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FARM NOTES.

Late Summer Seeding of Clover.

Should the dry weather which has prevailed for so many weeks continue until after the harvest season, with only such relief as local showers may bring to favored sections, there will be many failures in getting a catch of clover upon Michigan farms, especially in spring grain where the nature of the soil or its lack of humus makes it more than ordinarily susceptible to damage from drought. This condition is one which makes the consideration of late summer seeding of clover particularly timely just now. The loss of a clover seeding is a serious matter, and such losses are becoming altogether too frequent upon the average farm. Such a loss not only means the shortening of the available hay and pasture for next season, but it means a greater, though less generally appreciated loss in the maintenance of soil fertility. Generally it means a further cropping of fields that are already sadly in need of renovation, which can be best and most cheaply effected through the medium of the clover crop, and a consequent further depletion of the available soil fertility in them. But probably a worse loss than this results from the further depletion of humus or vegetable matter in the soil, since the mechanical condition of the soil is an important factor in its fertility. Hence, in the event of the total or partial loss of a clover seeding in the grain crop, it is desirable to at least consider the advisability of the late seeding of clover to offset this loss if possible.

In this connection the first question to be decided is where this late seeding should be done. Obviously the most desirable place to do it is right in the fields where the seeding has failed, since this would the better maintain the regular crop rotation and afford a maximum of profit all around. If there are good rains which thoroughly wet up the soil after harvest the stubbles may be disked over or plowed and fitted, and the clover sown with a cover crop of some kind as early in August as conditions warrant, with a fair prospect of getting a successful seeding. Various methods are used to this end by farmers in different sections of the state. Some sow oats with the clover for a cover crop to protect it over winter. Others use buckwheat for the same purpose, and others sow rape with the same object in view. Still others sow the clover with a very thin seeding of rye, and all report success by the use of these various methods when the weather conditions are at all favorable. Compensation seems to be a law of nature in weather conditions as in other things, and when we have an early summer drought it is but reasonable to expect that we will have more than the usual amount of rain in the late summer. Of course this does not follow as a necessity, and even if we do get plenty of rain it may not be sufficiently evenly distributed to give the best results in the growing crops, as has been the case so far this summer, but the best we can do is to use our best judgment in summer seeding of clover, as well as in other problems of farm management. It would be folly to sow the seed when conditions were not favorable, but if it is to be done at all such opportunities as may come should not be neglected, as the moisture escapes from the soil quickly if it is not conserved by proper tillage, and the soil should be prepared by thorough tilling as soon as possible after a good rain comes if summer seeding is contemplated. Upon the degree of thoroughness with which this work

is done will depend in no small degree the success or failure of the venture, hence it will pay to do the work well, if at all, as a poor or indifferent job is likely to prove a waste of time and money. However, while summer seeding of clover is perhaps never a certain success, there are sufficient examples of success to make its trial profitable under fairly favorable conditions when reasonably efficient methods are employed.

But the conditions may be such that it is considered more desirable to try summer seeding in the standing corn than in the stubble fields. In this event the same good "horse" sense should be used in watching for favorable conditions and in doing the work in a manner which will afford the greatest possible chance of success. This method of seeding can never be called reliable, and

make it unnecessary to solve this problem in many cases, but a little thought given to the problem at this time will prove profitable if this should not prove to be the case.

Paris Green Versus Arsenate of Lead.

Which is the best, i. e., the most effectual and cheapest poison for potato bugs. Paris green or arsenate of lead?

Wayne Co.

SUBSCRIBER.

Arsenate of lead is rapidly gaining favor as an insecticide for destroying potato bugs, and if the application is made at the right time it is more satisfactory in some respects as well as somewhat cheaper than Paris green. Its advantage lies in the fact that it will stick on the leaves with sufficient tenacity to kill the beetles for a much longer time after the application than will Paris green. Then there is no danger of burning the foliage if a good

sprayer or barrel. If some of the lead in the bottom has not been mixed, add more water and repeat the operation. If, however, the spraying has been neglected until the bugs have trimmed the vines badly, Paris green will prove the more satisfactory poison, as it is quicker in its action than the arsenate of lead.

Pasturing Alfalfa.

I have a small piece of ground which I sowed to barley last spring and seeded to alfalfa and have got a good crop of barley and a dandy catch of alfalfa; it is a foot high on the average. Now I would like to ask you for some advice. Had I better turn the hogs in when the barley gets ripe or will that be injurious to the alfalfa? Would it be better to cut the barley and keep the hogs out this year?

Lapeer Co.

W. P.

All things considered, it would probably be better to cut this barley for grain and keep the hogs out of the alfalfa until next spring. Of course if the alfalfa should come on after harvest and make a rank growth, it might be pastured lightly without damage. But this is hardly apt to be the case. The plants have not yet become so deeply rooted that dry weather will not affect them, and under average summer conditions it would be better to allow them to make a good growth for winter protection. Of course, the weather conditions will materially affect this problem, and in case there are abundant rains the alfalfa could be pastured with less danger of injuring the stand than would be the case if somewhat droughty conditions should continue to prevail for some time after harvest. But it would not pay to take any chances on injuring the future value of this stand of alfalfa by close pasturing this season, since if the plants are allowed to become well established they will produce valuable forage for the hog pasture for many years.

Painting Roofs.

I have a lean-to roof on part of my house. This roof was shingled two years ago with good shingles, but in case of long or heavy rains such as we have had the past week it will leak. The shingles are cedar. Will it help this roof to paint it. Some tell me it will; others say it will do harm. I would like some one who has had the same experience to tell me what to do in this case.

Tuscola Co.

C. H. B.

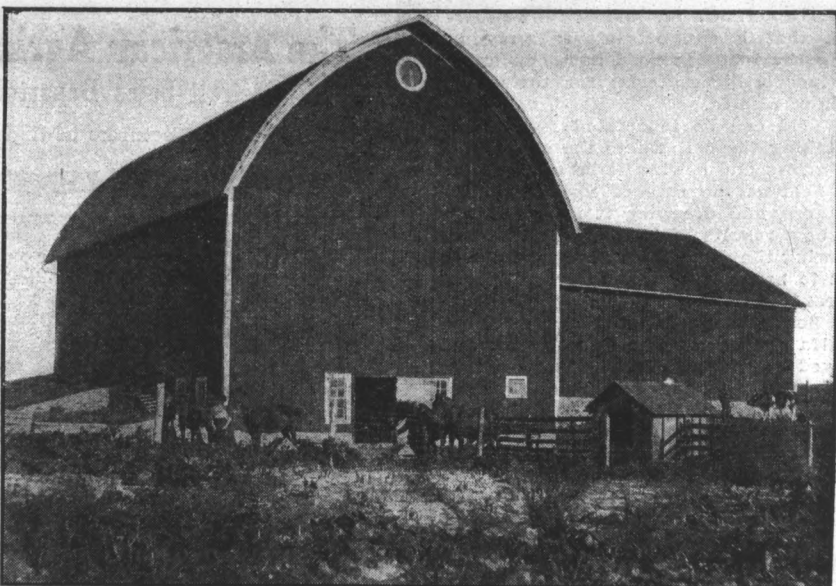
It is a very difficult matter to stop leaks in a rather flat roof by painting the shingles. If the leaks can be located they might be stopped by the use of tin shingles, but about the most satisfactory way of fixing a roof of this kind is to cover it with a good grade of prepared roofing.

LILLIE FARMSTEAD NOTES.

All the farmers are complaining about the dry weather. Many of them are scared and apprehend that their crops will be ruined. It is dry, unusually dry for so early in the season, and hot. Well, everybody knows how hot it is. The records of the weather bureau show that it is the hottest weather that we have had in fifteen years—that's enough. Personally, however, I do not fear dry weather as much as I do wet weather. The old saying is that dry weather will scare you, but wet weather will drown you. That agrees largely with my experience. This, however, is upon our kind of soil, which is rather heavy and holds moisture well. A very wet season or a very wet spell practically puts us out of commission, but if we are up with our work, with our cultivation, and have done things just right, we can stand a long spell of dry weather without serious loss on all cultivated crops. Our pasture is, of course, dry. I have been examining the corn lately. The leaves do not roll except on the very hardest clay places that



House and Main Barn on the Farm of G. E. Wilson, of Isabella Co., Mich.



still the writer has seen some very good seedings indeed secured in this way. Undoubtedly this is worth a trial where this method of seeding may be made to supply the deficiency in available hay or pasture for the coming season if the conditions should seem to favor the method, and the seeding of the corn fields will not interfere too much with the regular crop rotation. In any event, if summer seeding is contemplated, the seed should be at hand, and we should be watchful in order to make the most of favorable opportunities to do this work. Of course, timely rains may

grade of lead is used. It can be used as strong as necessary to do the work. The usual rate of application is eight pounds of the lead to 100 gallons of water. If the plants are thoroughly sprayed with this mixture when the eggs first hatch, the poison will remain on the leaves until most of the young beetles are hatched and killed. In mixing the required amount of the paste, in which form this poison usually comes, should be weighed out and mixed with a gallon or so of water in a pail by thoroughly stirring. Then pour off slowly through a strainer into the

were too wet earlier in the season. If we had not had too much moisture the last of May and first of June, crops would not suffer on these places now, but they were so wet that we could not properly till. Then it came off so dry and hot that the clay ground baked, consequently the corn is suffering. This is exactly the same condition in my beet field. The beets on the clay places do not grow at all, but I am not totally discouraged about this, because I believe that when rain does come, as it must some time, these beets will then grow rapidly.

Our corn was all well cultivated early and the ensilage corn, which is put in in drills, after it had been cultivated, was gone over with the weeder, and there is a fine earth mulch over the entire acreage of 65 acres, and the corn is growing nicely. Just an inch or so of the earth on top is dry and then you have nice moist earth. Now, in a way, this is a great benefit to us, this dry weather, because it is not necessary to cultivate the corn now. This earth mulch prevents the evaporation of moisture, and the corn is doing well, while if we have a shower every day or two, the corn ought to be cultivated after every shower. This has given us time to do our haying. We cut, raked up and put in cocks the entire acreage of hay, about 38 acres, and we have it practically all hauled in, stored without being wet a particle, today, July 9th. That is early for us. We cut our clover nearer the right stage of development this year, that is the whole of it, I think, than we ever did before, but we didn't cut it quite early enough this year. We couldn't get to it. But we will get our entire hay crop of over 100 loads in without any of it being wet. In fact, it hasn't rained since we began haying. And now while we have had all the force practically in the hay field and doing other work, and haven't had a chance to cultivate, neither the corn or potatoes or beets have suffered from not being cultivated, simply because it hasn't rained during that time and we had a fine earth mulch which has preserved the moisture.

This year I followed Brother Woodman's advice and planted small potatoes for seed. We sorted out the potatoes about the size of a hen's egg and above that would go through the hand planter, marked the ground both ways 30 inches apart and planted one whole potato in a hill. I have the best stand of potatoes I think that I ever had. There is only occasionally a missing hill. That was where the potato had started to decay and did not have vitality enough to sprout, and the men who planted were not careful enough in the selection of the seed. They look healthy and fine. We got a chance to harrow the field both ways with a spike tooth harrow before the potatoes came up. There are no weeds, there is a fine earth mulch and they are doing fine.

While I haven't a splendid crop of wheat this year, because I did not put it in early enough last fall, I have a fair crop. It was all my mistake. I had the ground ready and could have sowed the wheat before Sept. 15, but it was hot and dry and I waited for a rain. It came; I put in the wheat, and after that for the entire fall it was cold and the wheat did not develop as it should. I have held off before for the rain to come and then had splendid results, but it was warm weather afterward. I used my best judgment based on past experience, but I made a mistake. But by using his best judgment in emergencies of this kind one will succeed better in the long run than by following a set rule.

COLON C. LILLIE.

HANDLING GRAIN CROPS.

The progress in methods of handling the grain crops, from the cradle and rake, hand stacking and flailing, to the modern binder for cutting, slings for handling, and large capacity threshers carrying their own crew for threshing the grain, which has taken place in little more than a generation, seems to be more rapid than in most other lines of farming. Still there are many farmers who have not made use of the conveniences now on the market for handling the grain crops. This may be due to a lack of barn space in some cases, but in others it is due to negligence or to a lack of knowledge of the labor that can be saved by these devices.

Grain farming in Michigan now presupposes that the farmer has ample barn storage. The saving in waste and in labor over stacking outside will pay the interest on the cost of a barn if much grain and hay are grown, to say nothing

about the shelter for stock, tools, etc. The barn should also have a track in the ridge for the car which carries the slings. This should be put in when the barn is being built, before the roof is enclosed, as it can be done more conveniently at this time, however a track can be placed in an old barn quite easily, and the best time is while the barn is filled with hay and grain. If it has an old style frame with timbers in the way a little remodeling will usually allow of using the track. In a few cases it may be necessary to hang it beneath cross beams some distance below the roof, but all barns are now built with the track in view.

If the track can not be used the barn can at least be roped for the hay fork, but slings are far ahead of the fork, for, in addition to hay they will unload wheat, oats, straw, corn fodder, beans, or any coarse material, and take it clean and in fewer drafts. There is no pulling to loosen the sling load from the rest of the load as with the fork, and the sling load spreads out better on the mow and is more easily stowed away. There is less danger with slings also, as we seldom hear of accidents happening in using them, while the opposite is the case with the horse fork. Only last week a neighbor got both points of a horse fork run through his back.

In handling hay with the horse fork the draw is from the center and the edges double under unless the drop is far enough for gravity to straighten them out by the more heavy center falling faster, while with the slings the edges roll up and when the load is released they fall back flat on the mow just as they lay on the load. This is true as long as a load can be drawn into the mow, while with the fork hay is badly twisted and rolled together in filling the upper part of the mow.

The operation of the slings is not difficult or hard to understand. We use four sets to a large load, sometimes three if the material is light. With our low down wagon the bottom one is laid directly on the platform. With an ordinary rack it is best to put on a few forkfuls of hay to lay the lower sling on. The rest are hung on the standard in such a way that they can be easily spread over the load in loading. We put two layers of bundles between each set of slings, which makes the load eight layers high. If a little care is used in loading, making the load rather narrow if the bundles are short, every draft will be taken up clean.

Calhoun Co.

S. B. H.

ALFALFA INOCULATION.

In many parts of central Michigan, I have seen sweet clover growing wild by the roadside. From its dark green color and rank growth, I concluded that the nitrogen gathering bacteria were working in abundance upon its roots. This bacteria working upon the sweet clover roots is the same as that which works upon alfalfa, and the neighborhood that has sweet clover growing along the roadside need not send away for inoculating material for their new fields of alfalfa.

A field can be inoculated for alfalfa by taking the soil where the sweet clover grows and sowing it broadcast over the field at the rate of about 200 lbs. per acre, and dragging it in. I believe the best results will be obtained by not allowing the earth from the sweet clover plot to become dry and to drag it in at once.

A field that needs building up for the alfalfa can be sown to sweet clover and plowed down for alfalfa. Sweet clover seed carries much of its bacteria with itself, but the field should be inoculated for the sweet clover, then when plowed down it will be thoroughly inoculated for the alfalfa. Sweet clover makes a rank growth of stem and leaf and root as well as inoculating the field for alfalfa, and, therefore, does a double service.

Sweet clover in a bi-annual; that is, when it ripens its seed the second year, the plant dies root and all. If one plows down the field before any seed ripens there will be no more sweet clover. I believe the field should be limed when sown to the sweet clover, and then a top dressing of a good grade of commercial fertilizer should be given the alfalfa and success will be assured.

All that is necessary to kill the sweet clover growing along our roadsides is to see that no seeds ripen. Mow the plants ripening seeds this year, then there will be the small plants growing from seeds ripened last year to be mown next year to prevent their ripening seeds, and the job will be done.

Ogemaw Co.

H. B. FULLER.

wheat

is a crop of all nations. The cultivation of wheat antedates history. In China wheat was grown 2700 years before the Christian Era, and was considered a direct gift from Heaven. It was cultivated as early as the Stone Age in Switzerland. One-third of the wheat crop of the world is produced in the United States. With good

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there is less chance or risk in growing wheat than almost any other crop. From the time it is sown, a field of wheat is considered a good asset and ample security for a loan, because the crop seldom fails. The time is in sight when the U. S. must use all her wheat crop at home. The demand for wheat to feed the growing population is immense. Wheat is just as good as gold when threshed, but you cannot find gold without digging for it. The farmer should strive to get out of the earth all it can produce. The best farmers work their soil to its fullest productive capacity, because that is the only way to succeed. There is no danger of working the land to death; on the contrary, by using our Fertilizers with the proper cultivation and rotation of crops, intensive farming is conducive to improving the physical condition of the soil and maintaining its fertility.

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LIVE STOCK

THE STALLION DURING HIS IDLE SEASON.

The breeding season is over and it is now time to begin to prepare the stallion for a bigger and more successful season next year. With that in view, the owner of a stallion should aim to bring his horse up to the next breeding season in the strongest, healthiest and most vigorous condition possible.

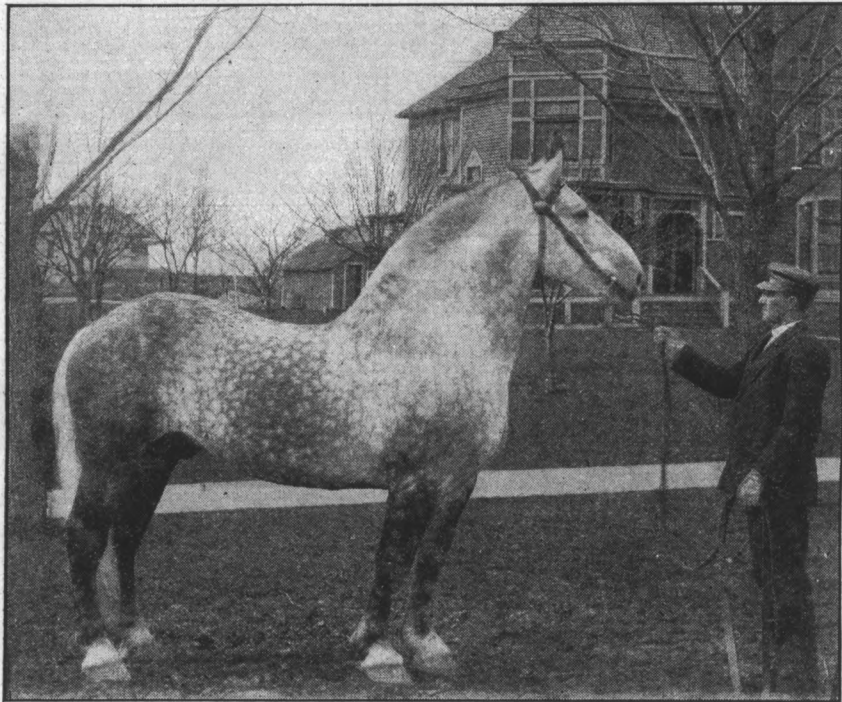
The writer is frank to confess that he does not at present own a stallion, but he has spent considerable time among stallions and in importing stables in nearly every state in the corn belt. The past season he has been working in a breeding stable where there are two or three horses that are such good examples of what not to do with them that he feels somewhat competent to write upon this subject.

Just about half the stallions are practically worthless after they are six or seven years old, and after they have had only two or three years in the stud at best. Certainly no one can afford to pay \$2,000 or more for an imported horse and get but a few years of service out of him. The natural life of a horse is twenty years or more. A stallion ought to remain virile almost to the end of his natural life. Other animals do, any anyone can recall instances of stal-

Last fall, at the International, when the champion Belgian stallion was sold, the purchaser said, "He is 150 pounds too fat. We will put him to work on our feed wagon at once and get him may be in a knocking mood today, but be that as it may, it is his firm belief that failure to receive exercise is the cause of more injury to stallions than all others combined. Does it seem reasonable that the big, masculine, virile, energetic 2,000-pound, living engine of a horse should be cooped up in a small cage and left to mould? Just as fruit or vegetables mould when not properly cared for, does the nervous system of a horse seem to mould when so cared for. Doesn't it seem as though those big, bulging muscles ought to be drawing the heaviest loads upon the farm? Instead of measuring the size of the limbs with a tape, wouldn't it be better to give them an actual test for strength and endurance by putting the horse to a work suited to his size? Instead of into shape for the coming season." The best breeder the writer ever knew was worked every day on the streets of a small town.

One big trouble seems to be that men regard a stallion very much as a wild beast. This is altogether wrong. The sooner that men come to regard him much the same as a gelding, to be handled firmly, yet without abuse, the better it will be for both horse and man.

Sometimes, of course, it is not convenient to work the horse. Then by



A Percheron Stallion of Good Type Owned by W. A. Martin, of Sanilac Co.

lions that were successful sires at a considerably advanced age.

The essential factors in caring for the stallion out of season, or during the season, for that matter, are feeding, watering, exercising, stabling and grooming. Most stallions have had at least fairly good care during the season. It is at the close of the season, when the man who has been handling the horse is turned off or is put to other work, that the stallion is apt to be most neglected.

In the matter of feeding at this time, common sense will suggest several changes. The first of all is a big reduction in the amount of feed. The food required for a comparatively idle horse will be only about half what it was when he was doing heavy service. Then the feed ought to be of a lighter nature, more bran and less corn, more oats and no oil meal or other heavy concentrate. The amount of hay will need attention also. Of course, no one will feed hay that is bad in any respect, but any ordinarily generous-hearted fellow is likely to feed too much hay. A horse that is of a disposition that is at all active will eat hay just to be doing something, if it is before him. Too much hay injures the digestive system, crowds the lungs, heart and other vital organs and reduces the general tone of the horse. For those reasons the hay needs to be considerably limited in quantity. As for watering one can only repeat what every one knows about it. That is to give plenty of fresh, clean water frequently.

