey sold Hammond, S. & Co. 1 cow weighing 1,200 at \$2.75, 3 do av 1,273 at \$3.75.

Downing sold same 3 steers av 713 at \$4.50, 9 do av 830 at \$5.

Haley sold Caplis 3 steers av 630 at \$4.75.

Same sold Schlischer 20 steers av 869 at \$5.50.

Same sold Sullivan P. Co. 3 cows av 986 at \$3.85, 1 bull weighing 1,000 at \$3.85.

Lewis sold Marx 5 steers av 856 at \$5.

Veal Calves.

Receipts, 949. Market 25c lower than last week. Best, \$6.75@7.50; others, \$4@6.50; milch cows and springers, good, steady; common, dull.

Bishop, B. & H. sold Mich. B. Co. 39 av 140 at \$7, 3 av 170 at \$4; to Sullivan P. Co. 2 av 100 at \$5, 4 av 120 at \$5, 40 av 140 at \$7; to Burnstine 5 av 155 at \$7, 2 av 150 at \$6; to Fitzpatrick Bros. 10 av 145 at \$6.75, 18 av 125 at \$6.50, 1 weighing 180 at \$3; to Thorborn 18 av 150 at \$7, 94 av 144 at \$6.85, 3 av 130 at \$5; to Mich. B. Co. 1 weighing 130 at \$7.25, 22 av 155 at \$7, 3 av 160 at \$6.90; to Newton B. Co. 15 av 125 at \$7; to Parker, W. & Co. 21 av 150 at \$7.25, 7 av 180 at \$7.35; to Hammond, S. & Co. 15 av 150 at \$7.25, 5 av 120 at \$4.50; to Markowitz 4 av 140 at \$4, 12 av 150 at \$7.50; to Sullivan P. Co. 4 av 170 at \$4, 8 av 140 at \$7, 6 av 150 at \$7.25.

Spicer, M. & R. sold Smith 3 av 150 at \$5, 48 av 150 at \$7, 12 av 130 at \$5, 39 av 135 at \$6; to Resenhun 2 av 135 at \$6.50; to Mich. B. Co. 4 av 155 at \$7.25; to Brookloff 8 av 150 at \$7; to Mich. B. Co. 4 av 150 at \$7.25, 1 weighing 160 at \$4, 11 av 165 at \$7.25; to Brookloff 8 av 150 at \$7.

Haley sold Goose 15 av 140 at \$6.10.

Smith sold Rattkowsky 6 av 165 at \$7.

Weeks sold Sullivan P. Co. 31 av 135 at \$7.

Haley sold Caplis 5 av 150 at \$4.50, 31 av 140 at \$6.85.

Same sold Newton B. Co. 4 av 155 at \$4, 15 av 140 at \$7.

Downing sold same 20 av 145 at \$6.75.

Noble sold Burnstine 5 av 155 at \$7, 2 av 165 at \$6.75.

Bohn sold same 3 av 175 at \$5.50, 6 av 155 at \$6.85.
Merritt sold same 7 av 150 at \$7.40.
Johnson sold Thompson Bros. 13 av 150 at \$6.50.
Lewis sold same 4 av 155 at \$7.
Boyle sold same 4 av 135 at \$6.50.

Sheep and Lambs.

Receipts, 1,165. Market 50c lower than last week. Heavy sheep not wanted. Best lambs, \$7; fair to good lambs, \$5@5.50; light to common lambs, \$4@4.50; spring lambs, \$7.50@8.50; fair to good sheep, \$4@4.50; culls and common, \$2.50@3.25.

Spicer, M. & R. sold Newton B. Co. 5 sheep av 125 at \$3.75, 12 yearlings av 77 at \$6.25, 17 spring lambs av 60 at \$8.25, 7 do av 70 at \$8.50, 9 lambs av 80 at \$7.25, 3 sheep av 150 at \$3.75; to Eschrich 2 sheep av 65 at \$4, 10 do av 85 at \$4, 2 do av 100 at \$3, 6 do av 70 at \$3, 60 mixed av 68 at \$5, 2 lambs av 75 at \$7; to Fitzpatrick Bros. 11 sheep av 100 at \$4, 1 spring lamb weighing 70 at \$8; to Sullivan P. Co. 10 do av 64 at \$8.

Roe Com. Co. sold Halse 2 sheep av 155 at \$4.50, 2 spring lambs av 55 at \$8.

Bishop, B. & H. sold Mich. B. Co. 4 sheep av 145 at \$4, 4 do av 115 at \$3.75, 3 bucks av 175 at \$3.50, 9 sheep av 195 at \$4.25, 17 lambs av 75 at \$7; to Sullivan P. Co. 11 sheep av 100 at \$3.75, 11 mixed av 65 at \$6.75; to Mich. B. Co. 41 lambs av 77 at \$7.50; to Sullivan P. Co. 10 spring lambs av 67 at \$8.50; to Fitzpatrick Bros. 22 lambs av 77 at \$6, 57 do av 75 at \$7, 20 sheep av 116 at \$3, 18 do av 85 at \$4, 16 spring lambs av 60 at \$8; to Young 18 lambs and sheep av 75 at \$6, 5 spring lambs av 65 at \$8.25, 40 mixed av 70 at \$5; to Mich. B. Co. 41 mixed av 85 at \$5.25, 28 lambs av 85 at \$6, 17 sheep av 80 at \$4; to Parker, W. & Co. 21 spring lambs av 60 at \$7.50, 16 sheep av 90 at \$4.50.

Johnson sold Mich. B. Co. 4 sheep av 95 at \$3, 23 do av 90 at \$5.50.

Haley sold same 6 lambs av 80 at \$6.50, 2 sheep av 125 at \$4.

Bohn sold same 5 spring lambs av 63 at \$7.25, 2 sheep av 110 at \$4.

Vickery sold Fitzpatrick Bros. 21 spring lambs av 58 at \$8.25, 2 sheep av 120 at \$4.

Merritt sold same 2 do av 65 at \$4, 9 mixed av 77 at \$6, 6 spring lambs av 58 at \$8.50.

Hogs.

Receipts, 2,378. Good grades 35@45c higher; pigs steady.

Range of prices: Light to good butchers, \$7.75@7.85; pigs, \$6.75; light yorkers, \$7@7.25; grass hogs, \$7@7.50; stags, 1/2 off. Bishop, B. & H. sold Parker, W. & Co. 315 av 175 at \$7.85, 50 av 137 at \$7.25, 111 av 160 at \$7.65, 341 av 160 at \$7.60, 166 av 170 at \$7.50, 411 av 165 at \$7.70, 112 av 170 at \$7.75, 62 av 170 at \$7.80.

Sundry shippers sold same 77 av 210 at \$7.50, 52 av 150 at \$7.70.

