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FARM NOTES.

Potato Diseases.

Several samples of potato vines showing ing the destructive late blight. In every early blight or the trouble commonly known as sun scald or tip burn. This is evidence of the more general interest which is undoubtedly prevalent among potato growers with regard to the diseases which attack this crop, and the possibility of preventing serious damage from them by the application of preventive measures. No potato grower can be too familiar with the appearance presented by the potato vines when attacked by any one of these common diseases, hence a brief discussion of their "symptoms" will be profitable at this time.

Early Blight.

While quite destructive, this disease is not to be compared with late blight in its damaging effects. It is easily distinguished from the latter by its different appearance. It is really a leaf blight, attacking the leaves and green stems. The first indication of its presence is the appearance on the leaves of rather light brown spots, which soon become hard and brittle. The disease progresses rather slowly, the spots gradually becoming larger, particularly near the edges of the leaves, and some of the dry, brittle portions will drop out, leaving a ragged appearance. The disease gradually progresses until at the end of a month most of the leaves will become withered, dry and brittle, and while the stems remain green for a time the plants soon die for lack of nourishment. As this disease generally attacks the plants at about the time the tubers commence to form, the crop is often seriously damaged by it. The disease can be held in check by the application of Bordeaux mixture, as advised for late blight, and at several experiment stations where experiments have been conducted to determine the profit, if any, from spraying it has been found that the increase in the yield as result of checking the early blight and other lesser troubles, has more than repaid the cost of thoro spraying, even where the late blight did not make an appearance in the unsprayed check plots. Tip Burn or Scald.

This is a disease which is sometimes

present in the same fields. The edges of this condition causes a rapid evaporation tato, "an ounce of prevention is worth the tender leaves will wilt, turn brown of the moisture stored in the leaf cells. a pound of cure." The best way to prethe trouble.

spots over the surface of the leaves which withdraw the moisture from the plants any time during the growth of the condition for any considerable length of

case the trouble appeared to be either plants as a result of the peculiar weather time cause the tender portions of the conditions which are supposed to cause plants to weaken and die. Thus prac-Continued damp or rainy tically the same effect is produced on the

Scenes Which Made Life the Better Worth Living in One Rural Community.

The accompanying cuts show a bunch of Ottawa County farmers who made and old fashioned "bee" to do the spring plowing and planting for an unfortunate neighbor who is suffering from a protracted illness. The same "bunch of neighbors" have since conducted nearly all the work on his farm in a similar manner. Their example is worthy of emulation in any neighborhood where a similar opportunity offers.



velopment. It is most apt to occur on

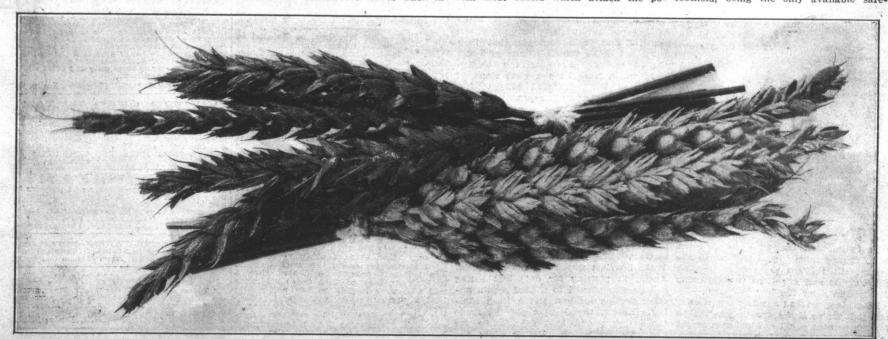
weather, followed by clear, hot days are vine as is the case in a protracted spell the conditions most favorable to its de- of dry weather on soils which are not retentive of moisture. L'ke early blight, soils that are not retentive of moisture, it is more apt to occur in fields where and the theory with regard to it is that the growth of the plants has been checked the tissues of the plants become loaded for any reason, and their vigor consewith moisture in the damp weather, and quently weakened. In this trouble, as confused with early blight and is often that the hot sun on the leaves when in with most others which attack the po-