The writer may be a "knocker" or discussing whether the small hogs on some horses are injurious or whether others have curby hocks or not, wouldn't it be better to have the stallion on the grain wagon that is hauling the threshed grain from the threshing machine to the granary?

all means give him a big lot, or better still, a pasture to run in. If the pasture is somewhat rough and rugged, so much the better.

In the matter of stabling, the stallions as a rule have box stalls, which are roomy and are usually kept well cleaned, and in most cases are sufficiently lighted. All this is well and good. The most serious error in stabling is in isolation. A man will go crazy when he is cut off from all human society. So will a horse when he is shut in some out-of-the way place. Of course no one speaks of the horse becoming insane, but after one or two years in such a place they invariably speak of him as an ugly old beast that can best be handled if one does not go inside the stall. The stallion ought to have his box stall in the barn with the farm horses where he can see them. He will not be a nuisance, but will be quiet and orderly and a much better horse for being so treated.

Under the head of grooming, we will include cleaving the body, cleaning the leg feather and caring for the feet. Not many stallions are suffering from lack of having their coats cleaned, but few give proper attention to caring for the legs of those breeds that grow some feather. The main trouble in that regard seems to be that we Yankees were raised among clean-legged horses. However, it is usually an easy matter with most horses to prevent scratches. Brushing with a stiff brush to keep the long hair thoroughly clean will suffice in some cases. With others that tend to gumminess, an application of coal oil and this rubbed out of the hair with clean sawdust will keep them in a healthy condition. If scratches are started, the application of lard and



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sulphur, after thorough cleansing, will usually stop the trouble.

The feet need to be kept clean and free from stall filth to prevent thrush and on general principles of cleanliness. Whenever the feet tend to become hard and brittle, they should be packed with wet clay. Shoes should be reset frequently. Whenever the heel of the foot tends to contract, have just a clip across the toe and about half way back. This will allow the heel to spread to its natural width.

There is another phase upon which many stallion owners are somewhat neglectful; that is in showing at the county fair. Just as a matter of interest in improved live stock every stallion ought to be shown. It is always an advertisement for any horse, whether he wins or not, to have the farmers of the county see him.

For showing at a county fair the horse need not be excessively fat, just in good thrifty condition. The tail should be done up in some form of a neat knot when taken to the ring. If a roll can be put in the mane, so much the better, but this is not necessary. Above all, have him clean. If he is a Shire or Clyde, be particular to have his leg feather in first-class condition. Be sure before fair time that he knows enough, with an intelligent man holding the lead rein, to stand squarely and to be quiet. With these few simple directions any good horse will make a showing that will do both himself and his owner credit, whether he gets a ribbon or not.

Iowa. H. E. McCARTNEY.

HAULING HOGS IN HOT WEATHER.

Too bad to see high-priced hogs die from over-heat while being hauled in hot weather. Men who have hogs to market during hot summer months should make preparations for the business in due time. A hog will get hot and die before you hardly think about it.

There is, however, a reasonably safe way, and there is also an unsafe way of hauling them. One day last summer I was going to town and met a neighbor on the way to market a large fat hog. He was just about half way to town and the hog had got too hot and died before he hardly realized it was suffering. It was late in the afternoon, too, but the day was very hot, the hog was very fat, and the jolting of the wagon made him get too hot. The hog was just lying in the wagon bed without anything about him to keep him cool. The hog was engaged to the buyer on foot, and consequently was not sold when he died. Buyer was very sorry, of course, but could not handle it, and it was the last hog the farmer had. It was about night when the hog died, and the man was away from home. What was to be done about it? he asked. I could advise nothing better than to take it back home and render it up for soap making, which was not quite a total loss, but nearly so. He went back home, and I suppose did that, but there remains the loss.

Now, I will give the plan I adopted some years ago for hauling hogs in hot weather. I advised this man to try it the next time he started to haul any. First, take a wagon with a good tight bed and place an inch or two of dirt in the bottom of the bed and pour water on the dirt until you have a mud. Have the water cool, do not have the hogs worried any more than possible when placed in the wagon. Better to have a solid floor with about six inch sides and the balance of the body made of slats. Have the top of rack high enough so they can stand up straight when they so desire. In hauling, drive slowly, as the jolting of the wagon is very hard on them and causes them to worry.

These are points which are well worth considering. It is folly to raise hogs, feed them high-priced feeds, get them in good shape, and then let them die on their way to market. Sometimes, however, men must have an experience themselves before they will realize it as the truth. But be on the lookout, for you may have some dead hogs before you know it.

Another thing can be added that will help. That is a set of good bolster springs under the wagon bed. In fact, no farmer should use a wagon without good springs, and especially are they valuable in hauling live stock and perishable vegetables and fruits.

Illinois. R. B. RUSHING.

On July 1, Chicago warehouses held 91,034,712 lbs. of provisions, compared with 74,866,837 lbs. a month earlier and 123,182,072 lbs. a year ago. The increasing percentage of heavy hogs marketed help packers to increase their holdings of lard and heavy meats.

HANDLING THE FLOCK AFTER THE LAMBS ARE WEANED.

When my lambs are taken away from the ewes, the latter are always put in rather scanty pasture or given the run of a stubble field for a short time, so as to dry up their flow of milk as quickly as possible. Of course, the ewes, if they have done well with their lambs, will be rather thin by this time, but my experience is that it is not safe to feed them much grain until they are dried up.

When the lambs have just been weaned they require the best possible care and need good pasture. Also, I always find it best to separate the ewe and ram lambs. When allowed the run of the same pasture the ram lambs will annoy the ewes and gains will be unsatisfactory. The wether and ewe lambs in my flock are usually allowed to run together.

In the care of the breeding ewes during the late summer and fall it is very important to make provisions for some kind of green fodder to supplement the pastures. The condition of the ewes at breeding time has a marked influence upon the succeeding crop of lambs. If the ewes are improving in flesh and in a vigorous condition, the chances are bright for a choice lot of strong lambs. I have found it much easier to get the ewes in the proper condition during the early fall months than at any time later, and it is also true that when once in that condition they are in better shape to go through the winter and withstand the attacks of disease common to sheep, than when allowed to go into winter quarters in a run down condition.

There appears to be some complaint about getting the ewes with lamb when they are allowed the run of a clover pasture, and therefore many think it best to cut and cure the clover for the lambs and provide other pasturage or soiling crops for the breeding ewes. Whether the clover has anything to do with keeping the ewes from getting with lamb, the practice is very good any way, for I have found nothing to be better for the lambs than an ample supply of good, well-cured clover hay.

My lambs that are to be retained for breeding purposes are not fed much corn, as corn tends to fatten them, rather than to give them the desired growth and development for breeding purposes. In feeding lambs, or in fact any young animal, I have found it more practical, and productive of better results, to feed them two or three times a day and in small amounts at a time than to allow them all they will eat at any one time. Bran, oats and oil-meal fed in equal parts by weight I find in most cases make a better ration and is more satisfactory to supply the needs of growth and development for breeding purposes, than most anything else.

Thirty-six pounds of sheep-manure is equal as a fertilizer to 100 pounds of ordinary farm-yard manure, being richer in nitrogenous substances than that of the cow or horse, and ranking in ammonia and richer in the phosphates than the droppings of fowl. Then why will farmers neglect to always keep a few sheep? Sheep also are very powerful digesters, destroying the vitality of all weed-seed, not like cattle—scattering foul seed behind them, while from the food eaten they get more nutriment than any of our other animals. Should not every man with fifty or more acres of land keep some sheep?

A good many farmers who have cows are now aware of what a splendid investment of time and money it would have been had they sown a plot of ground to peas and oats last spring to supplement the pasture that is now getting parched by the extended drought.

Charles Gray, the secretary of the American Aberdeen-Angus Breeders' Association, says that during a recent trip through Iowa and west of the Missouri river he found a general awakening of interest in breeding cattle, and men who last year would not buy breeders were keen buyers of bulls now. Mr. Gray was impressed with the fact that the prices paid in the recent sale were close to 100 per cent higher than last year. In that sale there were 114 head of cattle auctioned off at an average of upward of \$200 per head. Mr. Gray says: "Keen demand for breeding bulls is always the first intimation of bigger breeding operations throughout the country, and I believe that the breeding industry is on the threshold of an era of old-time prosperity. Conditions in the west at least point in this direction, and here in Illinois, too, and eastern states, recent developments have been favorable."

Cattlemen engaged in feeding stock have been watching weather conditions closely, realizing that a much longer continuance of the long spell of dry weather would force them to market their partly fattened stock prematurely and sacrifice

their own interests thereby. Packers could take care of all the cattle likely to be marketed and fill their enormous cold storage warehouses, but they would do this only by forcing big reductions in prices, and cattlemen would suffer accordingly. However, it must be said that the packers desire a normal supply of good beef far more than a glut of short weight grass-fed cattle temporarily, with a corresponding beef famine at a later period. Naturally, the dry weather has had a powerful influence in shortening the country demand for feeder cattle, and within a short time thin feeding steers have been bought at the Chicago stock yards at \$5 per 100 lbs. that would have brought \$1 more in May. With every prospect of a glutted grass cattle market before long, prospective cattle feeders in sections where grass is abundant have been canceling orders to buy cattle.

David Gregory, of Indiana, says that state is raising more sheep than ever before and has a big pig crop. Horse raising is also carried on extensively, but less than it should be. Sheep pay handsomely, and a sheepman near Hartford who paid \$1,000 for a flock of feeding lambs fed them, clipped them, and returned them to the Chicago market, receiving \$2,200 for them. He says the wool which he still owns will pay their feed bill, and he expects to double his money. Mr. Gregory makes the prediction that wool will sell around 25 cents per pound by the time there is a free movement marketward. Extremely severe weather was experienced up to lambing time, and the lambs will be late in going to market.

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HOW TO TEST CREAM.

Some little discussion has arisen here concerning the testing of butter-fat in cream, and I would be greatly pleased if you would tell me which tester you consider the standard and best to use in testing cream from a small number of cows.
 Allegan Co. W. H. D.
 The only machine used in testing cream is an ordinary Babcock tester. Of course, there are different Babcock testers because they are made by different concerns, but they all involve the use of centrifugal force. Formerly we tried to test cream by taking a sample with a pipette the same as you would in taking a sample of milk, but you cannot take a very accurate sample of cream with a pipette, on account of its consistency. It is too thick to run out of the pipette well. Consequently that idea now is entirely done away with and nobody attempts to test cream real accurately unless they weigh the sample to be tested. A sample of eighteen grams of cream is weighed with a delicate pair of balances and then it is put into a test bottle and tested on the same principle as you test milk. We also have now special test bottles for testing cream, one with the neck of large calibre and finely graduated so that you can read as high as 50 per cent of butter-fat in cream. In the ordinary milk bottle, of course, the neck would not be large enough to contain all of the butter-fat in eighteen grams of cream, hence the larger bottle. Of course, if one is careful in taking a sample of cream with a pipette when the cream is warm and fresh, he can get within a reasonable fraction of the actual test of cream, but you should have a small pair of balances and weigh the sample. Then any ordinary Babcock tester which you can purchase of any reliable dealer would answer your purpose.

RAISING CALVES BY HAND.

Of all the calves raised in the country, it is safe to assert that 80 per cent of them are fed instead of being allowed to run with the mothers. Among dairymen it is the universal practice to raise calves by hand. To allow calves to run with the mother is to not only spoil the cow as a heavy milker, but it injures the possibilities of the heifer calf in making a heavy milker when matured.

We sometimes forget that the dairy cow is an artificial product, and she has been made so by fixing the habits of the system while young. If the heifer calf were to be fed on new milk during the first six months of its life, and allowed to fatten up to look like a calf of the beef breed, the habits of the system would be so fixed that the preinclination of the calf would be largely toward beef production. For this reason we are ready to say that it is far better to raise the heifer calves of the dairy breeds by hand.

When the calf first arrives it is a good plan to let it have the new milk right from the mother for a few days. One can do the way they prefer—milk the cow and feed the calf from the first, or let it take the milk from the cow until the milk is considered good enough to save for use. I have practiced taking the calf away at once for the good of the cow, as she worries less than when the calf is either with her or let to her a few days.

By the time the calf is from ten days to two weeks old, one can begin to substitute skim milk for a part of the new milk given it. Here comes in an opportunity to do some careful and accurate figuring. As fast as the new milk is withdrawn, some other feed should be added to take the place of the cream that is taken from the new milk.

We will assume that 4 per cent milk is about the average kind of milk the cows will produce. Then we must calculate that from every 100 pounds of milk there is taken away 14 pounds of butter-fat that must be supplied by other feed. In feeding 25 pounds or 12½ quarts, we must represent a pound of butter-fat, and as it takes two pounds of grain, such as oatmeal and oil meal mixed, to equal one pound of fat, we must calculate accordingly.

When a calf is eating half skim milk, and is taking a little more than three quarts of milk twice per day, a half pound of the scalded or cooked oat and oil meal will be required to equal the

new milk. Then, when the calf is taking all skim milk, and a little more than six quarts per day, it will require a full pound per day of the grain feed cooked. When the calf gets to be five or six weeks of age and takes from eight to nine quarts per day, it will take a pound and a half of the grain mixture.

It is always best to be cautious and not over-feed, either in quantity of grain or milk used. The majority of cases of diarrhea are brought on by over-feeding the stomach with either milk or grain when young. Better feed a little less of both milk and grain and keep the calf healthy and thriving all the time until old enough to wean.

Feeding Hay.

By the time a calf is a week or ten days old, it will begin to eat some hay of some kind, it should then be supplied with green cut hay of clover, timothy or June grass. As soon as it begins to eat hay it will begin to chew its cud. As calves are ruminants, supply the forage to meet their natural requirements, as they will not do well without it.

When one is selling all the milk, and desires to raise calves, they can boil up clover or alfalfa hay, and make tea to take the place of the milk. By substituting the tea for a part of the milk ration at a time the calves can be gradually worked on to the hay tea and grain ration, and will do as well as with the skim milk. One advantage with the hay tea is, the calves are less liable to get the scours than they are with the skim milk.

Another feature in calf raising I desire to emphasize: Calves kept in a shed or stable while young, and fed dry hay, will do much better than when turned to grass. Eating wet grass in the morning or after a rain is likely to produce scours and cause a check in growth.
 N. A. CLAPP.

MIXING OAT STRAW WITH BEET TOPS.

I intend to put up a concrete silo to hold beet tops. We purpose making it 12 ft. in diameter and 35 ft. high. How much oat straw would you put in with the tops, and should the straw be cut? We will have from 15 to 20 acres of tops to put in the silo. As we would only be hauling beets with one team, we would have to put the tops in at different times as the first ones would be spoiled before we could get all the beets hauled. Would that make any difference with their keeping in the silo?

Sanilac Co.

J. L. D.

A silo 12 ft. in diameter and 35 ft. high will be none too large to hold the beet tops from 15 to 20 acres if you have a good crop of beets. I built one last year 12 ft. in diameter and 18 ft. high for ten acres and we could not get the tops all in. Of course, 35 ft. high will double the capacity and may possibly hold the tops and give you sufficient capacity to put in what oat straw you want.

Now as to the amount of oat straw. This is a question, of course, that I have not had experience enough to warrant me in saying anything absolute about the proposition. Last fall, in the first place, we put in the oat straw about a foot deep. This was just nicely packed in by leveling it off. Then we put in beet tops about a foot thick and then put on another layer of oat straw and so on until we found that our silo was not large enough to hold the beet tops and then we used less oat straw and finally did not use any toward the top. On feeding out the beet top ensilage we found out that the oat straw in the bottom was all eaten, every particle of it, and the foot of straw which we placed in the bottom was pressed into a very thin layer. Consequently I would say that you could put in twice the depth of straw that you did of beets because the oat straw will pack down so much when the beet tops are put on.

I do not think that it will do to fill the silo with beet tops very slowly because they will heat up and some of them spoil on top. If I was hauling beets with only one team, I would not haul the beet tops as fast as I hauled the beets but would leave them in small piles about the size of a bushel basket and wait until I had the beets hauled before I commenced to fill the silo with the beet tops. Then I would make a business of it and haul them in as fast as I could with the one team. I had a little experience along this line last season. We filled the silo full and after it settled some we put on more beet tops. Now, while we left the tops to settle they got hot on top and spoiled there, while if we had continued filling right along, they would have only spoiled on top. I think you may expect at least a foot of the beet tops on top to spoil.

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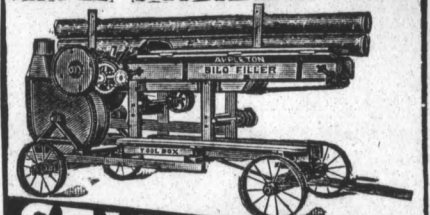
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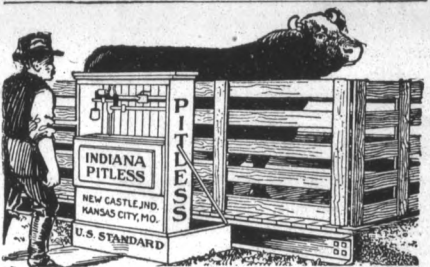
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Anemia or Impoverished Blood.

My hens are all dying. They begin ailing by going lame. They then seem to get into a sort of dazed condition and lie about in the shade. Seemingly they are very weak although they continue to eat and drink. Their legs become bloodless and their heads very white. At first I thought it was cholera but their droppings are not watery and yellow as in cholera. The last day or two before death they are not inclined to move at all unless disturbed and their eyes swell and become discolored. Only the hens are affected. Oakland Co. E. V.

Your fowls have the symptoms which go with anemia or general impoverishment of the blood. The lameness would seem to indicate that they also suffer from a form of liver trouble which is rather common among hens at the close of a season of heavy laying, especially if they have been rather closely confined and liberally fed on foods containing an excessive amount of starch, such as corn. Long continued heavy feeding, under such conditions, of a starchy grain ration, with no effort made to balance it with regular allowances of meat scrap or cut bone, seems to undermine the constitution of the fowl. The hens finish the season fat and sluggish, and lameness, generally on one side only, soon develops. Even at this stage, plenty of green food to the exclusion of all grain, free range and a good tonic will sometimes prevent losses.

In this instance the hens appear to be generally run down. Make sure that their evident lack of vitality is not due to external parasites. If such pests are found, either upon the bodies of the hens or in their roosting place, they must be gotten rid of as promptly as possible. A good tonic may be made from 10 drops tincture of chloride of iron mixed with a teaspoonful of glycerine and added to a pint of water, this quantity being sufficient for 20 hens. If preferred, that standard tonic which most poultrymen know as Douglass' mixture may be substituted. It consists of 1 lb. sulphate of iron dissolved in 2 gals. of water, to which is added 2 ozs. of sulphuric acid. An ounce of this preparation is put into a quart of the fowls' drinking water, giving it not oftener than twice a week. Give wholesome, nutritious food but feed very little grain for a time. Make an effort to induce the hens to exercise, either by giving a portion of their food in litter or by spading up a portion of their run. A postmortem examination should show whether the trouble had its beginning in the liver.

Chickens for Early Market.

What chicken is the best to raise in the spring for early market and what is the right kind of feed for them after they are six weeks old? Also what kind of white chickens are best for market in the fall? Hillsdale Co. A READER.

When growing fowls expressly for market, many poultrymen prefer cross-breeds. For instance, many find that crossing a White Wyandotte on a Light Brahma hen produces a chick which, for broiler raising, is unsurpassed, this cross giving good size and more rapid development than can be secured in the pure-bred specimens of either of these breeds. Others hold that still more rapid development may be had from a cross of the White Leghorn on the White Wyandotte, while others who make broiler raising a specialty get good results from crossing the Brown Leghorn on the Barred Rock. The Leghorn-Rhode Island Red cross has also proven a good one as a producer of rapid-growing and quick-maturing market fowls. As rapid, symmetrical development is the greatest essential in successful broiler raising, it may be safely assumed that the breeds, or combination of breeds, which yield this desirable result are worthy of the attention of the poultryman who desires to supply the market with well developed chickens instead of broilers. It is as difficult to name the best breed of fowls as it is to name the best breed of hogs on sheep, or the best make of corn planter or cream separator, but there is no doubt that for early market fowls one can not do better than to select one of the crosses named above, providing he has the foundation stock for making such a cross. If not, we suggest using pure-breeds of one of the so-called general-purpose breeds—Rocks, Wyandottes, Rhode Island Reds or Orpingtons.

Just a word of caution, however, regarding the raising of cross-bred fowls, whether for market or for the production of eggs. It is a generally conceded fact that, judging from the standpoint of util-

ity, a first cross is superior to a pure-bred, and this holds true not only in poultry but among other branches of live stock as well. However, it must not be forgotten that this superiority ends with the first cross. Therefore, if cross-bred fowls are bred for market purposes the poultryman should see to it that they all go to market. Under no circumstances should any of them be held for breeding as the second cross will show wide variations in both size and color and from that point to hopeless mongrelization the road is short.