Spicer, M. & R. sold Hammond, S. & Co. 125 av 195 at \$7.85, 114 av 185 at \$7.80, 235 av 180 at \$7.75, 83 av 170 at \$7.65, 74 av 175 at \$7.60.

Sundry shippers sold same 125 av 195 at \$7.75, 48 av 215 at \$7.80, 75 av 193 at \$7.70.

Bishop, B. & H. sold Sullivan P. Co. 65 av 175 at \$7.75, 41 av 180 at \$7.85.

Roe Com. Co. sold same 66 av 168 at \$7.65, 31 av 201 at \$7.35, 38 av 184 at \$7.70, 6 av 183 at \$7.90.

Sundry shippers sold same 22 av 165 at \$7.85, 50 av 185 at \$7.90, 33 av 167 at \$7.65.

Merritt sold same 13 av 21 at \$8.

Friday's Market.

June 11, 1909.

Cattle.

Market steady at Thursday's prices. All kinds of bulls very dull and 15@20c lower.

We quote: Dry-fed steers and heifers, \$6.25@6.35; steers and heifers, 1,000 to 1,200, \$5.75@6; steers and heifers, 800 to 1,000, \$5.25@5.50; grass steers and heifers that are fat, 800 to 1,000, \$5@5.25; grass steers and heifers that are fat, 500 to 700, \$4@4.50; choice fat cows, \$4.50; good fat cows, \$4@4.25; common cows, \$3; canners, \$2@2.50; choice heavy bulls, \$4.25; fair to good bolognas, bulls, \$4; stock bulls, \$3.50; choice feeding steers, 800 to 1,000, \$4.50@4.75; fair feeding steers, 800 to 1,000, \$4@4.50; choice stockers, 500 to 700, \$4; fair stockers, 500 to 700, \$3.50@3.75; stock heifers, \$3; milkers, large, young, medium age, \$4@4.5; common milkers, \$2.50@3.5.

Miller Bros. sold Kamman B. Co. 7 cows and bulls av 1,211 at \$4.75.

Veal Calves.

Market 25@50c lower than on Thursday; best, \$6.75@7.25; others, \$4@6; prospects lower; milch cows and springers dull, common grades not wanted.

Bishop, B. & H. sold Sullivan P. Co. 1 weighing 150 at \$7.25, 1 weighing 110 at \$5, 3 av 145 at \$6.75, 2 av 115 at \$6, 4 av 140 at \$7, 8 av 180 at \$7, 1 weighing 150 at \$5.

Miller Bros. sold same 7 av 155 at \$5.75.

Lucke sold same 22 av 140 at \$7.

Sheep and Lambs.

Market steady. Heavy ewes hard to sell. Butchers cannot sell the mutton. Best lambs, \$7.50; fair to good lambs, \$6@6.50; light to common lambs, \$5@5.50; spring lambs, \$8@8.25; fair to good sheep, \$4@4.50; culls and common, \$2@3.

Bishop, B. & H. sold Mich. B. Co. 4 lambs av 83 at \$7.25, 4 sheep av 115 at \$4.50, 2 do av 150 at \$3.50.

Miller Bros. sold Sullivan P. Co. 4 sheep av 85 at \$3.

Lucke sold same 3 sheep av 170 at \$3, 8 do av 120 at \$5, 3 lambs av 68 at \$7.50.

Hogs.

Market 10c lower than on Thursday. Common grass stock not wanted by packers.

Range of prices: Light to good butchers, \$7.40@7.45; pigs, \$6.70@6.75; light yorkers, \$7@7.25; stags, 1/2 off.

Bishop, B. & H. sold Parker, W. & Co. 43 av 190 at \$7.45, 10 av 160 at \$7.40, 92 av 170 at \$7.35.

Sundry shippers sold same 180 av 185 at \$7.40.



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THE SPOKANE, north of the city of Spokane, has about 50,000 acres.

The Flathead lands are appraised at \$1.25 to \$7.00 an acre—the others not yet appraised.

REGISTRATION for all these lands extends from July 15 to August 5, 1909. Drawing will take place August 9, 1909. Entries will not be made before April 1, 1910.

For the Flathead land, registration is at Missoula, Montana.
For Coeur d'Alene land at Coeur d'Alene City, Idaho.
For Spokane land at Spokane, Washington.

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HORTICULTURE

CARE OF ORCHARDS IN SUMMER.

Growers generally are convinced that it is not possible to grow first-class fruit, even of the apple, in orchards that are kept continuously in sod, and from which a hay crop is removed. The grass robs the trees of food and water, and prevents the proper development of the fruit.

Pasturing the Orchard.—In some cases the orchards are used as pastures for cattle, sheep or swine and, while this has some advantages over keeping them as "hay" orchards, especially as hogs will cultivate the soil to some extent, and all will assist in keeping down the insects by eating the fallen fruit, they do some harm by browsing on the branches, and by gnawing or rubbing the bark, while at best the grass is still at work drinking up the water and plant food from the soil. While under some conditions orchards may be pastured, as a rule it cannot be considered the best method of handling them.

Mulching the Trees.—The sod mulch treatment will be better than pasturing. In the case of young trees enough of the hay crop is placed about the trees as a mulch to prevent the growth of grass, and as they get older the crop is all cut and all of it is left on the ground. If there is no danger of injury to the trees, orchards that are sod-mulched by packing the first crop about the trees, may be pastured later in the season.

In the case of bearing apple orchards even better results can be secured if the trees are heavily mulched, using straw or any crop that has been spoiled in the curing. This should be put on deep enough to keep the grass from growing over a circle somewhat larger than the branches. If the trees are carrying a heavy crop and are making a short growth, straw manure can often be used to advantage. This treatment will often revive trees that are apparently dying and will certainly improve the growth and enlarge the fruit.

Cultivating the Orchard.—Plowing and cultivating is also desirable when trees are not doing well, but if persisted in for a term of years, the humus and fibre of the soil will disappear and it will soon become so that it will hold neither moisture nor plant food, and suffer seriously from washing. For these reasons it is seldom desirable to keep up the cultivation until after the middle of July or first of August and then, with the last working seed to crimson or mammoth clover, or use oats, or better yet barley, if the trees are already making sufficient growth. These crops help the trees to ripen in the fall, lessen the injury from deep freezing in winter, and also furnish a considerable amount of humus when turned under.

Combination Sod and Tillage.—For apple orchards, in particular, some combination of sod and tillage often gives good satisfaction. While the trees are small, some hoed crop may be grown for a number of years, but this should be discontinued when it becomes difficult to properly cultivate the trees, or when the crops occupy the feeding ground of the tree roots. After that, the center of the space between the rows of trees may be seeded to clover in June, and the strip at either side of the trees cultivated for another month, when a cover crop may be sown. The next year the clover crop is turned under early in June and the land cultivated for two or three weeks, when mammoth clover may again be sown in the spaces running at right angles to those seeded the previous year and the strips along the tree rows may again be cultivated.