The best way to preand become hard and brittle, but the On an open soil, this evaporation may vent it is by increasing the humus in the soil, which will make it more retentive evidence of disease have recently been are characteristic of early blight are gen- more rapidly than the supply is furnished of moisture as well as more fertile, by sent in for "diagnosis," the growers fear- erally lacking. This trouble may occur by the roots, and a continuation of this furnishing plenty of available plant food for the use of the growing crop, and by employing cultural methods which will keep the crop in a vigorous growing condition at all times. The application of Bordeaux mixture is said to have a beneficial effect in the minimizing of this trouble, but it should not be depended upon to the neglect of a proper preparation of the soil or good cultural methods in growing the crop.

Late Blight.

The late, or true, blight of potatoes, also known as rot, from its effects, attacks the whole plant, including leaves, stems and tubers. The first appearance of the disease is generally indicated by brown or nearly black areas on the leaves, which seem to be slightly! depressed below the surface of the healthy tissue. These diseased areas soon become soft and foul smelling, the odor emanating from a field of potatoes attacked by late blight being very noticeable and disagreeable. Under favorable conditions for the development of the spores, this disease progresses with surprising rapidity. A field that looks green and healthy today may be wilted and blackened on the morrow and the vines dead within the week. The rapid spread of this fungous disease in some cases is due to the prevalence of the peculiar weather conditions under which the spores of the disgerminate and multiply. Moise weather in which a daily mean or normal temperature of between 72 and 74 degrees F. prevails for any considerable time furnishes the best conditions for the growth and rapid spread of this parasitic Where the temperature rises fungus. much above 78 degrees for any length of time the growth of the spores and consequently the progress of the disease is arrested, and a like result follows any considerable fall in the temperature. This explains the varying degree of destruction to the crop which accompanies the appearance of blight in different seasons.

Owing to the nature of this disease curative measures are impracticable, prevention by a germ proof covering of the vine which will make it impossible for the fungus germs or spores to gain a foothold, being the only available safe-



Heads from Two Varieties of Minnesota Spring Wheat Successfully Grown by a Saginaw County Farmer. (See Spring Wheat for Michigan. on Page 126).

guard. is familiar with its composition, provides the material for this germ proof coating, and the modern mechanical spray furnishes the means of applying it. If the grower could forsee with accuracy just what kind of weather would prevail during the growth of the crop, the problem of preventing damage from blight would be greatly simplified, but not possessing This season we have an eight acre that most desirable faculty, he has no field planted to late potatoes and half to other option than to be on the safe side by spraying systematically or accept the alternative of taking the risk of the damage or loss of his crop. Since the experition that the spraying will pay, even when there is no late blight, an increasing number of farmers are each year taking that precaution.

Seeding Low Land to Grass.

I have about five acres of land that overflows from the Grand river every spring, which I would like to get seeded to hay. I am raising corn on it this year. Would I get a crop of hay next year if I sowed the seed this fall and when would you advise me to sow it, before or after the last cultivation of the corn? What grasses can best stand overflowing in the spring? Would alfalfa do? Ottawa Co.

Alfalfa, would not be at all suitable

Alfalfa would not be at all suitable for use in seeding a permanent meadow land that overflows for any length of time in spring. In fact, it will not do well in any land in which the water level is close to the surface. A much better mixture would be that of alsike clover, timothy, redtop and fowl meadow grass. While it might be practical to seed this mixture in standing corn, especially where there is plenty of moisture, it is doubtful if as good results would be secured as by working the soil up thoroly after the soil dries off next spring, sowing a liberal quantity of this mixture without any other crop.

However, if seeded any time in August under favorable conditions a fair stand might be secured by the methods suggested in this inquiry. If this method is used the soil should be cultivated shallow both before and after the seed is sown for best results, using a fine tooth cultivator for the process. This method would have the decided advantage of saving a year's time, for which reason it is worth a trial, and if a good stand is ould he reseeded next summer.