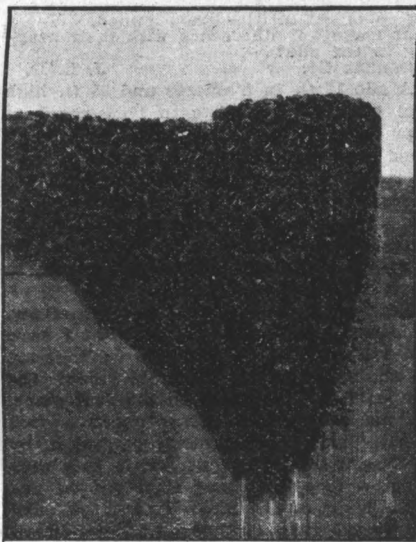
After the chicks have reached the age of six weeks, if it is desired to finish them for market before they have reached maturity the proportion of starchy foods in the ration should be gradually increased and the growth-inducing or muscle-making foods, such as hard-boiled egg, meat scrap, cut bone and skim-milk, diminished. For a time ground oats, with the hulls sifted out, may constitute the bulk of the grain ration. Corn meal may be added gradually and may be used quite largely during the last few weeks of feeding. Continue a liberal allowance of green stuff without giving the chickens more exercise than is required to keep up an appetite.

As a general proposition, the heavy breeds should prove most satisfactory for fall marketing as they can be made to reach considerably greater weights than the general-purpose breeds. The Brahmas, Cochins and Langshans are the heavy meat-producers. There are no strictly white varieties among these but the Light Brahma should meet your requirements.

PREVENTING AFTER-SWARMS.

If the prime (first) swarm has issued under normal conditions, the first after-swarm will come forth eight days thereafter, and then an after-swarm every day or two until the surplus of bees or queens, or both, is exhausted. If, however, weather conditions have interfered with the issuing of the prime swarm the first after-swarm may issue in from one to seven days after the prime swarm came forth.

Italian bees will quite often, especially when crowded for room, swarm before they have any sealed queen cells. Under such conditions the first after-



After-swarms do not settle quickly and often alight in very inconvenient places. This one chose a fence post.

swarm will be delayed for as much as sixteen days. In fact, it is then very seldom that, if after-swarms issue at all, the first one will come forth before the sixteenth day after the prime swarm left the hive, but it may happen once in a while. It is important that all this be known by the bee-keeper if he intends to prevent after-swarms, as is desirable, and also prevent the parent colony from becoming hopelessly queenless.

There are two ways of preventing after-swarms. One is to open the hive from which a swarm has issued, six or seven days after the prime swarm came forth, and destroy all the cells but one. In this way a surplus of queens is prevented, and after-swarms, too.

Destroying all but one queen cell is easier said than done, for if the combs are crooked and have nooks and corners some of the queen cells may not be found, with the result that an after-swarm disturbs the bee-keeper's noon rest, or goes off to the woods, there to store his profit in a hollow tree. If one wants to be sure that all but one of the cells are destroyed the bees should be shaken off every comb. When

the frames are removed one by one and the bees shaken in front of the hive, many bees will be reshaken, which makes them very cross. So I have a light box with a tight bottom. It is made of quarter-inch lumber. If one has not such a box, an empty hive will do, only it is heavier and not so handy. When queen cells are to be destroyed, all of the frames are removed and set into the box. One by one the frames are shaken in front of the hive and the queen cells broken off. The frames are then set back into the hive. However, do not shake the bees from the frame on which the one queen cell is left for a queen to hatch from, for shaking often injures or even kills the embryo queens. Brush the bees from that particular frame with a regular bee brush, or with a goose or turkey wing.

The other way of preventing after-swarms is what is known as the Heddon short method. Seven or eight days after the prime swarm has issued the parent colony is carried to an entirely new location. (The prime swarm must have been hived on the old stand and the parent colony set close beside it, entrance facing the same way.) All of the parent colony's flying bees, upon finding their own hive gone, will enter the prime-swarm hive. This so depletes the parent colony that, generally, after-swarms will not issue.

Wisconsin. F. A. STROHSCHNEIDER.

FEEDING AND HOUSING MOULTING FOWLS.

As to feed for fowls that are moulting, it must be nourishing without being fattening. Consequently all such foods as corn, or meal, rice, potatoes, barley meal and all heating foods should be avoided.

The best ground feed is oatmeal, and the best grain is oats. But oatmeal is too dear and not altogether the best by itself, so we must have something to go with it. A very good soft food is made by mixing oatmeal, bran and small wheat with a little granulated meat. Pour boiling water on this, leaving in the oven over night, and mix the next morning to bring it to a crumbly consistency. Biscuit meal may be occasionally substituted for oatmeal for a change.

Oats may be the principal grain, but a little wheat may be occasionally given instead, also hemp seed, which is very valuable in promoting the growth of feathers. Green food is a necessity, so that if the fowls are confined they must have something provided, such as clover, dandelion, lettuce or cabbage, but, of course, those that have their liberty will obtain sufficient green food for themselves.

The houses and pens the fowls are placed in should be scrupulously clean. It is well to have the houses previously lime-washed and disinfected, so that no vermin of any kind will be present. The fowls are especially susceptible to the attacks of vermin during moulting, and if the vermin are allowed to infest them the process is greatly retarded. There should be a dust bath containing a little sulphur in a covered shed attached to the house. This will enable them not only to keep themselves free from vermin, but to shake loose feathers that irritate them. Pure fresh water should be provided, and a little iron as a tonic may occasionally be added to it. Grit is also necessary, tho they do not seem to use much shell.

Fowls in confinement have a tendency when moulting to pick feathers off each other. This is due to the fact that when the old feathers begin to drop off the fowls see the vermin, which are usually plentiful about this time, and pick them off. While so doing, they often pull out a new feather, which at once induces them to go for others, as these contain much oil. The habit spreads, and in a short time they are all picking at each other. Fowls at liberty, not being brot into close contact with each other, and always on the move, are not liable to this, so the remedy, or rather preventive, is to keep the fowls from moping about by giving them something to do.

Canada. W. R. GILBERT.

The best way I have ever used to rid hens of body lice before setting them, is to apply warm lard just below the vent, where the lice congregate. I also clip any feathers to which nits are clinging. By looking after the hens in this way, several times during the three weeks, I have very little trouble with lice on the chicks. —Mrs. P. C. L.

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HORTICULTURE

INTENSIVE GARDENING.

In a previous article the writer spoke of practicing this plan with peas and early tomatoes. Now the practice is all right under certain conditions, but in many cases we do it to our sorrow and at the expense of one or other of the crops. I had supposed that I was fairly conversant with the growth and habits of peas in general; but my experience in setting tomatoes between pea rows teaches me that I did this at the expense of the former. The variety of peas sown is rated as extra early and so they are under favorable conditions; but contrary to all past experience the vines, instead of being half dwarf in habit, grew to a length of five and six feet. The vines were a veritable swamp and entirely overshadowed the tomatoes and gave very little show for their development. They lived, but their condition at the end of the pea harvest put them entirely out of the race for the early crop. This experience with some like results in the past somewhat weaned me from following intensive methods too promiscuously. The practice may be, and doubtless is, all right to certain limits. The failure in the present case lies chiefly in planting two crops together that each or either would require all the ground so nearly at the same time. In general, I think, double cropping seriously interferes with tillage and lacking this, we are sure to meet disaster before the end of the season. Thorough tillage and just at the right time, means days and often weeks in forwarding a crop. It often means the difference between success and failure in the yield.

Intensive farming means more than double cropping. It means double tillage as well, and then some, and the writer need look no farther than home to see where the lack of tillage just at the right time would have saved much of the pinching of the present drouth, and thus have placed the crops in doubly better condition than they are today. Circumstances over which I had no control are, of course, responsible for the damage; but the mischief has been done and the writer must "pay the fare."

To sum up, double cropping is well enough, provided the crops are of that kind that the one shall not interfere with the other, either to crowd or make ample tillage impossible.

Wayne Co.

J. E. MORSE.

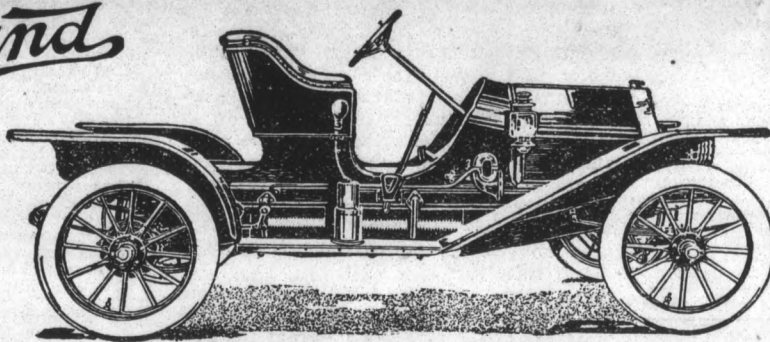
HARVESTING THE PEARS.

The reason for a great deal of the discouragement with the pear trees comes from ignorance as to the proper method of harvesting the fruit. To have well-developed, carefully-pruned trees handing you fruit that is decayed at the core is not a condition that will work to a high pitch the enthusiasm that is in one. Many have had such an experience and it would not be impossible to find that trees have been cut down for no other cause than that the fruit could not be gathered in a condition that would permit its use.

But do not blame the pear tree. Had the fruit been properly handled the damage would be greatly reduced and perhaps altogether prevented. By picking pears when they are yet hard this rotting at the core is overcome, the insipid flavor that is often present is lacking, and instead a delicious flavor that only a good pear can offer is yours. Some of the most successful growers advocate that the fruit be taken from the trees fully a month before the ordinary uninformed person would harvest it. This will give the readers of The Farmer an idea of how far they have been missing the mark if they, in the past, have expected to get good pears by leaving the fruit on the trees till ripened.

Under the plan above suggested the Keiffer pear, which has received perhaps quite as much criticism as the Ben Davis apple in the northern states, proves itself not only a variety that will stand up well in shipping, and please the housewife when she is ready to can, but exhibits to the person who would eat one from the hand real good pear quality. Try it on your Keiffers this fall. If you have other varieties that are affected as stated above, do the same with them and then write the Michigan Farmer, telling what the results are. Others who are not convinced by this article may be by your experience.

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CURRENT COMMENT.

Bank Deposits Increase. The report of the State Banking Commissioner, which was made public on July 18, shows that commercial and savings deposits in the state banks have increased to the amount of \$33,734,383.14 over the amount on deposit June 23, 1909. There are now a total of 385 state banks in Michigan, 13 new banks having been organized under the state law since Jan. 1, 1910. This report is most encouraging evidence of business prosperity in Michigan, particularly in the rural districts, since a large proportion of the business of state banks comes from the farmers of the state. This is also added evidence of the fact, which has been commented upon in these columns from time to time, that added resources in the way of larger bank accounts give producers a greater independence and a relatively increased prosperity for the reason that it enables them to market their crops to the best advantage. The reluctance of wool growers to part with their season's clip at the prices offered by dealers is another striking evidence of this fact and a further proof that the senate committee which investigated the cause of the increased cost of living were right in their conclusion that increased banking facilities and more ready money in the country were prominent causes of the better prices which have prevailed for farm products in recent years. The establishment of postal saving banks under the new law recently passed by congress may prove a still fur-

ther benefit in the same direction, and the outcome of the experiment will be watched with interest. What is now needed to further increase the agricultural prosperity of the state and nation is better organization among producers along lines of community production, which will provide for the more economical marketing of farm products, and thus give producers the benefit of a larger share of the price which the consumer is obliged to pay for his products. There is now a greater general interest in this proposition than ever before, and we believe that the next few years will see important economic development along this line.

Since the introduction of the "Midway" idea into the program for the State Fair, the agricultural shows many of the patrons of such shows, particularly of state fairs, who have not been attracted by or pleased with this sort of entertainment, have voiced the opinion that the din of midway attractions should not be imposed upon those who come to see the fair proper and to profit by its educational and high-class entertainment features, without wasting time or money on the cheap amusements which were too often allowed to occupy space on the grounds. This sentiment had the effect of bringing about the practical separation of the midway from the fair proper in such a way as to make it less obnoxious to the class of patrons above mentioned. But in this, as well as other departments of the "show," fair managers have in recent years come to a more universal realization of the fact that it pays to protect their patrons in this respect, and to combine education with amusement or entertainment, as several of the midway attractions announced by Michigan State Fair managers for this year's fair bear witness. But with the high-class music which will be provided and the free entertainment features, including daily flights of aeroplanes, which will be a part of the daily programs, there will be no occasion for any fair patron to feel that he is not getting the worth of his money in this department of the show, and with the exclusion of liquor selling from the grounds, together with the improvement above noted, this year's State Fair should prove more acceptable and attractive to the large class of country patrons who approve of a clean, up-to-date agricultural show. The new buildings which have been mentioned in a previous issue and for which the plans have been completed, will accommodate a larger and more attractive exhibit, and the entries which have already been pledged give certain promise that this year's State Fair will be more representative in character, as well as superior in attractive quality than any which have preceded it, and thus worthy of the more liberal patronage of the farmers of the state.

HAPPENINGS OF THE WEEK.

Foreign.

Troops were called to aid the police at Springhill, Nova Scotia, where striking miners became riotous when the operators ordered them from their yards and began nailing up the windows of the buildings. There are 2,000 men out on the strike.

William P. Pittman, an American who served in the foreign legion of Estrada, in the Nicaraguan revolution, and who was recently captured by Madrid, has been removed from Bluefields. This was done without notice to the government at Washington, as had been agreed to by Madrid.

News has gone out that an expedition was being formed in Alabama for assisting in the Nicaraguan rebellion. Officials at Washington are now attempting to defeat the project and will take what precautions are necessary to put down any plan that interested parties might attempt to launch.

The trustees of the Carnegie hero foundation have awarded to widows and orphans of policemen, firemen and other persons who lost their lives in the Paris floods last spring, pensions varying from \$40 to \$300.

Captain Stewart Rolls, probably the most scientific and prominent aviator in England, was killed at the aviation meet at Bournemouth, England, while riding a Wright biplane in which he recently flew across the English channel and back again. The accident was due to the breaking of one of the planes.

The king and queen of Belgium are in Paris enjoying the hospitality of the French capital.

The report that Germany would send a warship to the coast of Nicaragua has been denied by the foreign office at Berlin, as it would traverse the spirit of the Monroe doctrine, which the German government wishes to respect, for she wishes to foster friendly relations with America.

On Tuesday of this week the British house of commons vote on a bill providing for woman suffrage. Premier Asquith is expected to speak against the measure in the debate preceding the voting, while Earl Grey, foreign secretary,

will argue for it. Since a number of the representatives who voted on a similar measure before, will not be present, the outcome of the balloting is awaited with much interest by both the English electorate as well as foreign countries where the question is becoming a political issue.

Because he aspired to the presidency of Mexico, Gen. Felix Diaz, a nephew of the president, has been banished from Mexican soil.

Prince Fuerstenberg, a wealthy German, recently purchased a publication with which he and the German Emperor are to fight the principles of socialism.

A monument erected to the memory of Montcalm, the early French explorer, at Vauvert, France, was unveiled July 17. The monument was built by public subscriptions taken in France and Canada. A replica of this monument will be set up in Quebec and unveiled this autumn.

The Japanese government is looking to the future by subsidizing steamship lines that will make use of the Panama canal as soon as it opens—the lines to serve shippers from and to the eastern coast of United States, Brazil and Argentina. Another line will be run to Africa by way of Hong Kong and India.

A German company has been organized to construct armored dirigible balloons of five-ton capacity.

National.

Speaker Cannon, of the house of representatives, while making a speech at Winfield, Kans., was overcome by heat. He, however, rallied from the condition and the following day was upon the platform seemingly as well as ever.

The Grand Trunk railroad is about to build a line from Winnipeg to Chicago, over which line it hopes to divert much of the grain that now goes through Canadian ports, to Chicago and other American markets.

State officials of New York have found brokers guilty of defrauding the state of much revenue through the re-use of cancelled stock stamps, the aggregate of loss to the state being estimated at \$2,000,000 per year.

Heavy rains in the vicinity of Cincinnati and along the Ohio to the west occurred Saturday and Sunday and did considerable damage to property and crops. No fatalities are reported to have resulted directly from the storm.

An independent party is being launched in Pennsylvania for the purpose of putting in the field an independent ticket at the coming fall election.

The first presentation of aeroplanes in Michigan was made last week at the State Fair grounds, Detroit. The flights were a success in that the aviators carried out their contract to the letter and gave the patrons the full worth of their money. The weather conditions were not of the best and perhaps, but for this, new records might have been made. Walter Brookings and Duval La Chapelle were the drivers of the air crafts.

At 9:30 o'clock Monday night the conductors and trainmen of the Grand Trunk railroad system walked out on a strike, following the wishes of the men as expressed in a vote taken the day before, when all but about fifty of the employees belonging to the union declared for a strike, should the operators decline to accede to the demands of the men. Men have gone out at the Detroit yards, Port Huron, Battle Creek and all along the different lines of the system.

The promised strike on the Pennsylvania lines was frustrated when the men and the employees came together on important matters at a conference of representatives of both parties. The agreement affects 15,000 men.

A \$200,000 fire occurred at Whiting, Ind., on Monday, when the grease plant of the Standard Oil Company burned.

Guatemala is to be placed on a different monetary basis. The present standard is paper money and is to be changed to either silver or gold.

Five men were killed at the quarry at Nazareth, Pa., Monday, by a premature explosion of dynamite. The men were all foreigners.

Michigan retail lumber dealers who are in session at Detroit this week appointed a conference committee to meet with like delegations from the states of Ohio and Indiana to form a general organization of interested men of the three states.

The unofficial announcement of the findings of the committee which had in charge the investigation of the Ballinger-Pinchot affair states that the report will contain a majority and a minority issue. The majority report will exonerate Secretary Ballinger, while the minority report will declare him guilty of the charges brought.

The official statistics of casualties on the railroads of the country for the past fiscal year shows that 8,722 persons were killed and 96,626 injured on railroad property.

CROP AND MARKET NOTES.

Eastern Oceana Co., July 12.—Our drouth has at last been broken by copious showers, which have fallen this morning after the hottest weather ever experienced in this part of Michigan. Our hay crop is very light this year, owing to frost in April and May and dry weather in June and July. Early peas which are raised for the canning factory at Hart, were almost a total failure. We are hopeful that the late ones will be saved by this rain. Corn has made a very rapid growth and is now as large as usual at this time of year. Wheat and rye are now ready for harvest and promise a fair crop. Oats very short in straw and head also, owing to the drouth and hot winds. Fat cattle and hogs very scarce and high in price. Hogs, 9c; fowls, 10c; eggs, 17c; butter, 20c. No wool being sold and no inquiry for it.

Lapeer Co., July 16.—The drouth still continues and is beginning to tell on pastures and new seedling. Early potatoes likely to be a short crop. Farmers have had excellent weather to secure

their hay crop and have now commenced the harvesting of wheat and rye and oats will be a close second. Potato bugs on hand to give growers extra work. Many corn fields not clean of weeds as yet and there are also many missing hills, although many fields were replanted. There are also many missing hills in potato fields. Apples are dropping badly, and there will be a very short crop of berries of all kinds, both cultivated and wild. No plums, cherries or currants worth mentioning. Pigs still demand a large price (\$8.50). Meat market proprietors find it difficult to secure pork for their markets. Eggs lower in price, while butter prices remain stationary and prices for grain are advancing. Help has been scarce this season.

West Marathon and E. Clark Co., Wis., July 14.—Weather conditions continue unchanged since June 14th, the thermometer registering 90 in the shade most of the time, and with no rain for over five weeks most crops look very bad and farmers are getting discouraged. Cut-worms are doing great damage on corn and garden truck. There are acres where every hill is destroyed, and millet and fodder corn is being planted, although very little is coming up. Considering the dry weather corn looks good, and is the only thing farmers figure on for some winter feed. Haying about all done and averages about one-quarter of a crop compared with last year. Rye a fair crop; oats and barley very poor and most of it will be cut for hay. Potatoes look good and if a rain will come soon expect a fair crop. Cows and young stock being sold off regardless of price, from \$10.00 up, as quite a few farmers will have nothing to feed this winter and can hardly keep the team. Hay sells, from the field, at \$20 per ton; dairy butter, 22 to 24c; eggs, 14c.

St. Lawrence Co., N. Y., July 7.—The last month has been very dry and the hay crop, much heavier than any for three years, has matured rapidly, and much has been cut. Today the drouth is broken and a warm rain is falling. Grain is looking fine and corn, after its back set, is coming forward rapidly. Potatoes that escaped the frost of May 5th are doing finely, but their foe—the bug—keeps the farmer hustling. Last week butter (extras) sold for 28½c; cheese, 14c; eggs, 21c. Pork very high and young pigs selling at \$3.50 and \$4.

Steuben Co., Ind., July 18.—We have been having very hot and dry weather. Had a heavy rain and windstorm last Saturday that did some damage to the oat crop. Wheat harvest is just completed and the threshing machines are at work. Think the yield will be above the average, with a little smut in a few fields. Oats are looking well, are nearly ready to cut and are quite smutty. The stand of corn is very poor, but in growth it is well up to where it should be. The tassels are just beginning to show. Hay was never gotten in in better shape, but is a very light crop. Young clover is very small and uneven on account of the dry weather and the heavy growth of straw. Unless we get plenty of rain many fields will have to be plowed up. Early potatoes are nearly a complete failure. Wheat is selling at 90c; corn, 65c; butter, 18c; eggs, 15c; hens, 11c; hogs, 8½c; sheep and cattle are much lower.

West Warren Co., Ill., July 13.—The first good soaking rain for almost two months came on the 9th. Wheat harvest, laying by corn and having all on at once. Harvest hands almost impossible to get at \$2.50 per day. Oats have been ripening almost too fast, owing to dry weather. Wheat the largest acreage for years, with prospects of a big yield, while oats look the best for the last three years. There will be some wheat threshing done this week. All early potatoes dried up and garden truck injured by the long dry spell. Dealers pay for, in trade, eggs, 13c; butter, 20c, and almost impossible to get, owing to the farmers shipping their cream; corn, 55c; oats, 40c.