Agri. College, Mich. L. R. TAFT.

THE LATE CABBAGE CROP.

From June 18 to 25 is about as late as the transplanting of this crop should be deferred in most locations; and for some sections that the M. F. reaches the former will be better than the latter date. If the ground is not already prepared there is no time now to spare in its preparation. Should there be unavoidable delay in getting the plants out it need not deter the work of fitting for frequent working, up to the time of setting will aid much in the after handling of the crop. Deep plowing is not essential, five inches being enough for ordinary circumstances; but the ground should be loaded to gunwale with well rotted manure so that the plant food will

be available as soon as possible. If no other top dressing is at hand nitrate of soda at the rate of 150 pounds per acre applied just before setting the plants will greatly aid in giving them an immediate start. If large and thrifty stock is used, clipping off the heavier leaves will lighten the check that transplanting will otherwise give them. The ground for late celery is also in line for preparation now, especially for the larger, longer standing sorts. Golden Self-blanching and other smaller varieties may wait until later if desired; but the heavier growing kinds ought not to wait too long. At all events, the sooner the work of preparation begins the better it will be for the crop in the final outcome. Plow shallow for this crop as the plants feed comparatively near the surface and the roots ought not to be forced to go deep into the ground to find their food. So top dressing will give good results; and whatever of fertility can be given will make good returns. There is no better use that can be made of the poultry manure than to apply it, either as top dressing or in the liquid form, to this crop. It will stand lots of it and crisp, tender stalks of good size will be the result. It is a good plan to clip back the tops in the rows some time before setting, but by all means shorten back at least one-third when transplanting. The roots also should be shortened back as much at this time as the plants will recover from the check of setting much more quickly and will be doubly more likely to live.

As to setting out, circumstances must, of course, largely determine the method. If only small space is available, very good results may be had by setting in close rows. Six inches apart, or a little more, each way will be sufficient; in which case they will be self-blanching. Lumber is scarce and high, so that blanching with boards is expensive, while many more plants may be set in the same space, than if mound blanching is followed. By far the larger portion of celery is grown by the latter process, and we believe that hilling with soil gives the best quality of crop. These points of course, must all be settled before transplanting is begun else we run up against difficulties. If space is limited, it need not deter us from growing it as we can utilize the close setting. If lumber is available and the board-blanching seems most desirable, then 24 to 30 inches apart is ample space for the rows. Where we have ground to burn and ample supplies of fertilizer then the hilling method is by all means advisable and the rows should be extended to three and a half or four feet apart, depending much upon the varieties grown.

Wayne Co. J. E. MORSE.

ASHES AS A FERTILIZER.

Ashes are, on a majority of farms, thrown out on the ash pile and allowed to leach out and go to waste, yet as compared with the commercial fertilizers, taking potash as a basis at the present ruling prices, ashes are worth nearly 40 cents a bushel. The mineral elements of plant food are represented in wood ashes in about the same proportion as they are needed in other trees or plants and in a form that enables plants to make use of them almost immediately.

The function of any plant is to produce seeds, not fruit. A small snarly apple, plum, or other fruit will be found to contain full grown seeds, and in many cases far more and larger seeds than the fair large apple or other fully developed fruit. Chemical analysis of seeds will show them to contain a relatively large amount of potash as compared with the plants or fruits from which they are obtained, and this is pre-eminently true of all fruits grown in our orchards. After a few crops of large fruit, come small one-sided apples, plum pockets, or perhaps no fruit at all for the reason that the potash in the soil has become exhausted. The trees are living on short rations, with plenty of food going to waste in the ash heap.

In applying ashes in the orchard one must remember that the small rootlets are the feeders of the tree and are directly underneath the small branches of the tree, hence, in order to obtain the most benefit from the ashes, spread them over the small rootlets. The effect of the first application will be noticed the year following the application; therefore, a bushel or two should be applied to each tree every year. The first application should be from one to four bushels to each tree, but do not put them close to the trunk of the tree as there they may

then be injurious.

By saving the ashes in this way, and having your friends in the village save them for you, in a short time your orchard will more than pay for the trouble. Charlevoix Co. E. A. R.

PEACH LEAF CURL.

A large number of letters coming to the experiment station asking about peach leaf curl—that is at present conspicuous in many orchards—indicates that there are many owners of peach orchards who are not familiar with the nature of the trouble and the method of preventing its occurrence.

The name describes the appearance of the disease. It is caused by a fungus which lives over winter in the twigs and attacks the leaves as soon as the buds open causing them to become distorted and curled. In June or July, the affected leaves fall and new ones are produced. This weakens the tree and often causes a dropping of the fruit which follows the loss of the foliage.

The only treatment is to spray the tree in late winter or early spring with a copper sulfate solution or Bordeaux. If the trees must be treated for scale, the spraying necessary for this will also do to check the curl. The important point is to get this spray upon the tree before the buds break. We have seen orchards of Elbertas—this variety is very susceptible to the trouble—that had been well sprayed at the time some of the buds were breaking, and an examination later showed that the curl was as bad on these sprayed trees as it was upon any unsprayed trees in the vicinity. The spraying will be almost a failure unless this point of getting it on before the buds break is most carefully observed.

Mich. Ex. Sta. H. J. EUSTACE.

PRUNING RASPBERRIES.

In pruning the canes we try to cut them back to live wood and farther if the canes are too tall to support themselves, about four feet for reds and somewhat shorter for blacks unless they have supports of stakes or wire. Blackberries are left somewhat taller if they are quite stocky. These and the black raspberries are clipped during the previous summer so they have thrown out strong lateral branches and have not grown so tall. We have tried taking out the old canes in the fall and while it is good practice from a sanitary viewpoint I believe it is more easily done during the winter and spring.

As soon as the rows are pruned and cleaned out the spraying may be done. We have found that this is becoming necessary to protect the canes from diseases like the anthracnose which may cause the canes to die entirely shortly before fruiting time.

Calhoun Co. S. B. HARTMAN.

SPRAYING NOTES.

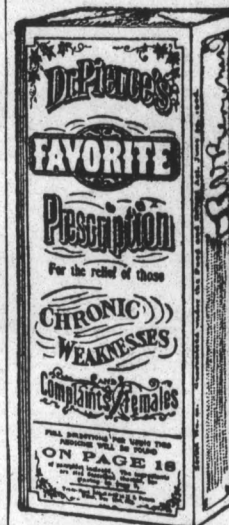
It is true, in this locality, that five orchards are being sprayed this year where but one has been sprayed before. If this is true all over the state, Michigan will receive a big boost in her waning reputation as an apple state. It is coming to the point where the general farmer as well as the fruit grower realizes that he must care for his orchard or go fruitless, and apples at five cents apiece are not conducive to a proper satiation of the apple lover's palate. It starts him to thinking that perhaps he can take the time to spray after all, then he sees his neighbors spray and the contagion strikes him. It's a little like the spread of the local option wave over the state. I think they will work together nicely for if we can't sell cider we will have to grow eating apples, and we can't grow good eating apples unless we spray. We will have to turn the cider barrel into a spray barrel and substitute apples and fresh apple juice for the hard cider and "the juice" of bygone days.