HARVESTING THE SECOND CUTTING OF ALFALFA.

We have just finished drawing our we have just limisted drawing our second cutting of alfalfa, securing about field, but it may show up in the yield. seven tons of high class hay. This makes about 18 tons so far this season from nine acres sown about the 20th of last August, Not much to brag of; but when we consider that we are situated in the driest portion of a very dry county; and that the plants are not yet a year old, it is not so bad. We began cutting the 4th of August and finished the 5th, bunching and capping the 5th and 6th.

Saturday and Sunday were very drying -almost scorching days. Then came a sharp shower which would have been very damaging had the cocks not been capped. As it was, the hay was not hurt and dried out in nice condition without the cocks being opened.

I believe my hay caps have paid for themselves already this season.

Putting on the Caps.

Putting on the caps is a simple matter, yet one may become an expert at it. Have the caps on a stoneboat or handcart, or one may distribute them from plent ful and it is probable that they wagon by dropping a cap near each bunch as the wagon moves along. Take the cap by two corners, stand on the windward side of the cocks, give the cap a fling, hanging on to the corners, and the weights straighten out the sheet and it comes down nice and evenly over the hay and is the work of only an

Taking Off the Cans

In taking off the cap grab it by the center with one hand and lift straight This causes the weights to swing in SOME EXPERIMENTS IN PLOWING. together so it may be laid lengthways on the ground. The man who does the four of the caps as he goes from one fall most of the ground was plowed a cock to another, leaving them with the good depth, but a small strip was plowed fifth, always taking hold of them in the shallow. The shallow plowing resulted center. This keeps them from tangling in the heaviest wheat and the best yield. the weights and expedites the gathering Again, in plowing for oats last spring of them in after the hay is drawn.

Last night we had another fine shower and it looks as if the drouth was broken low. for the present and I am in hopes to get still another cutting of alfalfa.

We are feeding the hay to our cows best yield. with good effect. They relish it and it Lapeer C

Bordeaux mixture, which has certainly is a great milk producing feed. been described so often that every reader I believe we Michigan farmers will yet make a great success with alfalfa and with corn and alfalfa we will solve the feed problem very satisfactorily.

Oakland Co. C. R. COOK.

SOME POTATO AND BEAN EXPE-RIENCE.

This season we have an eight acre white beans. We are not going to tell you what a nice field this is for it isn't. but we want to tell why we think it isn't, so if readers think we are right they can mental stations are a unit in the declara- profit by the experience, and if not we should be glad to receive some suggestions on the subject.

To begin with, the field was plowed and fitted between the heavy rains which we were having at that time. We could not work the corn and to gain time plowed this field rather wet, as it was nearly impossible to find more than a day at a time when it was dry enough. After plowing there came a heavy rain, and we began fitting it a little heavy. It was in fair shape, however, but just as we were ready to mark another rain came. The harrowing was repeated, only to be wet down again. It was fitted for the third time and the potatoes and part of the beans planted on June 21 to 24, when another rain came, and it was not until June 30 that we could finish planting the beans.

With so much working when the soil was rather full of moisture, the ground was too compact for potatoes and in places it was difficult to get the hand planter in far enough. These more clayey places have not come well and the vines have not made a good growth, the best growth being on the higher and looser parts of the field. There is no question but that the soil was too compact, and that it would have been better if we had let it alone until it was drier even if it was late.

Three varieties were planted-Carman No. 3, Rural New Yorker, and Million Dollar potatoes. At present the Rural New Yorkers are ahead, if growth is judged by the size of the vines. The Million Dollar are next, and the Carman have made the poorest growth of all, altho a part of this seed has been selected by the hill method for three years. A gentleman from an adjoining county tells me that he can tell his selected seed from other seed of the same variety by the more vigorous growth of the rows. confess I am unable to do this in this Yorker vines nearly cover the ground, and there are all stages from this to small vines which will hardly amount to much. It seems to me an object lesson that potatoes must have mellow soil to do their best.