Wayne Co., July 18.—The weather has been very hot and dry, but we had a very nice rain July 15. Wheat mostly cut and shocked up well. Haying pretty well along, and a good yield. Oats beginning to ripen, looks as tho there would be a fair crop. Corn is fair for the season. Potatoes late and mostly a poor stand, being thin on the ground; butter still stands at 22c per lb; eggs, 18c per doz.

Gratiot Co., July 12.—Extremely dry weather has prevailed since early June, and the drouth is beginning to be felt. Corn on lighter soils rolls and early potatoes seem to be little improved since June. The lion's share of the hay crop was secured the week of the Fourth and in good condition, because of the ideal hay weather. The cut was much better than was expected in June. Much wheat will be cut by July 20, and the crop is the heaviest for several years. Beans for the most part made rapid growth, but have had little attention, as the haying came on so soon after planting. Oats have a heavy growth and are well headed, but fear is expressed that the dry weather will prevent their filling.

MIDSUMMER CROP CONDITIONS.

The general average condition of crop growth in the United States on July 1, 1910, was about 5.5 per cent lower than on July 1, 1909, 3.8 per cent lower than July 1, 1908, and 3.4 per cent lower than the ten-year average condition on July 1. In the New England states conditions are 3.5 per cent better than a year ago and 4.1 per cent above the average. In the Southern states conditions are about 3.5 per cent better than on July 1 a year ago and 2.4 above the ten-year average; in the North Central states, east of the Mississippi river, conditions are 8.7 per cent below a year ago and 4 per cent below the average; in the North Central states, west of the Mississippi river, 15 per cent lower than a year ago and 12.2 per cent below the average; in the far Western states, 3.6 (Continued on page 67).

GRANGE

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

THE AUGUST PROGRAMS.

State Lecturer's Suggestions for First Meeting.

"How can we accomplish most with the energies and powers at hand? What is worth while?"—Anna R. Brown.

Song.
Three conundrums, propounded by the Steward, and answered by members.

A five-minute story, read or told by The Gatekeeper.

Things that are worth while: 1. The crop that pays me best; 2. The animals that bring me most returns; 3. The hours that I spend most profitably; 4. The things that I do that are most satisfactory.

Select reading, "Which is Better?"

Roll call, responded to by each member naming things that have been "worth while" to him.

Fan exhibit, a surprise feature, prepared and conducted by the women.

MAKING A SUCCESS OF THE OUT-DOOR MEETINGS.

With the approach of the annual rallies and field meetings, Patrons may profitably do a little quiet thinking on how they may most effectually use, for the advancement of the organization in general, the opportunity for good work which these occasions offer. The outdoor Grange meeting has become wonderfully popular in recent years—so much so that it is taxing the ability of the State Grange to furnish the speakers required for these meetings. In his annual address at Traverse City, last winter, State Master Hull showed that this work is drawing heavily upon the funds of State Grange, but he also showed that it has unquestionably been of great value in inspiring weak Granges and indifferent members, in adding to the membership, and in advertising the organization generally. Master Hull believes that where the most is made of the opportunities offered by these meetings the results seldom fail to justify the expense, and he therefore sought to impress those Granges which ask for aid from the state organization at this time with the fact that they owe it to the Order to make an extra effort to use that aid to the very best advantage. He recommended the short program and light refreshments as drawing cards, but said that the greater factor in the success of these meetings is personal invitation. Where a person that we wish to reach is given a hearty invitation to such a meeting, by three or even more members, he is pretty apt to be present. It has been said that it is easy enough to make a success of such a meeting where the Grange is strong and enthusiastic, but a band of not more than six members, who are anxious to make a success of such a gathering, can arouse all the enthusiasm that is necessary if they will. Supposing that all the persons who ought to attend such a meeting were invited and urged to come by each of those six. They would naturally conclude that there was enthusiasm there, and there would be.

THE OLDER POMONA GRANGES.

In New Hampshire the State Grange has established the precedent of filing, in the office of its secretary, data touching the organization of each of the Pomona Granges formed in that state. In gathering data with a view to compiling a brief history of one of the New Hampshire Pomona, Bro. Geo. R. Drake, of that state, appears to have established the fact that to the state of Illinois belongs the credit of having organized the first Pomona after provision for such organizations had been made by the National Grange. Concerning the results of his investigation, he says:

The county, district or Pomona Granges were not a part of the original Patrons of Husbandry and when, where and by whom the first ones were instituted is shrouded in mystery. Altho the National Grange did not provide plans for the organization of Pomona Granges until the famous session held in Charlestown, S. C. in 1874, yet similar Granges were instituted previous to that time.

It is maintained by Chemung Pomona Patrons, of New York, that theirs is "the first Pomona ever organized under the laws of the National Grange," and no evidence has been found to refute the claim, but I have a copy of the records, made more than nine months previously, at the organization of Peoria Co., Illinois, Pomona and, as its number is 33, it is apparent that similar Granges were established in the middle west before the National Grange provided for them and framed laws for their government.

In procuring data for the "History of Eastern N. H. Pomona Grange," the fol-

lowing dates of organization have been furnished by the secretaries of the respective Pomona Granges:

Peoria Co., Ill., No. 33, organized June 2, 1874.
Chemung Co., N. Y., No. 1, organized March 6, 1875.
New Castle, Del., No. 1, organized May 1, 1875.
Burlington Co., N. J., No. 1, organized May 18, 1875.
Chester and Delaware, Pa., No. 3, organized June 3, 1875.
Berrien Co., Mich., No. 1, organized July 11, 1875.
Androscoggin Co., Me., No. 1, organized Sept. 28, 1875.
Chittenden Co., Vt., No. 1, organized January, 1876.

AMONG THE LIVE GRANGES.

Voted an Improvement.—Fairfield Grange, of Lenawee Co., had an attendance of 53 at its meeting on July 9, and put a candidate through the first two degrees. Grange decided to have a new cement walk laid in front of its home.

Charlevoix Granges Keep Up Interest.—The hot weather has had little effect upon Grange attendance in Charlevoix.

Ironton Grange has just inaugurated another contest for increasing membership. At its July 5 meeting it had an attendance of 44, and obligated two candidates in the first and second degrees. Maple Grove on the same date had an attendance of 23 and received four new members. After a short but entertaining program a committee was appointed to arrange for the annual picnic.

Wilson Grange met July 9 with 25 Patrons present and enjoyed an unusually good program, while Deer Lake Grange received five applications for membership at its meeting on July 2.

COMING EVENTS.

Grange Rallies and Picnics.

Oceana Co., at Pentwater, Saturday, July 23.

Berrien Co. Granges, at Eau Claire, Saturday, July 30. B. E. Kies, speaker.

Lenawee Co. Pomona, with Fruit Ridge Grange, Thursday, Aug. 4.

Pokagon Grange, Cass Co., at West's Landing, Indian Lake, Thursday, Aug. 4.

Northern Lenawee Co. Grange and Farmers' Clubs, at Sand Lake, Putnam's Landing, Saturday, Aug. 13.

Kent Co. Pomona, at Silver Lake, Cannon township, Kent Co., Wednesday, Aug. 17.

Pomona Meetings.

Charlevoix Co., with Norwood Grange, Thursday, Aug. 18.

FARMERS' CLUBS

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

Associational Motto.—

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

NOTICE TO CLUB SECRETARIES.

The state secretary has forwarded annual reports to the different clubs of the state. If any club fails to receive their package, please communicate with the secretary. In cases where there was no express office at the postoffice address, the reports were sent to the nearest express office. There are still some clubs that have neglected to forward the 1910 list of officers with addresses. Will they not do so immediately and oblige?—Mrs. C. P. Johnson, Sec.

CLUB PICNICS.

The Hadley and Elba Farmers' Club, of Lapeer Co. will unite with the Lapeer Co. farmers' picnic on August 18, instead of holding a separate annual picnic as was previously planned.

CLUB DISCUSSIONS.

Hold Children's Day Meeting.—The Hadley and Elba farmers held their June meeting at Walnut Ridge, the home of Mr. and Mrs. Wm. Bartenfelder. This was children's day, and the young people furnished a delightful program, consisting of songs, recitations and instrumental music. Prof. J. F. Reiman and family, of Hudson, were present, and contributed several numbers to the program. Mr. Reiman is thoroughly interested in all matters of school and higher education, and we congratulate Hudson in her choice of a Hadley "boy" as superintendent of her city schools. The club voted to dispense with the picnic July 4th and unite with the Lapeer Co. Farmers' Picnic, Aug. 18. The next regular meeting will be at the home of Mr. and Mrs. Frank Smith in September, when we expect Prof. Baker of M. A. C. to tell us how to care for the farm woodlot. This will be a very interesting meeting and a cordial invitation is extended to all to come and share the pleasures and profits of the day.—Mrs. C. P. Johnson, Sec.

Oppose Prize Fight Pictures.—Mr. and Mrs. Frank S. Aldrin, daughter, Miss Anna, and son, Fred, most pleasantly entertained the members of the Burton Farmers' Club, of Shitwassee Co., at their hospitable home, Thursday, July 7. Owing to the absence of the president, C. E. Potter acted as chairman. The club opened with an old song, "O, Come, Come Away," followed by the devotional exercises conducted by the chaplain,

Mrs. Hammond. By vote, Mr. and Mrs. John Sherman were reinstated as members of the club. A motion was made and unanimously carried that the Burton Farmers' Club go on record as opposed to the exhibition of pictures of prize fights in our moving picture shows.

The Best Food for Little Chicks.—Mrs. Hammond feeds her little chicks bread and milk for two or three weeks, after which she gives them wheat or cracked corn. Mrs. Garber feeds the bread dry and gives them plenty of water to drink for four weeks, then the wheat and cracked corn. Mrs. Giles likes the steel cut oat meal as a feed for little chicks.

Should Our Divorce Laws be More Strict?—One believes if the divorce laws were more strict, fewer couples would get married. Another thinks the home training should be bettered and another believes we should have strict national divorce laws.

The Best Way to Make Hay.—"Which is the best way to make hay, the old or the new?" Mr. Aldrin thinks the new way is the cheapest, easiest and quickest, hence the best. The hay is just as good and sells for just as much. A loader and rake will pay for themselves in two years.

Auto Testing on Highways.—"Should the highways be used for testing autos and auto trucks?" A most spirited discussion followed on this question, but all doubt whether the auto or auto truck has any right to plow up the roads and run faster than the law allows when testing their machines on our country roads.

The Poultry House.—"If you were to build a new chicken house, which would you build, wood or cement?" Neither Mrs. Garber nor G. C. Potter have had any but wood hen houses and like them very well. Mr. Fauth told of a neighbor's chicken house which is made of cement. It is built very nicely but proves to be unsatisfactory because of the dampness. Mrs. Moulton said that they had small chicken houses built without any floor so they could be moved to any field, and had found them very successful.

The Fly Problem.—"How can we keep flies from the house?" Mrs. Hammond says we should keep every door and window screened and the premises round about the house clean. Mrs. Haff says she has read that flies would never go where there was a hop vine growing. Mrs. Fauth says sweet peas and sweet clover are disagreeable to flies. After Mrs. Fauth had announced the program for the August meeting, the club was adjourned to meet Friday, Aug. 5, with Mr. and Mrs. W. J. Brookins.

Nutrition of Plant Life.—The last meeting of the Maple River Farmers' Club was held at the home of Mr. and Mrs. Wm. Gladden, and it proved a most enjoyable and profitable session. "Nutrition of Plant Life" was the topic assigned to Floyd Reynolds, who evidently gave the topic profound thought and consideration. Plants are very similar to animals. The same food that goes to compound plant structure goes also to build up animal form. The only apparent difference between plants and animals is that the material utilized in structural formation undergoes a different chemical change. Plants have organs that prepare their food for structural purposes the same as animals. There are two sources of plant food supply, the air and the soil. From the air plants obtain oxygen, hydrogen and nitrogen, which undergoes a chemical decomposition before available for plant consumption. From the soil plants obtain oxygen, hydrogen and nitrogen, which undergoes a chemical decomposition before available for plant consumption. From the soil plants obtain upwards of ninety different elements and compounds of different chemical composition. Mr. Reynolds spoke of the need of handling the soil in such a manner as to keep within easy reach of plants an abundance of available plant food. The nutrition of plant life, which in reality is the assimilation of plant food, cannot be successfully carried on unless conditions are favorable for chemical reaction to take place. Plants with weak assimilative organs are like people trouble with indigestion, the food cannot be broken down and utilized for structural purposes. Mr. Reynolds spoke of the vital importance of directing careful study to plant life. The growth and development of a plant is the very best index of its health and vigor.

The "White Plague" Problem.—"How to Control and Eradicate the White Plague," was presented in an able paper by Mrs. A. B. Cook. The white plague is a term applied to tuberculosis. In the past few years this disease among the human race has made great progress, and unless strenuous measures are adopted to obliterate and check its spreading, the American people face a deplorable condition. In large cities where the population is congested and unsanitary conditions prevail, tuberculosis is fast getting a foothold. Mrs. Cook spoke of the work that is being done in many of the large cities to eradicate this disease. In New York, Chicago and a large number of other cities homes have been established for consumptives, and are proving very effective in preventing the spread of the disease. She also spoke of the importance of giving more attention to the prevention of tuberculosis. In the early stage of the disease the progress of the germ can be checked, but after the trouble has once got a firm hold, there is no known cure. Open air exercise is one of the effectual means of developing strong, vigorous lungs. Sleeping rooms that are well ventilated and clean are vital to the health of every person.

The Importance of Self-Control.—E. J. Cook spoke on this subject. He believes that there is nothing more essential in the development of character than self-control. One author has said that there are two diseases of the human race that cause undue suffering, and they are inflammatory temper. It is degrading as well as demoralizing to lose control of one's self.

ALWAYS mention the MICHIGAN FARMER when you are writing to advertisers.

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Even sowing means even growing, even ripening and proper grading of the grain. The feed of a grain drill, as well as the furrow opening devices, are of great importance. Some styles of furrow openers are best adapted to one kind of soil and some to others. The Farmers' Favorite Grain Drill, manufactured by The American Seeding-Machine Co., Incorporated, Springfield, Ohio, is positive in its sowing of all known seeds, both large and small, as well as all kinds of fertilizers. It is a decided success in all parts of the world where grain is raised. It is made in large variety of styles and sizes, fully and honestly guaranteed to do the best possible work. Wherever you live or whatever your seeding conditions may be you can get a Farmers' Favorite Drill that will do your work as you want it done. Send to the manufacturers for their Farmers' Favorite catalogue, and go to your local implement dealer and insist on seeing the Farmers' Favorite.

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Salzer's new winter wheat puts remarkable yielding possibilities into old soils and makes the worn-out fields produce yields as in the good old days. Send 6c for free samples of Winter Wheat, Winter Rye, Winter Barley & other grasses & clovers, etc., to be sown in the fall of the year, as also our free catalogue.

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BUY LANDS IN NEW MEXICO.—THE NEW STATE MARVELOUS PROFITS FROM FRUITS—ALFALFA AND TRUCK. Act now while land is cheap. We sell no land. Write for facts. State Immigration Board, Albuquerque, N. M.

FOR SALE.—233 acres of best Michigan farm land located 4 miles east of Ann Arbor. Large modern house and barns, fine water supply and 20-acre wood lot. Inquire at No. 424 S. Main St., Ann Arbor, Michigan.

MICHIGAN FARMS.—Improved fruit, stock and Eaton counties, \$25 to \$75 per acre; splendid water, schools and roads. Low taxes. Write for List No. 4. BUCKLES & MATTHEWS, Hastings, Mich.

FOR SALE.—120-acre farm, situated in the best farming section in Michigan, 1½ miles from Byron, Shiawassee Co., on Ann Arbor Ry., 89 miles north Toledo, Ohio. Every condition right. Fine roads, water, churches, schools, markets. Low taxes. Price, \$7,000. Can be bought with \$3000, 6 per cent long time mtg. for balance. Address V. L. STARK, Care Stark & Cook, Flint, Mich.

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. Staffed Bros., (owners) 15 Merrill bldg., Saginaw, W. S. Mich.

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THE PACKARD LAND CO., Box 116, Pensacola, Florida.

MARKETS

DETROIT WHOLESALE MARKETS.

July 20, 1910.

Grains and Seeds.

Wheat.—The whole tendency of the market this past week has been upward. The dry weather was not broken until Monday, when the trade quickly responded to the better conditions and the rapidly advancing market was interrupted with a drop of a cent and a half. Both cash grain and the futures were evenly affected by the conditions. Spring wheat was largely benefited in some of the large producing sections. Farmers continue to sell liberally in the southwest where threshing is in progress. Liverpool is lower, due in part to the American weakness and some to improvement in the Russian crop. Threshing will soon be the order in Michigan where it is expected that a good crop of fine quality will be garnered. The price for No. 2 red wheat on this market a year ago was \$1.35 per bu. Visible supply shows a decrease of less than a million bushels. Quotations for the week are as follows:

	No. 1	No. 2	Sept.	Dec.
Thursday	1.07	1.07	1.06 1/2	1.08
Friday	1.08 1/2	1.08 1/2	1.08 1/2	1.10 1/4
Saturday	1.09	1.09	1.09 1/4	1.11
Monday	1.10	1.10	1.09 1/4	1.11
Tuesday	1.08 1/2	1.08 1/2	1.07 1/2	1.09 1/2
Wednesday	1.09 1/2	1.09 1/2	1.09	1.11

Corn.—This place has had a firm and quiet corn trade this past week with prices going up steadily. The corn is needing rain and while some few sections were satisfied with good showers many others continue to suffer and the crop appears to be on the decline. The Michigan crop appears to find favor with the weather man and is growing now as well advanced as in normal seasons despite the delay in planting. Little feeding and the supply of other feeds makes the demand for corn small, which causes the quiet market. One year ago we were paying 74c per bushel for No. 3 corn. Quotations for the week are as follows:

	No. 2	No. 2
	Mixed.	Yellow.
Thursday	63 1/4	65
Friday	63 1/4	65 1/2
Saturday	64	66
Monday	64	66
Tuesday	64 1/2	66 1/2
Wednesday	64 1/2	66 1/2

Oats.—The oat crop will soon be ready for the harvester. In Illinois and Indiana harvesting is now well under way and the crop promises to be a good one—the heads being long and the berry well filled. The price is advanced for the week, due largely to the influence of wheat and corn. At this date in 1909 the price for No. 3 oats was 54c. Quotations for the week are:

	Standard.	Sept.
Thursday	44	40
Friday	44	40 1/2
Saturday	45	40 1/2
Monday	47	40 1/2
Tuesday	47 1/2	40
Wednesday	47 1/2	40

Beans.—There is a firm tone to the bean trade. Dealers have seen fit to put up the nominal quotations here to attract the outside points have given the trade encouragement by advancing values. The crop appears to be doing well except that in places the ground is so dry that proper growth is not being made. The nominal quotations for the week are as follows:

	Cash.	Oct.
Thursday	2.22	2.05
Friday	2.22	2.05
Saturday	2.27	2.08
Monday	2.27	2.08
Tuesday	2.27	2.08
Wednesday	2.27	2.08

Cloverseed.—Dry weather following haying is always damaging to the clover crop, especially to the June seed, and that is the case in many of the sections of this state now. This condition has advanced prices as may be seen from the quotations given below:

	Prime Spot.	Oct.
Thursday	7.00	6.85
Friday	7.00	6.85
Saturday	7.00	6.85
Monday	7.20	7.20
Tuesday	7.25	7.25
Wednesday	7.25	7.25

Rye.—The market is quiet and steady. The nominal quotation is 78c per bu., which is the price of a week ago.

Visible Supply of Grain.

	This week.	Last week.
Wheat	10,834,000	11,613,000
Corn	4,740,000	4,743,000
Oats	3,549,000	4,007,000
Rye	318,000	361,000
Barley	1,107,000	1,444,000

Flour, Feed, Provisions, Etc.

Flour.—The flour trade is strong at the ruling values of a week ago. Quotations are:

Clear	4.60
Straight	4.80
Patent Michigan	5.10
Ordinary Patent	4.90

Hay and Straw.—All grades steady at last week's figures. Quotations on baled hay in car lots f. o. b. Detroit, are: No. 1 timothy, \$17.50@18; No. 2 timothy, \$15.50@16; clover, mixed, \$15.50@16; rye straw, \$7@7.50; wheat and oat straw, \$6.50@7 per ton.

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

Potatoes.—A steady trade prevails with demand and supply well adjusted to keep prices firm. They are quoted at \$1.50@2 per bbl.

Provisions.—Mess pork, \$25; family pork, \$25@26; medium clear, \$24@26; smoked hams, 17 1/2c; dry salted briskets, 15c; shoulders, 14c; picnic hams, 13 1/2c;

bacon, 20@21c; lard in tierces, 12 1/2c; kettle rendered, 13 1/2c per lb.
Hides.—Steady. No. 1 cured, 9c; No. 1 green, 7 1/2c; No. 2 cured bulls, 8c; No. 2 green bulls, 6 1/2c; No. 1 cured veal kip, 10c; No. 1 green veal kip, 8c; No. 1 cured calf, 14c; No. 2 kip and calf, 12 1/2c; No. 1 horsehides, \$3.50; No. 2 horsehides, \$2.50; sheepskins, as to amount of wool, 20@60c.