S. B. H.

Some of the catch crops used for succession, as snap beans, radishes, etc., must be sown from time to time as occasion requires. This cessation from sowing and transplanting for a time will give a respite from the hurry of former weeks in certain directions, but not so with most of the detail work in general. For now is the time to bring up all the odds and ends that up to this time have been permitted to go by default. There are doubtless missing hills, or sometimes it may be, whole rows even, that require filling in, for it will hardly pay to let such spots or places lie idle.



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THE DAIRY

CONDUCTED BY COLON C. LILLIE.

DAIRY BREEDS AND BREEDING.—I.

In developing a herd of profitable dairy cattle the question of breeds and breeding plays a most important part. Not that any one breed of dairy cattle is better and more profitable than another, but that certain breeds have been bred and developed for certain specific purposes until they can be depended upon to transmit these fixed qualities and characteristics of their descendants and if we breed our dairy cattle in a manner that will perpetuate these desirable qualities it is essential that we possess a practical knowledge and understanding of a few of the fundamental principles of breeding and the influences of food and environment upon the qualities of our cattle.

A judge of dairy form, traits and characteristics can get together a fairly good herd of dairy cattle by buying a few head in a place from other dairymen, that is, cattle of mixed breeding. In this way a herd may be secured at a reasonable cost, but right here the question of breed and breeding becomes of paramount importance to the dairyman. Such a herd of mixed breeding may become profitable for a few years, but when it comes to replacing the cows that are discarded, the cow of mixed breeding can not be depended upon to produce offspring that will equal or exceed her in quality.

It is here that we are compelled to recognize the value of the pure-bred animal that comes from a line of creditable ancestry on both sides. She is a present-day model, a type, representing the sum and aggregation of all of her ancestors. She is a representative of what her dam and granddam were in their day—a link in the chain of creation, carrying down the inherited qualities and tendencies of her breed from one generation to another. It is this invisible inherent quality in the pure-bred animal that makes her valuable. She has the perpetuated excellence of her ancestry and, if properly bred and cared for, will produce calves that will equal or exceed her in value when put in the dairy. One farmer may prefer one breed and another may prefer another breed, but this is more a matter of individual fancy and does not indicate that one breed is superior to another.

The influence of food and environment has played an important part in developing the various breeds. The Holstein cattle were developed in a country where the land was low and the vegetation luxuriant. Their food has consisted largely of early-cut hay, or green grass, and they have developed a great feeding capacity and, having been bred along milk-producing lines for so many generations, they give a large amount of milk, rather deficient in butter-fat. The Ayrshire cattle were developed in a country where the vegetation was scarce and they developed into a breed that is hardy and vigorous, possessing ability to travel long distances for their food and keep in good condition under circumstances and conditions that would prove unprofitable for the less hardy and vigorous breeds. The Jerseys and Guernseys were developed under a congenial environment and have been given tender care and treatment. They have been selected and bred with a special view to giving rich milk.

To develop the different breeds of dairy cattle to their present state of perfection has required many years, and it is a great debt of gratitude that we owe to the untiring labors of the men who have bred and developed, and handed down to us, such breeds of dairy cattle as the Holsteins, Ayrshires, Jerseys, Guernseys and Brown Swiss, as a legacy, representing years and in many instances their life work at systematic selection and breeding.

Way Open to Further Improvement.

With excellent individuals of these breeds and the improved ways of testing each individual, further improvement should be certain and rapid. In selecting individual cows for the formation of a herd a dairyman should inspect their sire and dam and determine to what degree they have transmitted their prepotency. In this way he is better able to judge of her qualities as a breeder. Prepotency is the power to transmit, in a marked degree, the desirable qualities and characteristics to the offspring.

After making a close examination of the individual, a close study should be made of the milk and butter records of her dam and granddams as well as their sires and their dams and granddams.

Of course, if a man were to go out and buy a full herd of registered dairy cattle it would mean a large expense, much more than the present prices of dairy products would warrant, but a few good cows and an excellent sire will make a good foundation for a herd and, by keeping them in connection with grades or common cows, he can gradually work into a pure herd. The breeder who starts with three or four cows has a better opportunity to study his individuals and their breeding than he would if he was working with a large number.

The breeding bull should have a kind, sprightly disposition and a masculine appearance about the neck and head. The bull has just as much right to appear masculine as a man has to have a beard. If possible, it is a very good plan to buy a bull that has proven himself a good breeder and that has living progeny as witnesses of his prepotency. It requires a number of years to determine a bull's value as a breeder, and when a new breeder can secure a desirable breeding bull at a reasonable price, it is safer than buying a younger animal that has not proven his power of prepotency.

The Breeder's Part.

To successfully manage a pure-bred herd of dairy cattle a man must be a close student of the dairy cow and her adaptability; of selecting dairy traits and performance; of bringing together and uniting family peculiarities; of dairy form, function and temperament and the advantages and dangers of close in- and inbreeding and of line breeding to intensify and make permanent the good qualities and eliminate the undesirable qualities.

There are few men who measure up to the standard of present-day requirements in the intelligent selection and mating of dairy animals. The breeding of dairy cattle is a matter surrounded with difficulties which are rendered all the more uncertain and tantalizing by the highly artificial condition under which our cattle are kept. In breeding from these animals we endeavor to surmount the obstacles above mentioned. In view of the great law, "Like begetting like," it is of the utmost importance that the successful breeder of dairy cattle understand the peculiar development of the animals best adapted to meet his special purpose. What we consider a perfect development in a dairy cow of today is in reality an unnatural deformity. This we want to perpetuate and we are compelled to combat natural hindrances which impede the certainty of our results, but by availing ourselves of the great law, "Like producing like," we select animals possessing the required qualifications and as there is a close relationship between the form of an animal and its function, temperament and constitution, we are enabled to make a more intelligent selection of our breeding animals when we have a practical understanding and knowledge of these laws of breeding. In future articles I shall discuss the laws of variation, similarity and atavism as applied to the breeding of dairy cattle.

New York. W. MILTON KELLY.

WOULD SELL THE COW FOR BEEF.

My cow pasture this season consists of June grass, marsh grass, "sugar" grass and blue-stem mostly. What kind of a grain ration, and how much, ought I to give each cow?

I have a cow that I think was overfed on corn-and-cob meal last winter. She is now nearly dry though not due to calve until the middle of September. She is now fat and will bring good money for beef. Ought I to sell her or run the risk of losing her when she calves? She is very large and fat; will weigh between 1,400 and 1,500 lbs.

Cass Co.