As for the beans they are more uneven than the potatoes. Just as soon as they were up the striped flea beetles began to eat the young leaves and persisted until little was left but the stalks. On July 10 we replated about half of the hills but they still persisted and ate the replanted stalks. The experiment station could give no advice as to how to fight them. Spraying was hardly practical, as there was hardly anything to spray as the beetles began as soon as the buds opened They finally left, however, as suddenly as they came, but they left a very spotted field of beans. It is said that these beetles do not work when rains are would not do so much damage to beans planted earlier. But for the beetles there would have been a good stand of beans, as the untouched hills testify. These are discouragements that the farmer must take with a good temper, and console himself with the thot that he could not help it. Perhaps these crops will "pay for their keep" and leave the field in good condition for wheat or oats. Calhoun Co. S. B. H.

I would like space to mention a few pitching can conveniently carry at least experiments in plowing. For wheat last a little was plowed to a good depth, another portion medium and a third shal-Result, the deepest plowing made the heaviest and best oats, while for corn the shallowest plowing gives the

M. A. CRAWFORD. Lapeer Co.

SPRING WHEAT FOR MICHIGAN.

Your inquiry in regard to my success with spring wheat this year is received. I selected some heads of spring wheat from my field today and send under separate cover (see first page illustration). One kind, the light colored sample, is the Minnesota, No. 169. The other variety is another spring wheat which I have grown for four seasons. The Minnesota No. 169, has larger heads but did not seem to do as well as the other kind. think after it has been raised for several seasons in our climate it would do better. The other variety looks promising as it stands in the field. I have between five and six acres of spring wheat now ready for the harvest.

Altho my spring wheat did well last year and looks promising this year I do not wish you to think that I expect spring wheat to take the place of winter wheat, I do not expect it to yield as well, probably not more than 15 to 22 bushels per acre, but in growing it we do not have the winter killing, so troublesome with winter wheat, to contend with and I we ought to raise some spring wheat in Michigan to mix with winter wheat for making flour and not have to depend altogether on the northwest for it, as the millers now have to for blending purposes. Last year I sold my surplus to a local milling company at \$1.15 per bushel. Winter wheat at the time was selling at \$1.12. It tested 61 lbs. per bushel and was said by the millers to be very hard, altho they that it was not quite as good as western spring wheat. I had five bushels more by weight than by threshers' measure.

I believe that Michigan farmers ough to grow more spring wheat for the reasons above noted. We are trying cow peas, soy beans and alfalfa in this state with fair results, but I remember the time when a man who advocated the growing of cow peas in Michigan was laughed at in a farmer's institute which I attended some 12 years ago. Perhaps it will be the same with spring wheat.

Saginaw Co.

Grain and flour receipts during June at the four leading Atlantic seaports totaled 8,951,111 bushels, compared with 11,375,318 and 16,868,993 bushels recorded for June, 1908 and 1907. The losses are mainly accounted for by the partial check of the export movement caused by the prevailing high prices, especially of wheat. The June receipts of wheat at these markets were 1,494,588 bushels, compared with 2,772,547 bushels reported for June, 1908. The flour receipts were \$70,248 barrels, compared with 1,061,102 barrels reported during June of the previous year. Similar decreases appear under the head of other breadstuffs. The six months' figures, 68,381,099 bushels, show an 18 and 45 per cent loss as compared with analogous 1908 and 1907 figures.

Seager Engine Works Succeeds the Olds
Gas Power Co.

An important change in the name of one of the largest manufacturers of agricultural engines in the world is announced for the Olds Gas Power Co., of Lansing, Mich., makers of the famous Olds gasoline engines, which is now the Seager Engine Works. Mr. Olds has not been connected with this institution for a number of years, and the management has been entirely in the hands of the Seagers. There is no change whatever in the management or personnel of the officers. J. H. Seager is president; F. L. Smith, vice-president; J. B. Seager, general manager; S. F. Seager, secretary and treasurer, with the same board of directors as heretofore. The capital stock of the company has, however, been increased the company has, however, been increased from \$615,000 to \$1,500,000 to enable this successful company to keep pace with the increasing demand for their goods.