Dairy and Poultry Products.

Butter.—Values have not changed this past week. There is a good demand and the output is limited by the quality of the pastures which have been damaged by the continued dry weather. Recent rains helped but not sufficient to influence butter prices. The following are the quotations: Extra creamery, 28c; firsts, do., 27c; dairy, 22c; packing stock, 21c per lb.
Eggs.—No changes occurred during the week in the price for eggs. The demand is good and the supply fair. Fresh eggs, case count, cases included, are quoted at 17 1/2c per doz., which is the price of a week ago.

Poultry.—All the grades of poultry rule about the same as a week ago except in the chicken department where the improved supply is pushing values down. Demand is quiet. Quotations are: Broilers, 19@20c; hens, 14c; old roosters and stags, 12c; ducks, 16c; geese, 11@13c; turkeys, 16@16 1/2c per lb.

Cheese.—Michigan, late made, 15c; Michigan, fall made, 17 1/2@18c; York state, 18@18 1/2c; limburger, old, 17@18c; Swiss, domestic block, 23@24c; cream brick, 16@16 1/2c
Calves.—Steady. Choice to fancy, 11@11 1/2c; ordinary, 10 1/2c.

Fruits and Vegetables.

Apples.—New apples are on the local market. They are not plentiful and are selling at \$4.50@5.50 per hamper.

Cabbage.—Steady. Selling at \$1.25@1.75 per crate for new.

Currants.—Reds selling here at \$3@3.50 per bu.

Raspberries.—Offerings are in fair supply. Trade active. Reds are quoted at \$3.75@4 per bu. Blacks, \$1.25@1.50 per 16-qt. case.

Blackberries.—Market lower; supply is fair. Selling at \$3@3.50 per bu.

Huckleberries.—Selling at \$4.25 per 24-qt. case.

Gooseberries.—Lower. Quoted at \$2@2.50 per bushel.

Cherries.—Hard to get. Now selling at \$3.50@4 per bu. for sour. Sweet, \$4 bu.

Vegetables.—Beets, 35c per doz; carrots, 25c per doz; cucumbers, 60@75c per doz; eggplant, \$1.25@1.50 per doz; green onions, 10@12c per doz; head lettuce, 75@90c per bu; mint, 25c per doz; parsley, 20@25c per doz; radishes, 15c per doz; spinach, 65c per bu; turnips, 40c per doz; watercress, 20@25c per doz; wax beans, \$2 per bu; pieplant, 20c per dozen.

OTHER MARKETS.

Grand Rapids.

The berry season is rapidly closing, hastened by the dry, hot weather. Prices on the city market Tuesday morning ranged as follows: Red raspberries, \$1.75@2; black raspberries, \$1.40@1.60; blackberries, \$2. Cherries are higher, selling for \$4 per bu. Currants are worth \$1.65@2. The early crop of home-grown potatoes have been hit hard by the hot, dry weather, the few that have been offered being small and inferior. First home-grown summer squash are in market, selling at 8c per lb. Peas are worth \$1.40 per bu., butter beans, \$3. The egg market is a trifle weaker, the price to the country trade being 17@17 1/2c. Creamery butter is steady at 28c, dairy at 22c. Dressed hogs are bringing 11 1/2c. Wheat is up 3c, No. 2 red bringing \$1.04; No. 1 white, \$1.02 per bu.

Chicago.

Wheat.—No. 2 red, \$1.09@1.10 1/2; September, \$1.08 1/2; December, \$1.07 1/2.
Corn.—No. 2 mixed, 62@62 1/2c; September, 60 1/2c; December, 58 1/2c.

Oats.—No. 3 white, 40 1/2@42 1/2c; September, 39 1/2c; December, 40 1/2c.

Butter.—Despite an undertone of weakness last week's advanced prices still rule. Quotations are: Creameries, 24@28c; dairies, 24@26c.

Eggs.—Market continues slow and easy with last week's lower values ruling. Prime firsts, 17c; firsts, 15c; at mark, cases included, 10@14c per doz.

Hay and Straw.—Market strong with all grades of hay showing a further advance of \$1 per ton. Straw steady at last week's figures. Quotations are: Choice timothy, \$21@21.50; No. 1 timothy, \$19.50@20.50; No. 2 do. and No. 1 mixed, \$18@19; No. 3 do. and No. 2 mixed, \$14.50@17.50; rye straw, \$9@10; oat straw, \$7@8; wheat straw, \$6.50@7.

Potatoes.—Prices are 10c lower for best stock with market rather easy under increasing receipts. Choice to fancy new, 63@65c per bu; fair to good, 58@60c.

Beans.—All kinds higher; market firm. Choice hand-picked are quoted at \$2.36@2.40; fair to good, \$2.26@2.30; red kidneys, \$3@3.50 per bu.

Wool.—Trade slow; prices show no change. Fine delaine, unwashed, 20@22c; fine medium, 22@24c; medium, 23@25c.

New York.

Butter.—Weaker; creameries 1 1/2c lower. Creamery specials quoted at 28 1/2@29c; process butter, 22@25 1/2c per lb.

Eggs.—Market firm. Nearby eggs are quoted at 24@30c; fresh gathered extras, 19 1/2@21c; firsts, 17@18c per dozen.

Poultry.—Market irregular; fowls have advanced while broilers are lower. Live quoted as follows: Western fowls, 18 1/2@19c; western broilers, 20@22c; turkeys, 10@14c per lb.

Boston.

Wool.—Strong competition continues in the London auctions now in progress, and since Americans are buying there farmers here think they are warranted in holding their wool for they are still of the opinion that the action of buyers is a bluff. Nothing would be more pleasing to the farmers than to be able to hold out until buyers were compelled to pay the price asked and most farmers are in a position to do it. The following are the leading domestic quotations: Ohio and Pennsylvania fleeces—Delaine washed, 34c; XX, 30c; half blood combed, 27@28c; three-eighths blood combed, 27@28c; quarter blood combed, 26@27c. Michigan, Wisconsin and New York fleeces—Fine unwashed, 19@20c; delaine unwashed, 23@24c; half blood unwashed, 26@27c; three-eighths blood unwashed, 26@27c; quarter blood, 25@26c. Kentucky, Indiana and Missouri—Three-eighths blood, 26@28c; quarter blood, 24@26c.

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Elgin.

Butter.—Market is firm at 28c per lb., which is last week's quotation. The sales for the week amounted to 1,029,600 lbs., compared with 1,076,334 lbs. for the week previous.

THE LIVE STOCK MARKETS.

Buffalo.

July 18, 1910.

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

Receipts of stock here today as follows: Cattle, 145 cars; hogs, 2,560; sheep and lambs, 3,600; calves, 1,500.

With 145 cars of cattle on sale here today, we report all cattle from 1,100 lbs. down, strong at last Monday's prices, and cattle weighing above 1,100 lbs. slow and barely steady, and in many instances 10c lower.

We quote: Best 1,350 to 1,500-lb. steers, \$7.75@8; good prime 1,200 to 1,350-lb. do., \$7.25@7.60; best 1,100 to 1,200-lb. shipping steers, \$6.50@7.25 medium butcher steers, 1,000 to 1,100 lbs., \$5.50@6; light butcher steers, \$5@5.40; best fat cows, \$5.25@5.75; fair to good cows, \$4.25@4.75; common to medium do., \$3@3.75; best fat heifers, \$6@6.50; good fat heifers, \$5@5.50; fair to good do., \$4.25@5; stock heifers, \$3.50@3.75; best feeding steers, \$4.50@4.75; medium to good do., \$4@4.25; stockers, all grades, \$3.50@3.75; best bulls, \$5.25@5.50; bologna bulls, \$4@4.50; light thin bulls, \$3.50@4; best milkers and springers, \$5@6; common to good do., \$3@4.00. The good cows were \$2@3 higher today; common cows steady.

Hog market opened about steady at Saturday's close, or otherwise 5@10c lower than early prices Saturday morning; closing with a good clearance. Everything selling that was yarded in time for the market.

We quote: Medium and heavy from 200 to 220 lbs., \$9@9.10; 250 and up, \$8.90@9; yorkers, \$9.25@9.40 as to weights; pigs and lights mixed, \$9.50@9.70; roughs, \$7.50; stags, \$6@6.50. Prospects look fair for the future at about the above prices.

The lamb market opened steady and closed a quarter higher, with most of the best spring lambs selling at 7c; few at \$7.25; yearling lambs, \$5.75@6. All selling; look for steady market balance of week. Sheep market was steady today, and look for steady prices balance of the week.

We quote: Spring lambs, \$7@7.25; yearlings, \$5.75@6; wethers, \$5@5.25; ewes \$4@4.25; cull sheep, \$2.50@3.50; bucks, \$2.50@3; veals, choice to extra, \$9.75@10; fair to good do., \$8.50@9; heavy calves, \$5@6.

Chicago.

July 18, 1910.

Received today 26,000 23,000 40,000
 Same day last year 25,436 28,651 22,959
 Received last week 56,516 102,348 108,570
 Same week last year 49,297 93,390 95,631

The week starts off today with full supplies of everything except hogs, the collapse in hog prices last week tending to restrict country shipments. Last Saturday's hog sales were at \$7.90@8.90, with prime pigs selling at \$9@9.10. On the preceding Saturday hogs sold at \$8.30@9.37 1/2. The decreased run today made a better outlet, and sales were at Saturday's best figures, with best light hogs at \$8.90 and some pigs at \$9. The hogs received for the last two weeks have averaged 244 lbs., compared with 224 lbs. a year ago, 221 lbs. two years ago and 236 lbs. three years ago. Cattle were rather animated today, good lots running firm and others selling largely 10c lower. Thirty cars of Montana range cattle arrived, and further supplies are expected tomorrow. Calves sold at \$3@9. The market was glutted with sheep and lambs, principally lambs, and the great bulk of the offerings hailed from the ranges and graded poorly. Prime lambs were up about 15c after last week's decline of \$1 in lambs and 50c in sheep, with few offered, most of the lambs being inferior and fit only for feeders. Sheep were 10@15c lower. Lambs were salable at \$4@6.65, wethers at \$3@3.90, ewes at \$2@3.75 and yearlings at \$4@4.90. Feeder lambs were wanted at \$5.50@6.

Cattle started off last week slow and decidedly lower, a Monday run of 25,388 head being too large for a single day and causing breaks of 10@25c. Better markets were seen on other days, the next largest receipts being 17,169 head on Wednesday, while quite moderate numbers showed up on other days. There were good rallies in prices for desirable offerings, which met with a good demand both on local and eastern shipping account, but ordinary grassy cattle failed to sell above the Monday decline. The bulk of the beef steers sold during the week between \$6@8, ordinary lots selling at \$4.65@6, fair killers at \$6.10@6.95; medium lots at \$7@7.45, good cattle at \$7.50@7.95, and choice to extra heavy shipping steers at \$8@8.60. The widening out of prices between common and prime cattle is what is always looked for at this time of the year, and its continuance is almost a certainty, for while there are plenty of grass-fed cattle, the supply of prime corn-fed steers is growing smaller all the time. Butcher stock has sold well or otherwise according to the quality of the cattle, cows and heifers bringing \$3.85@6.65, while canners and cutters had fair sales at \$2.35@3.80, with sales of bulls at \$2.75@6. The stocker and feeder trade was more animated so far as stockers

were concerned, sales ranging at \$3@5.10, but very few buyers were willing to pay the high prices asked for desirable feeders, sales ranging at \$5@5.85, and some lots selling at \$4.60@4.90. The dry spell has burned up pastures in many places and stopped the demand for feeders and forced cattle on the market prematurely. Distillery-fed steers have sold at \$7.25@8.15 and Texas steers at \$4.40@6.40. A continuance of recent general features of the cattle trade is generally expected, with a tendency to increase buying of fat little handy yearling steers and heifers.

Hogs were marketed more freely last week, particularly on Monday, when 36,128 head arrived, and some sharp breaks in prices took place, the best grades sharing in the declines, although the greatest depression was shown in rough, heavy lots, which were discriminated against by packers. Eastern shippers were apt to buy more freely, and on Monday 6,389 hogs were shipped out, lower prices tending to stimulate buying. Shippers wanted a good to choice grade of hogs of rather light weight, and light hogs sold highest of all, but strong weight pigs were higher than matured hogs, topping the market daily. Heavy hogs continued to make up the great bulk of the daily offerings, and the spread in prices widened out a good deal, coarse heavy hogs selling below \$8. Quality showed a falling off, and more thin, grassy sows at times indicated a desire to cash in everything marketable around ruling quotations. Prospects appear to be bright for choice hogs, but the common heavy kinds are likely to go much lower. Hogs for cutting up into fresh pork and bacon are the favorites.

Sheep and lambs were plentier than ever last week, with especially liberal supplies from the distant ranges, the first shipments of the season arriving from Montana, while the burned-up ranges of Idaho forced in big numbers of sheep and spring lambs prematurely. Great numbers of the range offerings were wholly undesirable for converting into mutton, and buyers in search of feeders had fine chances to load up, their increased operation accounting mainly for the greatly enlarged shipments from here. Packers continued to have things pretty much their own way, and further big breaks in prices placed the market on a much lower level than a year ago, the continued heavy shipments of southern spring lambs from Louisville to the packers direct helping them to buy lambs on the open market here on much easier terms. There was a growing demand for breeding ewes, which sold at \$4@4.75, with prime yearling range breeding ewes selling up to \$5.75.

Horses were more active part of last week, eastern buyers from Philadelphia, New York and other cities taking hold with more freedom. The demand called for drafters at \$170@250 per head, with finished 1,800-lb. animals selling up to \$285, while 1,600-lb. chunks were taken at \$190@220. A fair outlet was seen at times for expressers at \$160@210, and wagon horses were taken at \$130@175. Drivers had a limited sale at \$150@300, while feeders were in only fair demand at \$170@225. Continued activity during the midsummer cannot be expected. F.

LIVE STOCK NOTES.

Greatly altered conditions prevail in the hog markets of the country, it having been impossible to longer maintain the high prices that had been prevailing. Hogs are still extremely high as compared with former years and are generally expected to continue to bring high prices, but a return to the fancy figures that were paid so readily a few months ago is hardly looked for, even by the most ardent bulls. Eastern buyers in Chicago and other western markets some time ago ceased to buy with any degree of freedom, stating that they could no longer afford to pay ruling prices, and since then western packers may be said to have been in practical control of the situation.

Heavy packing hogs, after a long period during which buyers paid nearly as high prices as were offered for the lighter and medium weights, have had a big fall, and there is no telling how much lower they will go. They are placed in a weaker position than is usual at this season of the year because so many farmers are using unusual pains to make their hogs good and fat before sending to market. Corn as compared with prices paid for hogs, is a very cheap article, and much better returns are made by converting it into pork than by marketing the grain. Furthermore, the old sows are first fattened up in good shape and then shipped to market, where they have to be disposed of at an enormous discount from prices readily paid for barrows of light weight. The loud call is for bacon hogs and pigs, while farmers are sending in mostly lard hogs. It was believed some time ago that most farmers would realize the importance of retaining their good brood sows of known value to be used still for breeding purposes, but it is found that many farmers take a widely different view of the matter and are retaining only their sow gilts for breeding. Perhaps later on they will see that a mistake has been made in letting the sows go.

The silage system is being tested at the Illinois agricultural experiment station, with a view of maintaining an average of one cow per acre throughout the year. This means that one acre will produce sufficient forage to feed a cow a year and maintain her in good condition. A successful working out of this scheme would enable a doubling of the Illinois dairy industry on the same area of land.

A great many intending buyers of feeder cattle are waiting for thin steers from the northwestern ranges to show up in the markets of the west in liberal numbers, believing that then they will be able to get cattle at much lower prices.

Montana range cattlemen report a big calf crop, and there are plenty of fat cattle in parts of the state where sufficient rains have fallen, but the drought in parts of Montana has ruined the feed and discouraged new settlers. Hay is up to \$20 per ton and is going much higher.

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.

July 21, 1910.

Receipts, 858. Market strong at last week's prices.

We quote: Best steers and heifers, \$6; steers and heifers, 1,000 to 1,200, \$5.50; steers and heifers, 800 to 1,000, \$4.50; grass steers and heifers that are fat, 800 to 1,000, \$4.50; choice steers and heifers that are fat, 500 to 700, \$3.75; choice fat cows, \$4.75; good fat cows, \$3.75; 4.25; common cows, \$3.25; canners, \$2.25; choice heavy bulls, \$4.25; fair to good bolognas, bulls, \$3.75; stock bulls, \$3.25; choice feeding steers, 800 to 1,000, \$4.25; fair feeding steers, 800 to 1,000, \$4.25; choice stockers, 500 to 700, \$4.25; fair stockers, 500 to 700, \$3.50; stock heifers, \$3.25; milkers, large, young, medium age, \$4.00; common milkers, \$2.50.

Bishop, B. & H. sold Mich. B. Co. 3 bulls at \$1.70 at \$4.25, 6 do av 925 at \$3.75; to Kamman 12 butchers av 903 at \$5, 2 cows av 945 at \$3.50, 4 do av 930 at \$4, 1 heifer weighing 750 at \$3.50, 3 butchers av 716 at \$4.50, 8 do av 725 at \$4.25; to Bresnahan 7 cows av 1,004 at \$3.50, 1 do weighing 830 at \$2.50; to Sullivan P. Co. 6 butchers av 670 at \$4.25, 1 heifer weighing 750 at \$3.50, 9 steers av 970 at \$5.50, 36 butchers av 625 at \$3.85, 1 bull weighing 1,000 at \$4; to Rattowsky 2 cows av 825 at \$3.40, 2 do av 805 at \$3.25, 5 do av 800 at \$4.25; to Goose 2 do av 920 at \$2.90; to Schlach 8 butchers av 700 at \$4.50; to Kamman B. Co. 16 do av 816 at \$4.50, 5 do av 830 at \$4.85; to Erban Bros. 1 bull weighing 930 at \$3, 3 do av 1,053 at \$3.75; to Kamman 4 butchers av 930 at \$4, 4 do av 716 at \$4.50, 8 do av 725 at \$4.25; to Hammond, S. & Co. 4 do av 717 at \$3; to Marx 4 do av 790 at \$4.75, 2 steers av 970 at \$5.40; to Goose 4 heifers av 375 at \$3.50; to Bresnahan 1 steer weighing 1,010 at \$5.20.

Roe Com. Co. sold Mich. B. Co. 4 bulls av 1,115 at \$4; to Gerish 9 steers av 934 at \$5.60; to Mayer 3 feeders av 843 at \$4.65; to Sullivan P. Co. 4 cows av 1,012 at \$4.10, 2 do av 936 at \$3.35, 2 do av 915 at \$2.50, 6 do av 855 at \$3.75, 6 butchers av 770 at \$4.65; to Mich. B. Co. 29 do av 760 at \$4.30.

Johnson sold Sullivan P. Co. 5 steers av 1,063 at \$6.60, 6 do av 908 at \$5.

Lovejoy sold same 5 heifers av 726 at \$3.90.

Spicer & R. sold Breitenback Bros. 31 butchers av 800 at \$4.70, 11 do av 715 at \$4.50, 3 do av 683 at \$3.50, 30 do av 818 at \$4.40; to Mich. B. Co. 16 steers av 1,072 at \$5.50, 9 do av 828 at \$5; to Hammond, S. & Co. 2 bulls av 1,345 at \$4.25, 2 cows av 1,045 at \$4; to Kamman 5 butchers av 794 at \$4.25; to Erban Bros. 4 do av 632 at \$4, 8 do av 604 at \$4, 7 do av 690 at \$4; to Goose 1 cow weighing 1,000 at \$3, 1 do weighing 1,020 at \$3.25, 2 steers av 750 at \$5, 5 butchers av 652 at \$3.50; to Sullivan P. Co. 15 steers av 893 at \$5.50, 3 cows av 1,083 at \$5.

Haley & M. sold Edelstein 24 cows av 964 at \$4; to Mich. B. Co. 5 steers av 800 at \$4.25, 28 butchers av 761 at \$4; to Lachalt 5 do av 754 at \$4.50, 4 do av 1,025 at \$4.65; to Rattowsky 5 do av 626 at \$3.85; to Applebaum 7 do av 686 at \$4.15, 4 cows av 1,105 at \$3.50; to Bresnahan 14 butchers av 732 at \$3.75; to Erban Bros. 6 do av 546 at \$3.50, 1 bull weighing 840 at \$3.85; to Goose 2 heifers av 500 at \$3.50; to Sullivan P. Co. 2 cows av 1,020 at \$4, 3 heifers av 593 at \$3.85, 10 bulls av 562 at \$3.50, 12 heifers av 715 at \$4, 2 cows av 1,030 at \$4.10; to Lachalt 2 bulls av 880 at \$4; to Regan 13 heifers av 574 at \$3.75; to Thompson Bros. 12 butchers av 683 at \$4; to Bresnahan 12 do av 572 at \$3.75.

Johnson sold Regan 10 butchers av 488 at \$3.75.

Downing sold Kamman B. Co. 5 cows av 865 at \$4.10, 8 butchers av 806 at \$4.50.

Johnson sold Gerish 3 steers av 843 at \$5.40.

Same sold Lachalt 4 steers av 725 at \$4.40.

Veal Calves.

Receipts 620. Market strong at last Thursday's prices. Best, \$9.50; others, \$4.875; milch cows and springers steady.