SUBSCRIBER.

In answer to the first question, what kind of grain ration and how much ought to be fed each cow, I would refer you to my answer to Mr. Geo. J. Beaumont upon the same question. There is one phase of it, however, which is not brought out in that question, and that is, the amount of grain for each cow. This is something that no man can answer because he does not know how good the pasture is. What you want is a full ration. If you have good, luxuriant grass so that the cows can get all they want without traveling too much, you have a full ration without grain. If you have a poor pasture, then you want considerable grain; this must be taken into consideration and you must use your judgment. Most people have plenty of pasture at this time of the year and do not feed grain. Then when the pasture begins to shrink, or to lose in productiveness, as the midsummer comes on, they supplement it by feeding grain, at first only a small amount and gradually increasing.

CREAM SEPARATOR "SPLIT-WING" FEEDING DEVICE

Last week we referred to the recklessly untrue statements as to separator "DISCS" by desperate would-be competitors struggling to retain any cream separator business.

We made the point that the DE LAVAL COMPANY owned the first "HOLLOW" bowl and the first "DISC" bowl and has originated all the improvements upon both, so that we are free to use the best and any combination of the best features, while would-be competitors are forced to get along with twenty or thirty year old types of construction upon which DE LAVAL patents have expired.

We made the point that anyone however unfamiliar with separators can readily understand that DE LAVAL "DISCS" are as necessary to the bowl of the cream separator as teeth to the human mouth.

Comparing the "DISC" with the "HOLLOW" bowl we made the point that a man can chew without teeth and that you can separate without discs, but in both cases at a great disadvantage.

We made the point that so far as imitating "DISC" separators are concerned they compare with the IMPROVED DE LAVAL about as artificial teeth do with a perfect set of natural ones.

Now we would make a most important addition to the illustrative comparison, or in other words the "SPLIT-WING" SHAFT or FEEDING DEVICE used in conjunction with DE LAVAL "DISCS" which protecting patents prevent the use of in any other separator.

The "SPLIT-WING" FEEDING DEVICE distributes the incoming volume of full milk throughout the separating body of the bowl, between the "DISCS" and between the walls of cream and skim milk, preventing all conflict of currents and any remixing of the cream and skim milk in process of separation.

In a practical sense the "SPLIT-WING" FEEDING DEVICE is as necessary a part of the combination with "DISCS" in the cream separator bowl as the tongue with the teeth in the human mouth.

The "HOLLOW" bowl separator is like a mouth without teeth and imitating "DISC" separators are like mouths with artificial teeth but without tongues to facilitate mastication.

It requires IMPROVED DE LAVAL "DISCS" and the DE LAVAL "SPLIT-WING" FEEDING DEVICE to complete the PERFECT cream separator bowl, thereby doubling capacity, doubling efficiency and doubling durability.

In addition the DE LAVAL supporting and driving mechanism, the result of thirty-one years of world-wide separator experience, is better quality, better designed, better made and superior in every way to that of the best of would-be competing separators.

That's the whole separator problem briefly stated. A DE LAVAL catalogue explaining it all in full detail is to be had for the asking, as well as an IMPROVED DE LAVAL MACHINE for practical demonstration of every claim made to any intending separator buyer.

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Closest skimmer—Easiest running—Easiest to clean—No trouble oiling or danger of running dry like others, which alone is worth \$50 extra. Costs nothing extra on a Galloway. Send me your name today so I can write you my Special Proposition, at the price I'm making direct to farmers and dairymen, based on my output of 14,500 Galloways this year. I'll also send you my big BOOK FREE. Address—Wm. Galloway, Pres., WM. GALLOWAY CO., 643 Galloway Station, Waterloo, Iowa.

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and is the most easily and quickly cleaned Cream Separator on the market. No other manufacturer can offer such a simple, sanitary and satisfactory cream separator—a machine with a genuine aluminum skimming device that opens every part just like the leaves of a book, and admits of thorough cleaning instantly—because

The NEW BUTTERFLY CREAM SEPARATOR

is patented in all the leading Dairy Countries of the world, and has 8 times the skimming efficiency of other separators that sell at double the very reasonable price we ask. Shipped on our liberal

FREE TRIAL PLAN

No money in advance. Fully guaranteed. Freight prepaid. Ask us for our Cream Separator Book; it is FREE, and contains valuable information that you ought to know before buying any machine. Write for it today. Address

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Its Low Supply Can, easy cleaning, easy turning, few parts, dust and oil proof frame, enclosed gearing, high quality construction, and long life are fitting accompaniments of this wonderful new patented Skimming Device.

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THE BOSS CREAM RAISER



will raise the cream between milkings and give you sweet skim milk for house and stock. Ice not necessary, cold well or spring water will do the work. No skimming, no crocks and pans to handle. **TEN DAYS FREE TRIAL.** Price \$3.25 and up. 50,000 of these machines in use today. Send for Free Catalog.

BLUFFTON CREAM SEPARATOR CO., BOX E, BLUFFTON, O.

You Are Losing Money



If you haven't a Saginaw Silo beside your cow barn. No invention of modern times can compare with it as a money-maker. Wherever corn, clover and alfalfa grow, the Saginaw Silo is making farmers rich. You cannot afford to be

Without a Saginaw Silo

Silage from it tastes so good to cows that they crowd themselves to the limit of milk-giving capacity. Steers fatten twice as fast as on dry feed or pasture. Write for Free Catalog and Silage book.

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the amount as the pasture grows shorter. This is the only business-like plan to follow.

With regard to the second question, I will say that taking everything into consideration, I would sell this cow for beef and take the money and buy another one. You can find one, perhaps, that will make you more money than this cow. It's a pretty good indication, since she has gotten fat while giving milk, that she is not a first-class dairy cow, altho, of course, by overfeeding her on corn-and-cob meal you may have put her out of business for this period of lactation only. She might be all right when she came in again, but there would be a risk to run, and as long as she is in good shape for beef now and you can sell her for a good price, I would not run this risk, but would sell her for beef and buy another cow.

THE BEST GRAIN TO FEED ON PASTURE.

Please tell me what is the best grain feed for cows that are running on grass. Kalamazoo Co. G. J. BEAUMONT.

Personally, I think the best grain to feed to cows on pasture is corn meal and wheat bran mixed half and half by weight. I do not believe you can get a grain ration the cows like better or that will supplement the pasture any better than this. The expense, however, is against it at the present time. Bran is very high and so is corn meal. You can make a little cheaper ration by substituting cottonseed meal for the bran, mixing the corn meal and cottonseed meal half and half by weight and you would not have to feed as much to get the same results as you would in feeding wheat bran. Cottonseed meal is very good for cows on grass in one respect, because it gives a very firm, hard butter, and grass butter is liable to be a little bit soft. Cottonseed meal helps to stiffen it up. As a matter of fact, almost any grain, when the pasture gets a little short, is a profitable investment, even at present prices.