Bishop, B. & H. sold Bront 7 av 165 at \$6; to Hammond, S. & Co. 2 av 160 at \$6, 22 av 170 at \$9.25, 3 av 150 at \$6.50, 12 av 160 at \$9, 1 weighing 180 at \$6.50, 2 av 150 at \$9, 2 av 180 at \$6, 6 av 145 at \$9; to Sullivan P. Co. 6 av 135 at \$8.25, 4 av 155 at \$7, 18 av 165 at \$9; to McGuire 3 av 150 at \$7, 18 av 160 at \$9; to Newton B. Co. 19 av 160 at \$9.25; to Burnstine 14 av 185 at \$9.50, 15 av 175 at \$9.25, 6 av 155 at \$9.25; to Newton B. Co. 24 av 165 at \$9.25.

Haley & M. sold Newton B. Co. 6 av 225 at \$5.50, 6 av 135 at \$3; to Sullivan P. Co. 6 av 190 at \$6; to Parker, W. & Co. 10 av 249 at \$5, 8 av 130 at \$3; to Nowiskig 9 av 150 at \$8.50, 4 av 225 at \$5.25; to Mich. B. Co. 3 av 230 at \$5.50, 23 av 133 at \$8.50; to Markowitz 11 av 270 at \$4.50; to Burnstine 8 av 150 at \$9, 5 av 160 at \$9.25; to Markowitz 11 av 250 at \$4.50.

Roe Com. Co. sold Mich. B. Co. 5 av 155 at \$9; to Parker, W. & Co. 2 av 215 at \$5, 17 av 140 at \$8.50, 3 av 180 at \$5, 35 av 160 at \$8.75.

Spicer & R. sold Sullivan P. Co. 19 av 150 at \$8.75; to Mich. B. Co. 15 av 160 at \$8.65; to Parker, W. & Co. 2 av 245 at \$5, 10 av 143 at \$8.50; to Bront 6 av 155 at \$8.50; to Goose 6 av 230 at \$5; to Burnstine 3 av 150 at \$9.25.

Belheimer sold Sullivan P. Co. 7 av 175 at \$9.50.

Johnson sold Hammond, S. & Co. 10 av 156 at \$8.50.

H. N. Johnson sold same 4 av 145 at \$9.

Bohin sold same 5 av 200 at \$5.50, 15 av 150 at \$8.50.

Sheep and Lambs.

Receipts, 1,646. Market 50c lower than on last Thursday.

Best lambs, \$6.50; fair lambs, \$5.75; 6.25; light to common lambs, \$4.50; fair to good sheep, \$3.50; culis and common, \$2.00.

Bishop, B. & H. sold Sullivan P. Co. 28 lambs av 60 at \$5.75, 6 sheep av 95 at \$3.50, 12 lambs av 48 at \$4.50, 49 do av 70 at \$6.50, 15 do av 55 at \$5, 40 do av 68 at \$6.50, 17 do av 80 at \$5, 13 do av 68 at \$6.50, 5 yearlings av 80 at \$5; to Haise 31 lambs av 55 at \$6, 20 do av 70 at \$5; to Fitzpatrick Bros. 6 do av 70 at \$6.50, 3 sheep av 115 at \$4, 39 do av 60 at \$4, 65 lambs av 67 at \$6.50, 16 do av 55 at \$6; to Marx 101 do av 70 at \$6.50; to Barlage 56 do av 60 at \$6.25; to Fitzpatrick Bros. 16 do av 80 at \$6.25, 14 sheep av 68 at \$3.50; to Newton B. Co. 10 lambs av 70 at \$6.50; to Fitzpatrick Bros. 15 sheep av 70 at \$3.75, 13 do av 110 at \$3.75, 26 do av 90 at \$3.75; to Holloway Bros. 44 lambs av 70 at \$6.40, 64 do av 60 at \$6.25.

Spicer & R. sold Stoker 2 sheep av 110 at \$4, 12 lambs av 68 at \$6.50; to Brant 11 sheep av 70 at \$4.

H. N. Johnson sold Mich. B. Co. 24 lambs av 75 at \$6.

E. Johnson sold same 8 do av 75 at \$6.50, 10 sheep av 114 at \$4.

H. N. Johnson sold same 9 do av 140 at \$3.25.

Bohm sold Hammond, S. & Co. 16 lambs av 80 at \$6.50.

Haley & M. sold Newton B. Co. 2 sheep av 140 at \$3.50, 13 lambs av 75 at \$6.50; to Sullivan P. Co. 11 do av 55 at \$5, 3 sheep av 135 at \$3, 18 do av 101 at \$2.50, 32 do av 48 at \$4.50; to Youngs 74 lambs av 65 at \$6.25; to Thompson Bros. 32 do av 50 at \$5, 17 sheep av 100 at \$3.50; to Mich. B. Co. 10 do av 112 at \$3.50, 29 do av 90 at \$4, 13 yearlings av 75 at \$5, 47 lambs av 77 at \$6.50; to Eschrich 60 do av 65 at \$6.25; to Thompson Bros. 39 do av 70 at \$6.25.

Roe Com. Co. sold Mich. B. Co. 5 sheep av 110 at \$4, 76 lambs av 80 at \$6.50; to Barlage 6 do av 70 at \$6, 26 sheep av 125 at \$3; to Sullivan P. Co. 12 lambs av 75 at \$6.50.

Hogs.

Receipts, 1,209. Market 10¢ lower than last Thursday.

Range of prices: Light to good butchers, \$8.90; pigs, \$9; light yorkers, \$8.90; heavy, \$8.75.

Roe Com. Co. sold Sullivan P. Co. 28 av 155 at \$9.

Belheimer sold same 49 av 160 at \$9.

Bergin sold same 57 av 160 at \$9.

Spicer & R. sold Parker, W. & Co. 151 av 240 at \$8.80.

Bishop, B. & H. sold same 211 av 200 at \$8.90.

Haley & M. sold same 187 av 175 at \$8.90, 47 av 190 at \$8.85, 38 av 250 at \$8.75.

Bishop, B. & S. sold Hammond, S. & Co. 441 av 195 at \$8.90, 25 av 250 at \$8.75.

Friday's Market.

July 15, 1910.

Cattle.

Receipts this week, 1,672, against 923 last week; market dull at Thursday's decline; several loads holding over. We quote: Best steers and heifers, \$6.10; steers and heifers, 1,000 to 1,200 lbs., \$4.75; grass steers and heifers that are fat, 800 to 1,000 lbs., \$4.50; do, 500 to 700 lbs., \$4.25; choice fat cows, \$4.25; good fat cows, \$4; common cows, \$3.25; canners, \$2.50; choice heavy bulls, \$4.25; fair to good bolognas, bulls, \$4; stock bulls, \$3.50; choice feeding steers, 800 to 1,000 lbs., \$4.50; fair feeding steers, 800 to 1,000 lbs., \$4.25; choice stockers, 500 to 700 lbs., \$4; fair stockers, 500 to 700 lbs., \$3.50; stock heifers, \$3.25; milkers, large, young, medium age, \$4.00; common milkers, \$2.50.

Veal Calves.

Receipts this week, 1,119, against 987 last week; market 25¢ lower; best grades, \$8.75; others, \$4.85; milch cows and springers steady.

Sheep and Lambs.

Receipts this week, 2,424, against 1,384 last week; market dull at Thursday's close. Best lambs, \$7; fair to good lambs, \$6.50; light to common lambs, \$5.50; fair to good sheep, \$3.75; 4.25; culis and common, \$2.00.

Hogs.

Receipts this week, 2,462, against 3,985 last week; market steady at Thursday's decline. Range of prices: Light to good butchers, \$9.05; pigs, \$9.15; light yorkers, \$9.10; heavies, \$8.75; @9; stags, one-third off.

MIDSUMMER CROP CONDITIONS.

(Continued from page 64).

per cent below a year ago and 4.3 per cent below the average. The following tabulation is a summary for the United States of crop conditions on July 1, with comparisons, as estimated by the Bureau of Statistics of the United States Department of Agriculture:

Crops	1910	1909	1908	Av. 1910
Corn	85.4	89.3	82.8	85.1
Wheat	81.5	82.4	80.6	81.3
Sprg. Wheat	61.6	62.7	59.4	61.2
All Wheat	73.5	76.5	73.9	74.0
Oats	82.2	88.3	85.7	86.6
Barley	73.7	90.2	86.2	86.1
Rye	87.5	91.4	91.2	90.0
Flaxseed	85.0	95.1	92.5	91.1
Hay (all)	80.2	87.8	92.6	86.1
Hay, Timothy	79.2	87.1	90.2	85.4
Hay, Clover	82.8	83.8	95.5	86.6
Hay, Alfalfa	84.5	91.4	86.1	89.4
Hay, Millet	75.2	90.0	87.8	88.0
Pastures	81.6	93.1	94.6	91.8
Potatoes	86.3	93.0	89.6	90.0
Apples	49.6	54.6	57.6	53.0

Peaches	62.1	50.0	69.7	61.4	62.0
Pears	61.0	57.5	69.7	...	63.2
Grapes	80.2	90.2	87.9	88.5	...
Blackberries	77.0	88.8	90.5	*90.0	80.0
Raspberries	76.2	89.5	88.4	*88.6	79.2
Tomatoes	86.1	91.6	89.4	*88.0	...
Cabbages	88.6	90.7	88.3	*89.4	88.5
Onions	89.8	91.7	90.3	*90.6	91.1
Beans	88.4	89.1	90.0	*89.6	...
Sugar Beets	89.3	90.4	86.9	88.0	90.5

*Four-year averages.

The acreage of the cultivated crops, so far estimated by the Bureau of Statistics, is about 4.2 per cent greater than last year.

The preliminary estimates of acreage in 1910 and the final estimates for 1909, for important crops, are as follows:

Crop	1910	1909
Corn	114,083,000	108,771,000
Winter Wheat	29,044,000	28,330,000
Spring Wheat	19,742,000	18,393,000
Oats	34,380,000	33,204,000
Barley	7,057,000	7,011,000
Potatoes	3,521,000	3,525,000
Flax	3,103,000	2,742,000

VETERINARY

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

Impure Blood.—My dog went into water and remained in it too long last spring; since then he has not been right. His blood seems to be impure, for he breaks out in sores. J. H. Metamora, Mich.—Dust on sores equal parts boric acid, sulphur and iodoform. These applications should be made daily until the sores heal. Give dog five drops Donovan's solution at a dose three times daily.

Near Sighted.—We have a very intelligent shepherd dog that seems to be growing near sighted and gradually losing vision. His eyes are prominent but not clear. This dog has always been energetic and may have over exerted himself. M. E. Dansville, Mich.—Your dog is perhaps developing cataract, and if so nothing can be done for him, except giving 10 grain doses iodide potassium two or three times a day; this will possibly absorb the thickening or effusion causing his trouble. Apply equal parts extract witchhazel and water to eyes three times a day.

Partial Paralysis.—I have a sow with litter of pigs five weeks old that appears to be losing the use of her hind quarters, and I would like to have her treated. O. W. Lansing, Mich.—Feed her no corn; give her a teaspoonful air-slaked lime at a dose in feed two or three times daily. Also give 15 grs. salicylate soda at a dose three times a day.

Rheumatism.—I have nine pigs 10 weeks old that go lame occasionally and their joints swell; the whole trouble seems to be in their hind quarters, but I might say they have been fed some ashes, salt and sulphur. R. L. Leroy, Mich.—Give your pigs a teaspoonful of nitrate potash in milk or water once a day—this is enough for the whole litter and they should be given a dose once or twice daily.

Throat Polypus.—I have a 10-year-old horse that seems to be short of wind, and when exerted much chokes and falls down; he also bleeds from nose and I am at a loss to know how to treat a case of this kind. E. A. D., Eaton Rapids, Mich.—A surgical operation on the throat would perhaps relieve him; however, I am inclined to believe drugs would fail. You may try giving one dram doses iodide potassium in feed or water three times a day.

Bone Spavin.—My five-year-old mare has been lame all summer, caused by bone spavin. Our local veterinarian has treated her, but she is still lame and shows no improvement. What had I better do for her? W. J. Cedar Springs, Mich.—Without giving a spavined horse rest and keeping him quiet, treatment has very little effect, and a majority of cases do not get well. If you are obliged to use the horse, apply tr. iodine to hunch once every day or two, but if you can give him rest, blister; using any one of the spavin remedies that are regularly advertised in this paper. If driving or hard work causes spavin lameness, it is not reasonable to expect treatment to fail if you continue working the horse.

Scrotal Hernia.—Sweeney.—I have a male colt that was born with a rupture in the scrotum; he is now five days old and seems to be doing well. I also have a three-year-old colt that is sweetened in one shoulder, but not lame. Will doing light work harm the colt? A. K. Denton, Mich.—I have known hundreds of colts to come ruptured and recover without treatment, therefore you should give nature a chance to effect a cure before resorting to a surgical operation. Moderate work will not prevent your sweetened colt from getting well. Apply equal parts tincture cantharides, turpentine, aqua ammonia and sweet oil to atrophied parts three times a week.

Curb.—Last spring I bought a mare that is not less than nine years old, which has gone lame more or less ever since. She has a curb on each hind leg, but is lame only in right. I have treated her for whirl-bone lameness without satisfactory results. I find no swelling in the leg only on back part of hock. C. D. North Star, Mich.—Apply one part red iodide mercury and eight parts lard to back part of hock twice a week.

Roarer.—My five-year-old gelding had an attack of pneumonia last spring; he also had throat trouble, and ever since his glands have remained swollen. Our local vet. blistered him, with rather poor results. When exerted some he breathes much like a broken-winded horse. Z. M. Jackson, Mich.—Apply equal parts tincture iodine and camphorated oil to enlarged glands once a day and give one dr. iodide potassium at a dose in feed or water three times a day. He would breathe more comfortable if the head was reined up with over-check and independent bit; by allowing the nose to pull in close to breast he is more likely to choke and make noise.

Horse Owners Should Use

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Caustic Balsam

The Great French Veterinary Remedy.

A SAFE, SPEEDY AND POSITIVE CURE.



Prepared exclusively by J. E. Gombault, ex-Veterinary Surgeon to the French Government Stud.

SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce any scar or blemish. The safest best Blister ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses or Cattle.

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Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS CO., Cleveland, Ohio.

H-E-C

Medicated-Tonic STOCK SALT

The Great Worm Exterminator for Worms in Horses, Sheep, Hogs and Cattle.

Regulates the Stomach, Kidney, Liver and Bowels. Put up 5 lbs. 25c; 10 lbs. 50c; 20 lbs. \$1; 50 lbs. \$2.50. Ask your dealers everywhere.

Jackson Grocery Co., Jackson, Mich.

(STATE AGENTS.)

Do you know that your animals are taking up from the pasture the germ or eggs of the worms that will breed and develop during the winter months. Kill the germ in the stomach, this can be done by feeding H-E-C Medicated Tonic Stock Salt in the pasture. For sale by all Grocers and Druggists H. E. COBB CO., Brooklyn, Michigan.

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Makes the horse sound, stay sound

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The first or second \$1.00 can cures. The third can is guaranteed to cure or money refunded. \$1.00 per can at dealers, or express prepaid.

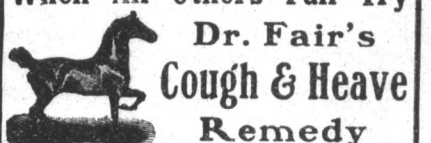
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ABSORBINE

HOME AND YOUTH

THE RECLUSE.

BY E. SOUTHWATE BALDWIN.

'Tis he who looks into the faces of men,
the while
Perusing their souls—looks deep in
woman's eyes.
And sees Deceit lurking beneath her
smile—
So often Beauty's treacherous disguise.

'Tis he who beauty sees in humble flower;
In every cloud or sunbeam's ray; in
Youth's
Delight, and Age's supreme content;
each hour
A lesson learns, in great unwritten
truths.

Apart from men, in silence like a tomb;
In sacred solitude, bereft the gloom
Of loneliness, he slakes his thirst from
fount
To men unknown; climbs not the path-
worn mount,
But searches wilds for Nature's wondrous
store
Of truth revealed in God's exhaustless
lore.

THOSE ANTI-LAZINESS GERMS.

BY ANNA GIRMUS.

Dr. Von Spankem's head was not ad-
justed at the usual, "it's so and you can't
deny it" angle. The light came he carried
in his hand came down viciously again
and again on the spears of grass that had
escaped the blade of the lawn mower.
The doctor had always insisted that any
being who claimed the title of man should
have will power enough to keep his mind
from dwelling on the profitless and un-
attainable. It would be hard to decide
which annoyed him the more, the fact
that Grace Englis was so often the sub-
ject of his thoughts, or that he did not
prevent such thoughts from returning.

Suddenly there came the sound of pat-
tering feet behind him, the impact of a
rather solid body on his legs, and down he
fell full length on the slippery cement
walk. He arose with the usual haste of
the person meeting with such an acci-
dent. Before he had fully straightened
out his six feet of height, the subject of
his perplexing thoughts stood before him.

"Oh! is it you, Dr. Von Spankem?" she
inquired anxiously. "Are you hurt?"

The doctor resented the tone. He was
not so old that a little fall on the walk
should be treated as such a serious
matter.

"Not hurt at all," he answered cheerily
as he pulled down the knees of his trou-
sers, "but was that Zip?"

"It certainly was and I am truly sorry.
Are you sure that you are not hurt?"

Again that note. He felt like slinging
the cane in his hand after the animal that
had caused the catastrophe. Instead,
however, he smiled his "perfectly certain,
but I never suspected that Zip possessed
such speed."

They caught a glimpse of the pug on
the other walk, in hot pursuit of squirrel
which could not get time to climb a tree.
The man watched the proceeding with a
keen satisfaction.

"I don't see what ails him lately," com-
plained the girl. "He's not himself at
all. He's so nervous and active. I took
him to Huntsmen last week. He gave
him some soothing syrup, but that did no
good. He's positively growing thin and
you know how hard it was to keep him
from killing himself with fat?"

"I should think that you'd be glad. He
was so awfully lazy. I don't see how you
ever tolerate such a bundle of laziness.
Of all animals I do believe the pug is the
laziest, and Zip the very laziest of his
kind."

"You see, he was given to me," Grace
defended herself. "Then you know they
say that we admire those traits that we
do not possess and I have never been ac-
cused of dignity. Zip surely is dignified
and until recently no one ever accused
him of being in a hurry."

The doctor remembered that Fred St.
John had been the former owner of Zip.
No one would think of accusing that
young man of undue haste. Was that
why he was in such constant attendance
at the Englis home? Did Grace, who
was all energy, like that big lazy lout be-
cause he never was in a hurry, never
would do anything?

"I really am worried about him," con-
tinued the girl. "He's so energetic lately.
He chases cats, has a big hole dug in
the back yard and does all sorts of
things."

"That's good." The doctor brought his
thoughts back to the dog. There was a
peculiarly satisfied accent in his voice.
"How did it happen?"

"The first time that we noticed any-

thing strange about him was the night
that he chased the burglar in the dining
room. He woke us up with his furious
barks. Father hurried down stairs to
catch a glimpse of a man crawling out
through the dining room window. Zip
stood in the center of the room viciously
tearing at a piece of gray woolen goods.
That's a week ago. Why, it was the
night after you had taken care of him
for me." Suddenly her eyes rested search-
ingly on Von Spankem's face. She sat
down on the nearest bench. "Sit down
doctor," she invited. "What did you give
Zip?"

Dr. Von Spankem tried to look inno-
cent, but he knew from past experience
that he might as well tell all without de-
lay. He knew her since the day, long
ago, when he was not as busy as now
and she had come to him asking that he
fix her kitten's leg like he had Uncle
Charlie's when it was broken. They had
become warm friends over that mem-
orable operation.

"Well, Miss Grace, since you must
know, I might as well confess at once."
They both laughed merrily. For the time,
Fred St. John was not. "Zip was really
killing himself with laziness so I inocu-
lated him with a few of my new anti-
laziness germs."

"And you never told me." She stooped
to pat Zip on the head. "You poor dog-
gie," she murmured. "But it's a sin to
kill the pretty squirrels."

Zip's tail, which had grown almost
straight, wagged furiously as he laid the
pretty squirrel at the feet of his mistress
with no sign of contrition.

"What an odd idea, doctor." She slowly
straightened up and gazed at her com-
panion with a new interest. "Will those
anti-laziness germs act on human be-
ings?"

"Certainly. That's why I have been
working on the subject these past five
years. You see there are so many people
in this world, perfectly able to work, who
are too lazy and who compel others to
work for them. Often those who labor
are really physically unfit for the task
while some strong, healthy curmudgeon
does nothing. Like Ike Williams, great
big lubber, eating the provisions that puny
Mandy earns by washing." The doctor's
tones were full of unutterable contempt.
"Long ago I came to the conclusion that
such undue laziness is caused by some
physical defect. After careful study, I
learned that its origin is the presence of
germs in the human system, and science
demands that it be treated like any dis-
ease."

"Won't it hurt the mental ability of
the patient?" Grace inquired.

"I think not. I am certain that it will
not. Ike came for the laundry the other
morning. When I asked him about his
present occupation, he complained so
much about his backache that I offered
to see what I could do for him. He re-
monstrated, but I led him to the labora-
tory, examined his back and, before he
was aware of my intentions, had him in-
oculated. The same afternoon I saw him
at Henderson's mowing the lawn. He
was doing a quick, neat job of it, too.
In fact, he was hurrying so that he ran
into me and almost knocked me off the
walk."

Miss Englis's eyes shone merrily.
"Seems to me, doctor, you are getting
the worst of your energy-imparting po-
tions," she remarked slyly. "If this
proves a complete success I suppose you
will immediately inoculate, or cause to
be inoculated, all the lazy people 'willy
nilly.' What if some deluded creature
should object vigorously?"