SOME MORE GOOD COWS.

Seeing Mr. Shipway's report in Michigan Farmer, I am sending a similar one. I have eight cows which freshened between August 24 and December 24, 1908, aged from three to 13 years and varying from half-blood to full-blood Jerseys. They were fed hay and corn stover and a little fodder corn for roughage, with corn meal, bran and cottonseed meal for grain. The record which I send is for five months previous to May 23, 1909. During that time I fed 1½ tons cottonseed meal, which cost \$46; 1 ton of bran \$26; both purchased by selling oats which were too expensive to feed. The average grain ration per dry cow was 2½ lbs. cottonseed meal, 1½ lbs. bran, and 3 lbs. corn meal.

The record of production is as follows: 1,700 lbs. butter, \$432; milk and cream used, \$9; 10 calves for sale, raised from skim-milk, \$125; total for 5 months, \$566.

Hillsdale Co. O. S. THOMPSON.

SECRET OF PRODUCING GOOD CREAM.

A western experiment station has issued the following suggestions to dairymen as a guide for the production of cream of good quality:

Clean cream, cold cream, and rich cream are the words which tell the secret of producing sweet cream.

Be clean and sanitary in milking.

Have all pails, crocks, cans, and dairy utensils scalded and clean.

Keep the separator clean by washing after each separating.

Cool each lot of cream in cold water before adding to the general lot of cream.

Have a well ventilated cave or cool cellar in which to keep the cream.

Skim—rich cream—35 to 45 per cent—and it will keep sweet longer.

Deliver the cream to the creamery or receiving station three times a week in summer and twice a week in winter.

Insist on the creamery man weighing out the sample of cream for a test instead of measuring in a pipette. The scales—e accurate.

Have the cows come fresh in September and October and receive 25 to 30 cents a pound for the butter-fat in winter instead of 15 to 20 cents a pound in summer.

Interesting News.

I get more interesting news from the Michigan Farmer than any paper I subscribe for.—Henry Hoppe, Hesperia, Mich.

A Sick Man is Likely to Display Bad Temper

He should not be blamed; he should be pitied. A very sick man in his delirium may make awful threats, but no one need be disturbed about them.

A very sick separator manufacturer is just at this time making some foolish threats about patent litigation and in his delirium is attempting some things which a rational man would not undertake, and which will only exhaust the little strength there is in him.

The Sharples Separator Company

is the strongest financially of any separator manufacturing concern and is the oldest in America. Every Sharples separator is sold under a guaranty of full and complete protection to the agent who sells and to the user who buys, against any and all patent infringement litigation of every character. We are thoroughly posted on all cream separator patents and every patented feature of a Sharples separator is controlled by The Sharples Separator Company. Any claim to the contrary made by a disgruntled competitor is without grounds and made solely for the purpose of intimidation.

Tubular Cream Separators Stand Alone

in a class by themselves, the highest type of centrifugal cream separator, entirely different from all others, and no competitor has ever claimed that Tubulars in any way infringed his patents. Tubular Cream Separators are sold to the best dairymen in the world, but there are some people who insist upon buying something cheap regardless of inconvenience, loss of time, trouble to keep clean and unavoidable repair bills. Those people buy disk separators and aim to buy the best disk separators obtainable. We are building and selling by far the best disk machine—our Jersey separator—the cheapest thing we build, but nevertheless a better separator than the best of other disk machines, and which we sell at a price far below what the aforesaid "sick man" is asking for an inferior machine.

That Is Where the Shoe Pinches

And that is why the "sick man" is threatening patent suits. It's easy to understand. If you want the best separator in the world, buy a Tubular; if you want the best disk separator, buy the Jersey, and bear in mind that we guarantee to protect you and hold you harmless against patent litigation from any and every source. Write for catalog 152.



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The CREAM SEPARATOR For DISCRIMINATING BUYERS

Among the leading breeders and discriminating dairymen the United States Separator is recognized as the Best High Grade Separator made, and is used by them.

We want the opportunity to demonstrate to prospective purchasers that the United States is cheapest in the long run.

It costs no more than other Separators of equal capacity. It lasts longer, gives less trouble and has far greater cash value.

It is cheaper in the end than Separators selling at lower prices, because there are practically no repair bills, because it does better work, because it does it easier.

The United States Separator is the closest skimming Separator made. It holds the World's Record made in fifty consecutive runs on milk from ten different breeds of cattle.

United States selling agents in every dairy section will allow free trial to any prospective purchaser. If you do not know the address of the local agent, write us for Catalogue No. 111 and your request will be promptly attended to.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

The New Iowa Dairy Cream Separators Get All the Cream.



The IOWA is just the machine you need to save all the cream in the large amount of milk you have at this time of the year. You should not defer buying a machine longer, for your loss in the next three months will go a long way towards paying for one of our low down, handy, close skimming cream separators. You will never get your dairying on a profitable basis until you purchase a cream separator.

Write us today, telling how many cows you have and ask for our free catalog and proposition which we will send you by return mail.

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HOW TO FEED COWS AND INCREASE THEIR MILK OUTPUT. Also how to save from 10% to 20% of feeding cost. This information is valuable to every farmer or stock raiser, and will be sent free for the asking. Write and send us a copy of the ration you are now feeding.

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Address all correspondence relative to the organization of new Clubs to Mrs. W. L. Cheney, Mason, 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 FARM GARDEN.

Paper read at the May meeting of the Summit Farmers' Club, of Jackson Co., by Mr. Mount, and reported for publication by the corresponding secretary:

In writing upon the subject assigned by the program committee it was not stated that I be limited to the vegetable garden. I think it would be better if I take the broader scope, and include the fruit and flower garden. I do not take up the subject from the view of the market gardener, but rather to discuss the subject relating to the family garden, which is worked more for the purpose of supplying the family table than for marketing.

When spring is here with its freshness and hope and all nature is putting on its new, fresh robe, and the robin, the bluebird and the bob-o'-link are twittering their spring welcoming song from the blossom-laden fruit tree, it is then that we are reminded that it is time to get out our hoe and rake and proceed to do the first planting in the garden. With all nature rejoicing and we in a cheerful mood, we plant with expectations of a fine crop. We plant generally with large expectations, weed with doubtful spirit and harvest oftentimes meager results, and sometimes only disappointment. With the garden newly plowed, the day bright and balmy, it is no unpleasant task to do the planting. Little do we think while putting in the seeds that there lurks in that clean, innocent looking soil the germs of thousands of weeds, and that for every seed we plant and bring to maturity, we must pull up and dig out an almost unlimited number of these pests, and not only do we have the weeds to contend with but also bugs and worms, so it is no play job, but a fight from start to finish. As weeds will grow, and grow persistently, the garden should be planted so that these pests can be exterminated with the least labor and time possible. Place and plant the garden, so that it can be cultivated mostly with the horse. It will take more land to be sure, but will not a garden large enough to be worked mostly with the horse, be more profitable than the small garden worked by hand? If you have more time than land, the small garden closely planted and worked by hand is best, but if you have more land than time the large garden worked with a horse is best.

Does the vegetable and fruit garden pay the farmer? This is a question upon which there appears to be some disagreement, judging from the attention and inattention that farm gardens receive. Is it profitable for the farmer with his many cares and much work to do in the spring and summer, to put much time and labor on the garden, just to get enough of the products to supply his own table? Would it not be better and cheaper for him to give his whole time to his regular farm work and buy what he wants of these products? Cannot the market gardener and small fruit grower produce these products in larger quantities cheaper than they can be produced in small quantities? It is not the purpose of this paper to settle these questions; it will only present a thot or so, and then leave the matter with you. While the professional gardener may produce these products more cheaply than they can be raised in the family garden, this is not all there is to be considered. There is the difficulty of getting these products just when you want them and even if you are situated so that you can get them handily from the grocery, I hope there are none here that are guilty of tormenting their palates with the stale, tasteless garden pro-

ducts of the corner grocery. The farmer feeds the world; and it is only just and right that the farmer should sit down to the first table.

What can be said regarding the flower garden; does it pay? We doubtless are agreed that from the money standpoint it does not pay. But let us look a little further. Everything cannot be measured by the dollar. Some of the sweetest experiences that come to your life and mine are not brot by the dollar, neither can they be measured by it. The little child in the yard gathers all she can of dandelions, butter-cups and daisys, and with sparkling eyes and glowing cheeks carries them to her mother saying, "pretty! pretty!" Has not the child had a much richer and sweeter enjoyment with those valueless flowers than she could have had had she been dressed in rich apparel. The child instinctively loves the flowers. The perceptibility of the beautiful is a part of our nature, it is one of the finer traits of our nature. It is one of the distinguishing traits, that lifts man above the brute creation, and do we not make a woeful mistake when we smother and kill the God-given faculty, just for the sake of having a few more dollars to jingle in our pockets? Is it not our duty to cherish and cultivate this finer trait of ours, so that we can enjoy to the full the beauties with which God has clothed this world? Someone has said, "He loves most who enjoys most." If this saying is true how shall we answer the question, "Does the flower garden pay?"

CLUB DISCUSSIONS.

Wastes on the Farm.—Twentieth Century Farmers' Club met in June with its president and secretary on June 6, after a month's vacation on account of sickness in the family of host and hostess. After the usual musical and literary numbers, which were well rendered, we discussed the question of "Wastes on the Farm," led by Robt. Tygh, who tho't the greatest waste poor fences or none at all, as this was the cause, either directly or indirectly, of most of the other wastes. He pointed out the loss of growing crops, the loss of time and energy in chasing stock, the loss of waste grain after harvest, if not able to utilize the afterfeed, etc. Other wastes were pointed out, such as loss of eggs, chickens, pigs, lambs and calves because of inattention to their wants. The loss of ground by leaving small patches to go to waste and the folly of leaving bunches of straw in the fields causing a loss of ground and the time necessary to cultivate around them, were also mentioned. The waste of having a fodder-strewn path from the stock to feeding yard as the feed was more valuable as feed than as manure, was commented upon. The waste of manure by leaving in yard the year around was emphasized. The waste in refusing to pay out money for needed labor, as labor should leave you at least one-third after paid for, which is much better than to leave it undone and lose all, was a point well made. The waste of strength in trying to do more than able, was a caution which should be heeded. The waste in the house by cooking too much and not utilizing the left overs, was bro't to the attention of the ladies. The waste in time looking for misplaced tools, the waste caused by leaving tools unsheltered and the waste of fruit left lying on the ground that might be saved, were mentioned. The waste of setting milk in pans instead of using a separator, the waste of feeding calves sour milk instead of sweet and the advice, if you had four cows to avoid waste by selling one of them and buying a separator with the proceeds, were given prominent mention. Following this discussion, club adjourned to meet the first Wednesday in July with Mrs. Dancer, when the subject for discussion will be "Success and Failures on the Farm and in the Home."—Jennie M. Ford, Reporter.

The Farm Garden.—The Summit Farmers' Club, of Jackson Co., was very pleasantly entertained at the home of Mr. and Mrs. John McDevitt, on May 27. The usual routine of the forenoon session was quickly dispatched and the club adjourned for dinner. As the president is a lively club worker he gave us no time for the usual after dinner chats, but called us to order at once with a song by the club. An excellent paper on the question of gardening was read by Mr. Mount, a synopsis of which appears in another column of this issue. In discussion, Mr. McDevitt said gardening is both profitable and healthy, and many vegetables are easily gotten ready for the table such as radishes and onions. Mr. Eddy gave his experience as follows: Gardening is a grand good thing; I have planted mine three times and the first and second plantings were destroyed by the cows and pigs respectively. If it does not grow this time I shall have to borrow from my neighbors.

Mrs. Ellison believes the garden is the best and most enjoyable part of the farm, not only the vegetables but the flower garden. Mrs. Beaman thinks everyone should have a garden. As proof of this she said: My garden is only thirty feet square but it furnishes my table and some of my neighbors. After the rendering of a fine literary and musical program the club adjourned to meet the third Saturday in June with Mr. and Mrs. Odell.—Mrs. John Gray, Club Reporter.

GRANGE

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

THE JUNE PROGRAMS.

Suggestions for Second Meeting.

"I believe all children's good, Ef they're only understood. Even bad ones, 'pears to me, 'S jest as good as they kin be."

Children's Day Program.—In charge of Flora of the Grange, who may make it a day of real joy to the little ones of the neighborhood, with refreshments at the close. Let the children furnish a program of recitations, dialogues, fancy drills, flower exercises and songs. For the older peoples' part, use the topic: "The Child—V. His School and Home Conditions."

OUR NEW GRANGES.

I.—What They Stand For.

Michigan has organized more Granges since the beginning of the fiscal Grange year than any other state. Let us see something of what this means by a sort of informal inventory of conditions.

First of all, it means that Granges have been organized in five counties that were previously entirely without Grange example and precept among their farming populations. This in itself is significant, for a "little leaven" works a deal of leavening if it is of the right sort. In other words, one thoroly alert, active Grange may cast the beams of Grange light over a wide circle of surrounding territory.

In each community where a Grange has been organized new forces are put in motion. The machinery with which to "do things" has been set up. In learning how to use this machine, it is true that new problems will arise; for "it must needs be that offences come" that the new order of things be established. This is always true in the life of organizations as of individuals. New occasions teach new duties and bring forth their attendant complications. However, no new Grange need be discouraged at this. Difficulties test endurance and, in the end, may prove to have been the real making of the Grange. The thing to do is to learn to do these new Grange duties by doing them in every instance as best we can. If met frankly and cheerfully we shall bend the organization for the good of all.