"That class of people never do anything
vigorously, but we would inoculate any-
way, just as we do for smallpox. Those
lazy persons are a menace to society."

Grace laughed heartily at the doctor's
vehemence. "Dr. Von Spankem, are you
perfectly certain that it will not hurt
one?"

"Perfectly sure. Do you think that
you need inoculation?" He looked at
her quizzically.

"I was thinking of Fred St. John.
You know he's real nice, kind, jolly,
obliging, good-looking and all that, but
he does seem to lack ambition. Of
course he is rich and it does not matter
much, but father objects to him so
strongly. Poor old-fashioned daddy in-
sists that a man who can not do a
day's work at something has no busi-
ness getting married. He says he'd not
care if it was splitting wood, if Fred
only showed a willingness to work he
would remove all objection. If those
germs produce as big a change in the
human system as they have in Zip—
if you could inoculate Fred?" she look-
ed anxiously at her companion.

Von Spankem did not flinch. So it
was all settled, and only her father's
objections kept the two apart, and he
was to remove the cause of those objec-
tions. "But he has not asked me to
inoculate him," he finally protested.

"Neither did Ike?" reasoned Grace.
"That's different. Fred is not depen-
dent on anyone. He can afford to be
lazy."

"Seems to me I have heard you say
that money excuses no man from doing
his share in the world's work."

"Yes, but this is different," he argued
weakly. "I—I don't see how I'd get the
opportunity. You can't very well walk
up to a man like St. John and say,
'Here, you lazy cuss, you need inocula-
tion.'"

"But you'd vaccinate without his con-
sent."

"Well, the law gives us the power."
Grace tapped the walk with the toe
of her shoe. "We'll be a law unto our-
selves," she decided. "If Fred would
only get sick or something, then you
would have your opportunity, but he
is so horribly well. Couldn't you give
him something to make him sick, just
a little, make his head ache? He's a
fearful baby. If his head should ache
the least bit he'd think he was dying."

The doctor studied her in silence.
How could she care for such an aimless
creature as Fred St. John? But she
did, and her happiness depended upon
arousing any latent ambition that that
young man might possess. And if she
cared so much for him in his present
state, what would be the result if he
were to prove himself really a man
with vast numbers of day's work stored
up in his anatomy? On the other hand,
there was the possibility that she
would lose all interest in her lover as
soon as he demonstrated that he pos-
sessed real energy. She had just advo-
cated the theory of opposites.

"Well?" she inquired.
"I suppose it could be managed," he
admitted.

"Of course it can if you'll help me.
Fred is coming to dinner this evening.
You must come, too. I'll see that he
gets the stuff to make his head ache,
if you give it to me, and you must be
there with the germs."

"Seems to me that you are rushing
matters."

"Well, what's the use of waiting. I
am so tired of hearing father scold."

"If it must be, I suppose it might as
well be attended to at once." He arose
rather slowly and smiled grimly down
on her.

"I know you'd understand. You'll
give me the stuff for the head-ache
now, won't you?"

The two slowly walked through the
park and down the street to the doctor's
laboratory.

"This is perfectly harmless," he as-
sured her as he measured out a white
powder, "but I am not so certain that
we ought to inoculate him."

"Oh, I am," she answered energeti-
cally. "I'll take the responsibility for the
act upon myself."

After she had gone the doctor sat
down before his test tubes. So she
had decided to marry St. John? It was
only natural. There was about the right
difference in their ages. He checked
a sign as he thought of his own fortieth
birthday, which was already appearing
above the horizon.

Grace Englis had been only a child
to him until she had returned home
from school a year ago. Then a change
crept into their relations. He had
learned that success in his profession,
and he had been very successful, was
not all sufficient. There were other
things in life even more desirable. Sud-
denly his years became an insupportable
burden. Not that he was weak or felt
the ravages of old age creeping upon
him, for he was as strong as a man
should be who had taken the care to
guard his health, but Grace was twenty-
four and he was nearing forty.

Putting on his hat he started for the
office. Dr. Travis was there before him,
but both were busy the entire after-
noon.

In a sub-conscious way, the inocula-
tion of Fred St. John troubled the doc-
tor. He could not decide whether to
go to the Englis home and perform his
part, or to send an excuse and stay in
his laboratory. Six o'clock, however,
found him at his neighbor's.

Mr. Englis greeted him heartily and
led him to the library to reveal some
philanthropic hobby, while Von
Spankem rebelled inwardly against
those forty years that kept him from
the young people. At dinner, however,
he entered so animatedly into the dis-
cussion of golf, auto parties and the

Aids Nature

The great success of Dr. Pierce's Golden Medical Discovery in curing weak stom-
achs, wasted bodies, weak lungs, and ob-
stinate and lingering coughs, is based on
the recognition of the fundamental truth
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last reception, for socially he was rather a favorite with the younger set, that he forgot birthdays.

"What's the matter, Fred," inquired Flora Englis, Grace's young cousin, anxiously, as the family with their guests gathered on the porch. Dr. Von Spankem had lingered a moment to learn the time when Grace had given the white powder.

"We must wait a half hour," he explained. "The effect of the stuff will begin to wear off and he will think that the injection is relieving the pain." "I'm afraid that I shall be very sick," Fred was complaining, as the two conspirators joined the group. "This is awful. I must get home. I'm in for it, I know. Doctor, can't you give me something? My head! Oh, my head! I can't stir it hurts so."

The doctor took the sick man's temperature, examined his tongue, counted the pulse beats—and he took time to do it. It gave him great satisfaction to hear the big fellow complain like a little child. The fact that Grace was there to hear the moans did not detract from that satisfaction.

"I haven't anything much with me," he said, "but I think that an injection of this will give you relief." He took a tiny bottle from his pocket.

"Oh, all right! Give it to me quick. I can't stand this a minute longer," wailed Fred.

"Now, that's better," he announced a few minutes later; "that's great stuff. I think that I can go home soon. Will it be safe, doctor?"

"Oh, yes," the man of medicine assured him. "You'll be all right by morning."

"Maybe you could go with me and give me another injection if I should need it?"

"It's not at all necessary. You'll not need another."

A half hour later Fred had started for his rooms and the doctor was saying good-night to Grace. "Are you certain it will not hurt him?" she inquired anxiously. "He appeared so sick."

"Oh, that was the powder. He is all over that by this time."

Later, when he sat before the table in his laboratory, he was not so certain. "Pshaw!" he growled at last, "it did not hurt like and it will not hurt him."

He took from the drawer in the table a neatly prepared paper and began to read. It was the report of his researches on the cause of laziness and its cure. Tomorrow he was to read it before "The Medical Fraternity," and it was not quite finished. In a moment he laid it on the table and gazed before him. He felt a strong distaste for his task, but he knew that the paper must be finished, for the morning was to be a busy one.

A test tube in the rack attracted his attention. He shook it and watched the rich golden globes settle slowly to the bottom. Replacing it he turned again to the paper, but his mind would not be forced to dwell on it. Impatiently he shoved it to one side, gazed at the tube a moment, took from his pocket the tiny syringe, filled it with the liquid and pressed the needle to his arm.

"Is that Miss Englis?" he inquired weakly. He had been awake for some time.

"I'll see," answered the nurse, stepping out into the hall.

"Yes," she reported.

"Please tell her to come up. I want to see her."

"But you are too weak."

"I am all right now. Please tell her to come up," the old ring of authority had come to his voice.

The other doctor gave him a look, noted the firm voice and supported the command. "Glad you're so much better," he congratulated his patient. "You don't need me any more. You'll get well rapidly, but I'd advise you to take a month's rest. You have been working too hard."

"Oh, but I am so glad that you are better," Grace murmured as she hurried to the bed.

"Is that cord quite strong?" inquired Dr. Von Spankem, gazing at the silk rope to which Zip was attached.

"Yes, quite strong."

"Then, if Zip is as lively as he was the last time I saw him, fasten it to that hook in the window sill."

Grace laughed merrily, but she did his bidding.

"My, but you have given us an anxious week!" She was looking down at him.

"Was it a week?"

"Of course. Didn't you know?"

"I'm afraid not. I became aware of time only several hours ago when they

gave me medicine. I went to sleep and woke about an hour ago. The last that I remember is the evening at your house." He looked hurriedly about the room. "Are they gone?"

"Yes."

"Are we alone?"

"Yes, excepting Zip."

"How is Fred?" he inquired eagerly.

"Fine. He's settled down to business in great shape. In some way, he did some speculating. You know I have no idea how such things are done. In a few days he cleared a half million. Father lost several hundred thousand by the deal, but he does not care at all. He has removed all objections and they are to be married in June."

"They!" the doctor gazed at her blankly.

"Why, yes. Florence and Fred, of course. That's what I was working for."

"But I thought it was you. I never thought of Florence."

Grace regarded him with the look that comes to a woman's eyes when the man she loves tries to marry her to some other fellow.

"How should I know? Why Florence appears such a child. She never entered my mind."

"You see father is her guardian and, although she is of age, she did not like to oppose him," Grace continued indifferently.

But the man read her face eagerly. His thin white hand reached up to hers. "Sit down here," he whispered. Then the other thin hand clasped her other hand.

"There is one thing I want you should do for me," he begged a half hour later. "Please go to the laboratory and if you find a test tube full of a brown liquid, in the rack on the table in the center of the room, empty the liquid into the sink, turn on the water for about fifteen minutes and smash the tube. Then burn the manuscript that's lying on the table."

"All right," she assented, "but that's not your anti-laziness serum?"

"That's it. That night after I left you I felt as if I could not do a thing and I had work that needed finishing, so I inoculated myself. I have no recollection of what followed. I only know that I suffered intensely and that I shall never use it again."

"But you were exhausted, not lazy," argued Grace.

"I might make the same mistake on others. Please let me know when it's destroyed."

She went to the laboratory, but she was spared the trouble of destroying the liquid. The table, minus one leg, lay in one corner. Not a whole test tube could be found. The evaporating dishes were tiny bits of china. The floor was covered with the manuscript reduced to infinitesimal flakes of paper. The fine electrical machine—the doctor's special pride, for it was constructed according to his own model—was a complete wreck.

She closed the door and returned to make her report.

SMILE PROVOKERS.

A society girl was out on a ranch recently. Upon her return, her mother asked if she had seen any little chickens out there. "No," replied the girl, "the woman told me none had been hatched yet, but she had four hens seated."

"Missus, do you need a hired man?" "Well, yes; I'm looking for a man who can do the chores, sweep and clean the rooms, be polite and never impudent."

"Say missus, youse is looking for a husband."

The day before she was to be married the old negro servant came to her mistress and entrusted her savings in the latter's keeping.

"Why should I keep it? I thot you were going to be married," said her mistress.

"So I is, missus, but do you 'spose I'd keep all dis money in de house wid dat strange niggah?"

"Did you have a pleasant time at the picnic, Ronald? I trust that you remembered to masticate each mouthful one hundred times."

"Yes'm, an' while I was chewin' my first bite the boys et up all the grub."

A colored woman heard sounds of distress in her neighbor's cabin, and rushing over, found the small son writhing on the floor, his mother bending solicitously over him.

"What-all's de matter wif de chile?" "I spects it's too much watermillion," responded the mother.

"Ho! go 'long wif ye! Dev cyan't never be too much watermillion—der ain't 'nough boy!"

Which wheat did you raise?

Were there forty good, sound, heavy kernels to the head or fifteen light ones? Was the straw big and weak? Did the crop lodge? Did it rust? Was the yield fifteen bushels less than it might have been? Did you get the best possible return for your time, labor and trouble?

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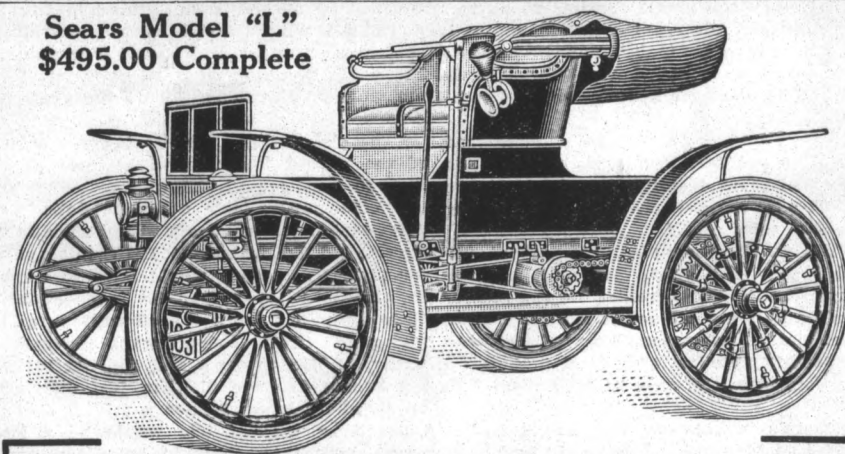
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THE MICHIGAN FARMER, Detroit, Michigan.



Woman and Her Needs

At Home and Elsewhere

"BETTER STOP YOUR KICKIN' SMILE A BIT, INSTEAD."

"Better stop your kickin'.
"Won't help things a bit.
The kind of weather that you've got
Is the kind you're going to git."

The above is the motto of a girl whose hard luck is a byword to all her acquaintances. There isn't a girl in her entire set who has had so much bad luck as she, and yet she is the jolliest girl of the crowd and the hardships she endures are apparently more a source of grief to her friends than to herself.

Within a few years she has lost father and mother, three sisters and a brother, the family home, two positions that promised well, besides numerous other things which would worry most of us half to death, but which, beside her other trials, were really too small for her to notice. Yet this girl always has a smile and a joke when in company, and no matter how much she may bewail her fate in private no one ever hears a word of complaint.

It isn't because she is so shallow that she does not feel her losses either. She does feel them deeply. But she is a firm believer in the principle of keeping your troubles to yourself.

"What's the use of talking about my bad luck?" she asks. It isn't going to get me anything. Dwelling on the matter won't help me a bit and it will only make other people uncomfortable. Why, if you go round growling and fault-finding all the time everyone gets so they don't like you.

"There's my sister. She hasn't had a bit worse luck than I have, it has been just about even up. But she has thought about how hardly she was used all the time and talked about it so much that she has got so sour the children in the street yell 'Hello, lemons,' after her.

Say, she is always kicking about something and she is losing all her friends.

"I can't see anything in that. I don't want to lose my friends, too, along with my other losses, and I soon would if I was always complaining. Besides, I'm not the only one in the world who has had bad luck. Just suppose I had lost a leg or an arm or my sight, or had gone and got tuberculosis? I always think of someone worse off every time I begin to get the blues. When I think of my poor complexion, I always think, 'Well, thank goodness, I don't have a harelip.'

"I get a lot of fun out of life that way, and it is a heap more comfortable than it is to not have any fun at all. Just because I've missed some things in life I don't see why I need miss everything that is good and spend my time croaking. I'm going to enjoy what there is left for me, and let some one else do the grumbling.

"There's working, for instance. Most of the girls I know growl because they have to work for a living and get down to the office every day at eight bells. I don't feel that way at all. Why shouldn't I work, I'd like to know? If I didn't work for myself some one would have to work for me and I'd rather be independent. This sympathy for the poor working girl makes me tired. I don't want any sympathy. I like to work and I'm not kicking because I have to. I'm just offering up thanks because I have a job. I fancy that to be without one would be a lot worse luck than it is to have one and have to work to hold it.

"No, sir, you'll never hear me kicking. I know too well it won't get me anything. I'll just take the fate that is handed out to me and grin."

DEBORAH.

Michigan Country Women as Money Earners.

No. 9.

Floral Culture Is Both Enjoyable and Remunerative.

Plainwell, "the prettiest village of Michigan," boasts of a woman florist, Mrs. Florence Foster. Her beautiful home and grounds are known as Foster Park. From early spring, when the crocus peeps up and shows its modest head, until fall, when Jack Frost comes to destroy the last blossoms, her lawn is a veritable bower of beauty.

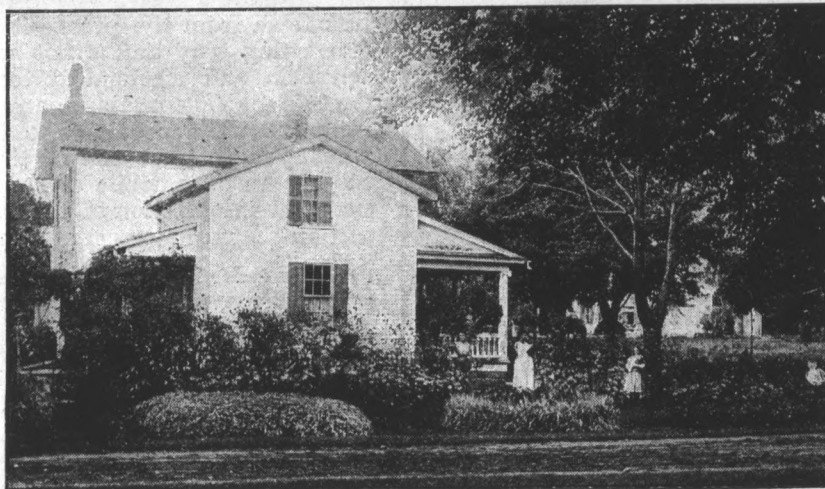
Mrs. Foster started into the business eight years ago with only a few plants and seeds. She is a great lover of flowers and of the beautiful, a person of discriminating taste and of great perseverance, so that in just a few years she has built up a business which amply repays her for the time and labor spent. She has always done all of the work connected with the business except the heavy spading and cultivating of the beds.

The first flowers which she sells in the spring are tulips, hyacinths and daffodils, all colors and all kinds. She sells pansy plants and the flowers also.

Decoration Day is "Mrs. Foster's day" in Plainwell. For many days before she is kept busy filling orders. Her telephone rings continually. She always has one or two large shipments of geraniums and other potted plants from Detroit, Grand Rapids or Kalamazoo. These she sells for 15 cents and up apiece. The geraniums all have one large flower and a bunch of buds. She has potted foliage plants, some selling as low as 10 or 15 cents each, sometimes two for 25 cents. She also has shipments of all kinds of cut flowers and special wreaths, etc. One may also choose from the flowers she raises and she will make up the bouquets, wreaths and sprays for a reasonable price. She always has to work very hard on this day but she is always kind and courteous to all. She does much good with her flowers. Many sick and afflicted hearts have been cheered and comforted by her beautiful offerings.

During the summer she raises nearly every plant that one could mention. Ev-

ery available inch of her lot is utilized for some purpose. There are beds of color, of green, of white and green grasses, of cannas, gladiolas, dahlias, sweet peas, nasturtiums, golden glow, bridal wreath, great hydrangea shrubs, syringa and rose bushes, and many, many others, the names of which would sound like Greek to most of us. Perhaps the most beautiful of her flowers are the as-



Mrs. Foster's Home and Gardens.

ters. She has given these special cultivation until she has two very choice varieties, the Florence Foster aster and the Royal Stripe. The latter is purple and white, very beautiful and nearly as large as a chrysanthemum. She was given a large sum of money by Chicago parties last year for the seed of the Royal Stripe. Her funeral work is very remunerative. She furnishes flowers for funerals in many of the surrounding towns and cities even. Instead of ordering directly from the greenhouses people order through her. When it is possible, she goes in person

and delivers and arranges the flowers in the homes or churches, wherever the services are held. Her good taste and tact are shown in this work more than in any other. Occasionally she sells and arranges the flowers for weddings, banquets, receptions and other social gatherings.

Any woman on a farm can do what Mrs. Foster has done if she has a telephone and lives within a reasonable distance from a railroad station. As proof that there is a field for such work in the country it may be said that a goodly share of Mrs. Foster's patrons are people from the surrounding farm country.

Indeed, a woman on the farm could do even more because she could have more ground to cultivate and more help in her work. Most of the plants could be arranged in rows for horse cultivation. A very small amount of money and a large capital of energy and perseverance is all that is needed to start into the pleasant and paying business of raising flowers.

There are several magazines which one might read and find very helpful. Most of them are classed as farm papers so it may be readily seen that floral culture is considered a farm occupation afloatna considered as much a farm occupation as a city one.

SEVENTEEN CHILDREN SENT TO COUNTRY.

Farmers Entertain City Poor for Fresh Air Society.

Thanks to the generosity of Michigan farmers, the Michigan Fresh Air Society sent seventeen boys and girls to the country for a bit of vacation, within one week after the society began its work. Out of the thousands of children in Detroit who need pure air and freedom, seventeen is a tiny number, but when we stop to think the average district school is made up of about this number of boys and girls, it seems quite a respectable showing.

Of the seventeen, nine were from the Home of the Friendless, an institution which cares for many "friendless" boys and girls. Mrs. D. J. Johnstone, of Flushing, took five boys and four girls from the Home for a week's outing, but at the end of that time she was so pleased with her young guests that she wrote in asking to keep the whole nine for another week! So the party is still on.

The boys and girls are equally well pleased with their outing. They have written Mrs. Grant, matron of the institution, telling her what a fine time they are having. One little girl was filled with joy over a five-mile ride she had taken.

Besides the party which went to Mrs. Johnstone, Mrs. and Mrs. A. E. McIntire,

CHANGE

Quit Coffee and Got Well.

A woman's coffee experience is interesting. "For two weeks at a time I have taken no food but skim milk, for solid food would ferment and cause such distress that I could hardly breathe at times, also excruciating pain and heart palpitation and all the time I was so nervous and restless.