Let it be noted, in the second place, that this is primarily what a new Grange stands for—the good of all. Selfish interests should have no part in Grange combinations. Here we "learn to put down self and work for a cause." This often means the putting one side of strongly held notions and ideas in regard to many things. It does mean the rounding off of the jagged corners of our natures by contact with other jagged natures. Rugged opinions may clash but need not necessarily cause harm by the contact. The harm comes by being unyielding in non-essentials.

Whether we are new or old to the work, it is good for us often to recall that stern old doctrine which the Grange advocates, "In essentials, unity; in non-essentials, liberty; in all things, charity." It is a long road to master this principle, but he who has set forth on the road of organized effort has begun to walk therein.

JENNIE BUELL.

POMONA MEETINGS.

Lapeer County.

Lapeer Co. Pomona met with Burnside Grange on Thursday, June 3. Nine Granges responded to roll call. Sister Hattie Spencer was installed as secretary, after which the Grange voted to hold the usual August Rally at Lake Pleasant. Pomona accepted the invitation of Mayfield Grange for the October meeting.

Immediately after dinner the Pomona Lecturer conducted a lecturers' conference.

The address of welcome by the master of Burnside Grange was full of inspiration and hope. Prof. Jeffery, of M. A. C., talked on the subject, "The Farmer's Bank," meaning the soil. He claimed that by proper preparation and handling there is no need of commercial fertilizers, as there are sufficient minerals and gases in nature's storehouse to produce good crops thru several generations. These properties are only available thru the water supply, thus showing the wisdom and love of our Creator. We are kings indeed when we can draw checks that this bank will honor.

"Thoro Spraying of Fruit Trees" was ably discussed. The paper on "Moral Training," by Miss Stover, showed clear tho't and good judgment. Prof. Jeffery also gave a lecture on "Acres of Diamonds," comparing agricultural pursuits

to the gathering of diamonds, which requires patience and skill, for how true that "diamonds hide within the sand their starry edges."

Bro. Schlichter, in his subject, "The Farmer's Opportunity," held the Grange to be the ideal organization, as it affords so many and varied opportunities for education, not only literary but moral and scientific, but study of soil conditions and study of cost of producing the commodities we sell.

Representative Crampton, of Lapeer, was pleased to see that the Grange in Michigan is fortifying itself—getting into position to demand legislation favorable to its needs. "Life as it was and is," was most ably handled by Rev. Tarrant. Music by Burnside Grange choir, and instrumental music by Glenn Gibbons was worthy of special mention. Six of the young people of Burnside Grange were given the fifth degree.—Hattie Spencer, Secretary.

Mecosta County.

The meeting of Mecosta County Pomona with Fork, Thursday, June 3, was a great success. The visiting members were met at the station by the drill team and some of the officers of the local Grange, and escorted to the hall where a bountiful dinner was served.

After dinner the meeting was opened by Master Harter and the first number was a fine exhibit of first degree work. A paper, "How to Keep the Young People in the Grange," by Sister Closson, was most enthusiastically endorsed, and an interesting paper by Sister A. A. Horton, "Literature in the Home," which touched most completely the various purposes served by literature in the home and aroused an earnest discussion, led by Sister Merchant. Next came the address of the afternoon, "How to Better Conditions in Rural Life," by Mrs. F. D. Saunders. Mrs. Saunders is well known to the Patrons of Mecosta county, having been state lecturer for ten years. A round table on the subject, "Does it Pay to Beautify the Farm," followed and the meeting closed with a session in fifth degree.

AMONG THE LIVE GRANGES.

Special Meetings.—That the members of Grand Traverse Grange are thoroly alive is apparent from the number of special meetings planned for the immediate future. On Sunday, June 20, memorial services will be held by this Grange in memory of its departed members. Following the services the Patrons will repair to the cemetery and decorate the graves. Children's day will be Saturday, June 26. On that day the children will be given a feast at noon, which event will be followed by a program of recitations and songs by the little folks. The subject for discussion for the first meeting in July, to be held on the afternoon of July 3, will be "How to Celebrate the Fourth." At this time arguments in behalf of sane celebrations will be presented.

Benzie Co.'s New Grange.—Officers of the newly organized Grange at Benzonia were duly installed last week as follows. Master, W. J. Pettitt; overseer, F. B. Waters; lecturer, W. D. Carpenter; steward, John Betts; asst. steward, Herman Ehman; chaplain, H. M. Howard; treasurer, Frank Taylor; secretary, Nellie Howard; gatekeeper, Frank Bailey; L. A. S., Alice Pettitt. It was decided to hold regular meetings every two weeks on Tuesdays.

Grand Traverse District Grange.—The summer meeting of this organization, recently held in Grant Center Grange hall, will long be remembered because of the amount of initiatory work done. Five classes of candidates were instructed in more or less of the secret work of the order, and more than a dozen Patrons were given the ritualistic work of the fifth degree, that they might be duly prepared for the coming of the State Grange. The subordinate Granges represented at this meeting were Elk Lake, Silver Lake, Inland, Grand Traverse and Grant Center. Fifteen members from Grand Traverse subordinate were in attendance. The next district meeting will be held at Monroe Center, Sept. 1 and 2.

COMING EVENTS.

Pomona Meetings.

Kent Co., with Oakfield Grange, Wednesday, June 23. Miss Jennie Buell, State Speaker.
Ionia Co., with Berlin Center Grange, Thursday, June 24. Hon. J. K. Campbell, State Speaker.
Osceola Co., with LeRoy Grange, Friday, June 25.
Clinton Co., with Banner Grange, Wednesday, July 7.
Bay Co., at Pinconning, Tuesday, July 13.
Rosford Pomona (Roscommon Co.), at Roscommon, Saturday, July 31.
Chippewa Co., with Rosedale Grange, in July.

More Reservations Opened.

Next month 700,000 acres now included in the Flathead Indian Reservation in Montana, the Coeur d'Alene Reservation in Idaho, and the Spokane Reservation in Washington. While some of these lands have not yet been classified or appraised in value, but judging from the contiguous lands in the same locality they are equal to any in fertility and desirability. As these are practically the only Indian lands to be opened this year the opportunity is one not to be overlooked. All applications for registration must be sworn to at Missoula or Kalispel, Mont., Coeur d'Alene, Ida., or Spokane, Wash., for lands in the respective states and forwarded by ordinary mail to James W. Whitten, Supt. of the opening, Coeur d'Alene, Idaho, before Aug. 9, 1909. The Northern Pacific Ry., which traverses this section, has prepared a pamphlet on these lands, which will be mailed on application to A. M. Cleland, G. P. A., St. Paul, Minn.

ANSWER

To Dealers:

**Write for cat-
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Do it today.**

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Can be Hooked to Pump and Working in a Few Minutes

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