"From childhood up I had been a coffee and tea drinker and for the past 20 years I have been trying different physicians but could get only temporary relief. Then I read an article telling how someone had been cured by leaving off coffee and drinking Postum and it seemed so pleasant just to read about good health I decided to try Postum in place of coffee.

"I made the change from coffee to Postum and such a change there is in me that I don't feel like the same person. We all found Postum delicious and like it better than coffee. My health now is wonderfully good.

"As soon as I made the shift from coffee to Postum I got better and now all of my troubles are gone. I am fleshy, my food assimilates, the pressure in the chest and palpitation are all gone, my bowels are regular, have no more stomach trouble and my headaches are gone. Remember, I did not use medicines at all—just left off coffee and drank Postum steadily."

Read "The Road to Wellville," found 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.

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and cause 2165 out of a total of 2560 fire losses to farm buildings during one year in one state, according to an official report of 111 fire insurance companies.

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should write to the Michigan Fresh Air Society, 69 Lafayette Boulevard, Detroit. The society pays all transportation and expects the country folks to furnish nothing but board. References are required that the society may know the kind of homes the children are being sent to.

DRYING GREEN VEGETABLES.

BY LAVILLA W. MACOMBER.

Many of the green vegetables such as peas, string-beans, sweet corn, etc., are more easily dried than canned, and more healthful if canning-powder is to be used, since the powder by reason of its preservative qualities, renders the vegetable more or less indigestible.

Drying Green Peas.—After the peas are shelled and washed, turn into a kettle of boiling water and let boil briskly for one minute. Pour off the water and spread the peas on a drying-frame in the open air or on platters to dry slowly in the dry-oven. The one minute scalding is an important part of the process. If the peas are dried without scalding they will not soak out again. When wanted for use in winter, let the peas soak over night in water and throw into a kettle of boiling water to which has been added a fourth of a teaspoonful of baking soda. Let boil ten minutes to soften the skins which have been rendered tough in the drying, pour off water and finish cooking in your favorite way.

Drying String Beans.—Pick off only very tender pods and snap off the ends, breaking into inch lengths. Drop into boiling water for one minute; pour off water and spread out to dry. When wanted in winter, soak over night and if you do not like the "beany" taste, cook in soda water as directed for peas; pour off after ten minutes and finish cooking in clear water.

Drying Sweet Corn.—The sweet corn should be freshly picked to retain sweetness. After husking and silking the corn, throw into boiling water and cook one-half hour. Lift to a pan and cool, score the length of the cob with a sharp knife and press out the kernel with a downward stroke of the edge of the knife. In this way the hull of the kernel is left on the cob. When wanted for use it may be ground into meal with the aid of a food-grinder and made into a thick soup, or cooked whole after soaking awhile.

Drying Okra.—Use only young tender pods and plunge, after washing, into boiling water to which has been added a half teaspoonful of salt to a quart kettle of water. Boil one minute and split the pods lengthwise. Dry thoroughly and when wanted for use soak over night in water.

A cheap drying-frame may be made by tacking white cheesecloth on an old screen-door frame, spreading over it a white mosquito bar to prevent flies from getting in. If a storm comes up it may be easily gathered up and the drying process finished in shallow cloth-lined pans in a slow oven, as, in the case of sweet corn drying, the wet corn might sour over night.

SHORT CUTS FOR HOUSEKEEPERS.

When your feet are tired from ironing or standing all day try changing your shoes and stockings. It is a rest.—M. A. B.

On a busy baking day when the range oven is full to overflowing, try putting the gasoline oven on top of the stove and see how much faster things move.

Brooms wear much better if soaked in strong soapsuds for an hour or two while new. Let the suds come well up over the brush. It softens the straw, and removes some of the dye, which tends to make the brush break easily.—Mrs. E. G.

Common field thistle leaves steeped and drank, will cure neuralgia.—Mrs. H. G.

When frying eggs, instead of standing by the stove to dip the fat over them, put in a table spoon of hot water and cover quickly for a few minutes. They will be perfectly done without a wrinkle in them.—Mrs. G. A. R.

The greatest help on wash day is plenty of household ammonia. First, put some in the warm suds in which the clothes are put to soak; then rub soap on the extra soiled pieces, pour on more ammonia, roll up, and tuck down under the suds. Cover the tub over closely and let soak an hour or two, or over night, as convenient. A little good pounding, right in the tub, and the dirt will come out like magic. Scarcely any rubbing will be needed. Rinse well in plenty of hot water and hang up. No boiling, nor fussing, and clothes as white as snow.—F. R.

THOSE UNINVITED GUESTS.

I would like the question discussed in your columns, about uninvited company. Yourself, or other members of your family are in no way obligated to them. Is it right or just, when you can scarcely drag around and do your own work, overworked beyond the limit of endurance, not able to hire help, even if you could get them, is it just for company to be making arrangements, and know they are intending to come, for several weeks, never to inquire if it will be convenient? When the doorbell rings you are supposed to greet them with smiles and entertain them as long as they see fit to stay. I enjoy company, but these "hangers-on," how can they have the heart to do as they do? Nearly every family has them.

Hillsdale.

Tired Mother.

THE KITCHEN SLATE.

BY MARY ROLOFSON.

No kitchen is complete without a slate with pencil attached, hanging within easy reach. The home-maker has so many things to do, and many of them very little things, that she cannot help forgetting some of them; or if they are not entirely forgotten they are not thought of at just the time when it is easiest to do them.

A list of things to be bought should go on this slate and each should be written down as soon as the supply runs low. This would prevent one's being out of salt or thread, or ink, or any household necessity; and it would prevent the usual cudgeling of wits and memory when the grocer's boy comes around or when one goes to town.

If you borrow a book or a pattern, or if someone borrows something of you, put that down on the slate. The article will stand more than ordinary chances of being returned. A bit of mending to be done, outside of the regular weekly work; something to be hunted up, or to be put away; reminders of a note to be written or a call to be made—all these belong on the slate. And as an aid to letter-writing the slate will be found very helpful. Who has not had the experience of having a great many things in mind to write to a friend when a washing or a baking was on hand and the writing could not be attended to? Perhaps by this time you had a chance to write the letter you did not feel in the mood for it and could not think of half you had wanted to say. A few notes on the slate put down when your mind was fresher and more active would be a boon.

THE USE OF PARAFFIN IN CANNING.

BY ELLA E. ROCKWOOD.

By the use of proper precautions in preparing fruit for canning there should be very little loss from fermentation. Sterilized jars, new rubbers and perfect fitting covers are necessary. Fruit which is not over-ripe is another necessity, since it is very difficult to totally destroy the germs of fermentation once they have formed. The rubbers, of course, are for the purpose of excluding the air and old ones are almost sure to cause trouble since after one year's use they are apt to become hardened and render the sealing imperfect.

I think I am safe in saying that the loss from fermentation of canned fruit may be reduced to practically nothing by observing these directions, followed by a liberal coating of melted paraffin around the outside of the can at the top. Since beginning this practice I have not lost a single quart of fruit. I fill the jars as usual to overflowing, screw the caps on tight, and allow the jars to stand until cold, tightening the covers as the glass shrinks. Then the tops of the cans are either plunged in a cup of melted paraffin or the latter is poured around all sides of them with a spoon, ensuring a perfect seal as the wax cools. Fruit sealed after these directions will keep indefinitely. cost of the paraffin is so slight as to be almost nothing. It can be purchased at any drug store for a few cents a pound.

I have found that pouring the melted paraffin over the fruit after it is in the cans, and then fitting on the covers does not prevent mold from forming, but I have never been troubled in this way when the cans were properly filled and the outside treated as above.

The paraffin forms a good preservative for jelly by putting a few spoonfuls of the melted article over the tops after the contents of the glasses has become firm. Jelly should always be protected from dust while cooling as it forms an excellent medium for the retention and transmission of germs if left exposed for even a few minutes.

From Bakery to Farm

Soda crackers are a long time on the road to the country store, and from there to the country home. But

Uneda Biscuit

—no matter how far they journey, never become travel worn. As you open their moisture proof protecting package you always find them not only store fresh, but bakery fresh—clean, crisp and whole.

A package costs 5c.

(Never Sold in Bulk)

NATIONAL BISCUIT COMPANY

BEST GROCERY OFFER EVER PUBLISHED

READ EVERY WORD OF THIS WONDERFUL OFFER

Chicago House Wrecking Company saves you 20 to 60 per cent on new, clean merchandise of every kind. Here is one sample of our money saving offers:

\$15.56 Worth of Fine Groceries for **\$10.00**

Order by Lot No. 15 A. D. 1000	Regular	Retail	Regular	Retail
		Price		Price
25 pound sack, finest Eastern Cane sugar.....	\$1.50		1, 4 oz Can Ground Cloves.....	.15
4 pounds Special J. & M. coffee, reg. 35c grade	1.40		1, 4 oz. Bottle Pure Vanilla Extract.....	.50
2 pounds High Grade Tea, regular 50c quality..	1.00		1, 4 oz. Bottle Pure Lemon Extract.....	.45
1 pound can Pure Baking Powder.....	.25		3, 5c Packages Yeast Foam Dry Yeast.....	.15
5 pound package Extra Fancy Japan Rice.....	.40		3 Tall Cans Fancy Red Salmon.....	.50
10 pound package Strictly Fresh Rolled Oats....	.50		3 Regular 20c cans Sardines in Olive Oil.....	.60
10 pound pkg. Fancy Snow White Navy Beans....	.80		3 Cans Extra Quality Fancy Ripe Tomatoes....	.36
1 pound package Premium Baker's Chocolate....	.40		3 Cans Extra Quality E. J. Peas.....	.36
3, 1 pound packages Pure Baking Soda.....	.25		2, 10c Packages Corn Starch.....	.20
6 pound Wooden Box Laundry Gloss Starch....	.50		5 pound package Large size California Prunes.	.60
10 Bars Extra Large Size Laundry Soap.....	.50		3 pound packages seeded raisins.....	.35
1, 4 pound package Washing Powder.....	.20		2 pound packages Cleaned Currants.....	.24
3 large size cans Lye.....	.25		1 gallon can Fancy Table Syrup.....	.75
1, 8 oz. Can Fresh Ground Black Pepper.....	.25		1 gallon can High Grade Cooking Molasses....	.75
1, 8 oz. Can Fresh Ground Dry Mustard.....	.25		10 pound box Fancy Soda Crackers.....	1.00
1, 4 oz. Can Ground Cinnamon.....	.15		Total Regular Retail Price.....	\$15.56

ALL THE ARTICLES IN THIS LIST FURNISHED FOR **\$10.00**

Fill in this Coupon for our Grocery List.
Chicago House Wrecking Co., Dept. 29, Chicago.

Send me your grocery list regularly every 60 days.

Name.....

Town.....

State..... R. F. D.....

Send For "Grocery Price Wrecker"

is issued every 60 days. Contains a complete up-to-date line of excellent quality groceries. Prices save you 20 to 60 per cent. Send coupon for our grocery "Price Wrecker," saves money on your daily needs. Our stock includes everything under the sun.

CHICAGO HOUSE WRECKING CO.
35th and Iron Sts., Chicago

Try Conkey's Fly Knocker 15 Days Free!

Let Us Send You a Gallon Can—Express Prepaid

Horses lose flesh and shirk work when bothered and bitten by flies. Cows give less milk when tortured and frenzied by these pests.

In the name of humanity and for the sake of your pocketbook, keep your stock free from torturing, maddening, disease-breeding swarms of flies this summer! "Fly Knocker" solves the problem.

It relieves the distress of your stock and helps rid your barn of the fly nuisance. Conkey's Fly Knocker is the greatest boon to fly-tortured animals that the world has ever known. Harmless to stock.

No Deposit Required! Send today for a gallon can on Free Trial. At the end of 15 days, if you are delighted with the results, send us \$1.25, which includes express to any point in the United States east of New Mexico, Colorado, Wyoming or Montana. If it fails, you don't owe us a cent.

NOTE: "Fly Knocker" should be sprayed on the animals. If you haven't a sprayer, tell us and we will send ½ gallon of "Fly Knocker" and a sprayer instead of a gallon can. We will send from our nearest Agency. Order today.

Address **CONKEY'S LABORATORIES, Dept. 42 Cleveland, Ohio**

The Potato Digger Dowden

For Fast, Clean Work is the

Simple, strong, always in order. Works in all soils, all depths, hillside and level. No cutting and none missed. Potatoes always clean, lying on top of ground. Works well in heavy tops.

DOWDEN MFG. COMPANY
1075 Elm Street, Prairie City, Ia., U. S. A.

Send for Free Catalogue

BIG PAY IN BALING HAY With a FAST WORKING SANDWICH PRESS!

Capacity of This
Two-Horse Press
12 to 18 Tons
Per Day!



Sandwich Self-Feed
Full-Circle Hay Press

Coupon Brings Book
"TONS TELL"
-GET BUSY
NOW

A Fast Press Means a Fat Pocketbook at the End of the Season's Run!

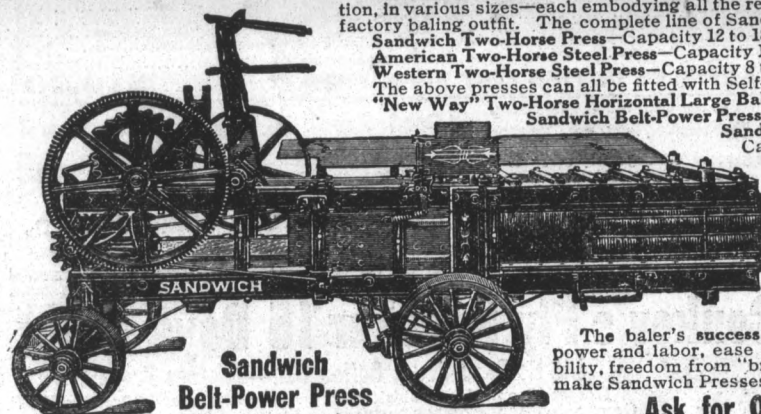
Baled Hay is daily becoming a more important commodity. Every hay-producing section is a profitable field for a Fast-working Horse or Belt Power Sandwich Hay Press. Our presses are big money-makers. Their great capacity enables owners to bale MORE TONS PER DAY than with other presses. A good live man can make a profit of hundreds of dollars every season—and can run his outfit all winter long, at low cost for power and labor. We have issued a book, "TONS TELL," which fully describes our presses and gives important facts, hitherto unpublished, on the Profits in Running a Baler. Send the coupon for Free Book and Special 1910 Proposition AT ONCE, for the baling season is at hand.

Enormous Baling Capacity of Sandwich Presses

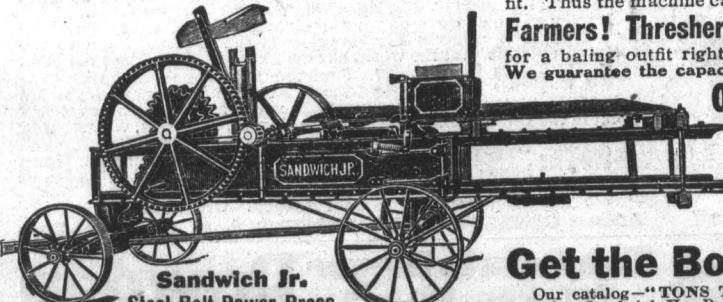
The extraordinarily large capacity of Sandwich Hay Presses is due to our simplified construction and wonderful economy of power. Our presses positively bale from TWO TO FOUR MORE TONS PER DAY than ordinary hay presses—requiring no more help and no greater power than small-capacity presses. "IT'S TONS THAT MAKE THE BALER'S PROFITS." Sandwich Presses have BIG FEED OPENINGS and effective SELF-FEEDER ATTACHMENTS. The capacity is limited only by the ability of the crew to get the hay to and from the press. In convenience, our presses are absolutely unsurpassed. On all but the smallest size horse press the TYER stands up to do his work; no getting down in the dust, mud or snow. They stand up on their wheels when working. No holes to dig! Adapted for bank barn work. A Sandwich Press takes a charge of hay twice as large as taken by other presses. Fork-feeding only. No dangerous foot-tamping necessary. No other press can be fed with the fork as rapidly and safely as the Sandwich. They make even-sized, compact bales, which pack well in cars.

All Styles, Operated by Horses or Belt Power Most Up-to-Date, Successful and Economical Hay Presses in the World

We build Horse-Power and Belt-Power Hay Presses, wood or steel construction, in various sizes—each embodying all the requisites of a profitable and satisfactory baling outfit. The complete line of Sandwich Hay Presses is as follows:
Sandwich Two-Horse Press—Capacity 12 to 18 tons per day.
American Two-Horse Steel Press—Capacity 10 to 12 tons per day.
Western Two-Horse Steel Press—Capacity 8 to 10 tons per day.
The above presses can all be fitted with Self-Feeders.
"New Way" Two-Horse Horizontal Large Bale Press—1½ to 2½ tons per hour.
Sandwich Belt-Power Press—Capacity 2½ to 5 tons per hour.
Sandwich Jr. Steel Belt-Power Press—Capacity 2 to 3 tons per hour.
Belt Presses regularly fitted with Self-Feeders.
Each of these outfits illustrated and fully described in Free Catalog.



Sandwich
Belt-Power Press
Capacity 2½ to 5 Tons Per Hour



Sandwich Jr.
Steel Belt-Power Press
Capacity 2 to 3 Tons Per Hour

Every Improvement Known to Hay Press Construction Found on Sandwich Presses

The baler's success depends on the Press. Big capacity, economy of power and labor, ease of feeding, perfect bales, safety, simplicity, durability, freedom from "breakdowns," and scores of other desirable features make Sandwich Presses sure money-makers.

Ask for Our Partial Payment Offer!

We are always glad to give Hay Press buyers ample time to pay for the outfit. Thus the machine can be made to practically pay for itself.
Farmers! Threshermen! Shippers! This is the opportunity you have been wishing for. Plenty of work for a baling outfit right in your locality. Our Presses will deliver the goods! We guarantee the capacity of every Sandwich Press.

Own a Sandwich Hay Press and Make \$6 to \$10 a Day This Season!

Read the letters from owners of our Hay Presses, proving the profit in baling. Does \$6 to \$10 a day clear profit look good to you? If others can pay for their Hay Presses and make several hundred dollars extra in a single season—why not you? Owners of Sandwich Presses make big money year after year.

Get the Book on Hay Press Profits!

Our catalog—"TONS TELL"—will give you a wealth of valuable information in regard to Sandwich Hay Presses; their superiority in design, construction, capacity, operation, etc. It will tell you how big, sure profits are easily made—everything fully explained. Don't delay writing, but fill out and mail coupon NOW and get posted on the proposition.

Sandwich Mfg. Co., 147 Main St., Sandwich, Ill.

BIG PROFITS PROVED

Read What Users of Sandwich Presses Say:

SANDWICH MFG. CO.
Dear Sirs:
In warm weather I bale an average of 14 to 16 tons or better; in winter 10 to 12 tons per day, with two teams, two men and boy as driver. One man costs \$2.50. Ties \$1.00 to \$1.10 per bundle, which will tie 4 to 6 tons.
Farmers put hay to the press and take care of the bales, so three of us run the press. Get \$1.00 per ton for 2 and \$1.10 for 3 ties. I figure my profits about like this:
Winter, say 11 tons per day, - \$11.00
Expenses, - 4.00
Profits per day, \$ 7.00
Warm weather, 15 tons per day, - \$15.00
Expenses, - 4.50
Profits per day, \$10.50
Have baled 17 tons in a day; 9½ in one-half day; 6 tons in less than three hours.
One dollar per year will pay all expenses for repairs.
J. L. FELLOWS,
R. F. D. 5, South Haven, Mich.

Alex. S. Gardiner,
Dealer in Farm Machinery, Hay, etc.,
Huntington, N. Y.
SANDWICH MFG. CO., Sandwich, Ill.
Dear Sirs:
The Sandwich Belt Power Press stands up to its work good. We tried to break it if we could, but could do nothing in the way of breaking it. It was always ready to take the hay. We pressed one bale per minute—150 lbs. to the bale. It works so good thought I would send you my check for the press, which you will please find enclosed for the amount of your bill. This makes nine different kinds of presses I have had and sold and this beats them all. Yours truly,
(Signed) ALEX. S. GARDINER.

Hotel Clinton,
Clinton, Wis., April 24, 1910.
SANDWICH MFG. CO., Sandwich, Ill.
Dear Sirs:
Answering yours of the 23rd in regard to expense and profit, I will state that I bought this Sandwich press of Andrew Bradt and have run it one month.
Now I run the above hotel and am not with the machine, but hire five men and a boy to drive, which costs me \$8.75 and I get \$1.75 per ton for baling. I told the boys if they averaged ten tons per day I was satisfied, which they do very easy. One afternoon they pressed 176 bales that averaged 95 lbs. in 4½ hours to see what they could do if they worked good and swift. I think the press will clear me \$6.00 per day and I never go near it and an old press at that. With best wishes, I remain,
(Signed) GEO. H. AMOS.

A. W. SKINNER, of Augusta, Ill., says:
With the Sandwich Two-Horse Press I can easily bale an average of ten tons per day, at an expense of 45c per ton. The price paid per ton is around \$1.25. This leaves the baler an average profit of \$6.00 per day. The Sandwich Baler is the best press built. The presses I bought in 1900 and 1902 are still O. K.

"New Way" Large Bale Two-Horse Press



Capacity 1½ to 2½ tons per hour
Size of bale 46x23x19 inches

FREE BOOK, "TONS TELL" And "Care and Cure of Hay"

Sandwich Mfg. Co., 147 Main St., Sandwich, Ill.
Please send me the above Books and Special 1910 Proposition.

Name _____

Address _____