Corn Harvesting Machines as Related to Full Corn Crop Values.

There is a class of farm machines which, we are persuaded, do not receive the attention they deserve. We refer to the corn harvesting machines and machines for getting greater value out of the fodder part of the crop. The corn binder, several styles of which are manufactured by the International Harvester Company, has been brot to a high state of perfection. It should be in much more general use than it is today. It is a great labor saver. It facilitates the work. It enables corn raisers to cut and shock at the corn within the very few days labor saver. It facilitates the work. It enables corn raisers to cut and shock all their corn within the very few days when all the nutritious elements can be preserved. It must not be forgotten that there is a "psychological moment" for cutting corn. Take your corn when it is just right, when stalk, leaf and blade are full of sweet, nutritious juices, and before it has begun to degenerate into a woody fibre, and you have a feed that is almost as good as the best upland hay. That is the time when corn should be cut. The extra feeding value more than repays for doing the work quickly. We think it cannot be denied that a better acquaintance with these machines will add very largely to the net profits that farmers are now receiving for their corn crops. There are thousands now in use but the use should be still more general. Any one who wants to do some figuring on present corn crop values and how to increase them, will find some very interesting books on these machines with almost any International local agent.

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BREEDERS' PROBLEMS.

Culling the Flock.

Notwithstanding the occasional fads which affect the breeding business, and regardless of the methods which some breeders claim to follow with success, the first principle of success for the average breeder and farmer is the careful selection of his breeding stock, and in no department of live stock breeding is this task more difficult or the effects of judicious selection more noticeable than with sheep. The sheep of today is truly a dual purpose animal, and the breeding stock should be selected with a view to a maximum production of both wool and mutton. No matter what the breed, or whether they are pure-breds or grades, this fact applies with equal force, and makes the process of selection a more difficult and discriminating one, even with the grade flock, while with the breeder of pure-bred stock it is still more difficult for the reason that breed type and characteristics must also be taken into consideration. But the successful breeder of grade sheep should not consider himself as free from the consideration of this point in the culling of his flock, for the reason that adherence to a certain type which will insure uniformity in the flock, and consequently in the wool clip and the lambs, will add not a little to the profit which may be derived from this department of farm production.

The breeder or farmer who has the material from which to select and the ability to cull for all of these points at one time is indeed fortunate, but most sheep owners will not be so situated. In this event, the particular line of production which is considered of the most importance should receive first attention. In most cases in Michigan this will be the production of a good lamb crop, and all ewes that are not good producers in this respect should be rejected from the This means, of course, that all ewes that show a marked lack of thrift which indicates a diseased condition, or lack of hardiness, should be the first to be rejected. Then the quality of the lambs raised by the ewes should be taken into consideration. Generally speaking, the ewe which shows evidence of having maintained a good milk flow up to weaning time will be satisfactory in this respect, but it is a good plan to identify the lamb at the time or before it is weaned, since a ewe of rather poor type and appearance will often rear a lamb of excellent individuality if bred to a prepotent ram, and will prove more valuable in the breeding flock than an apparently much better individual that may or common grades, for we get the great not be as good a producer. Here the digestive powers of the large breed in breeder of pure-bred sheep has the advantage of the average sheepowner in that he can identify the progeny of any ewe, and thus the better judge of her value as a producer, but the observing flockmaster should at least make a note of the poor producers and mark them Spring Litters Best for Fancy Pig Pork for identification later if he can not identify them without that precaution.

is an important one, as above noted, it should generally be held as of secondary The good producer for improvement. in abeyance until such time as the breeder on the road to rapid gains. has a flock of sufficient numbers so that that does not come up to a certain stand- begin by feeding the brood sows a proper all ages and sizes are allowed the run of ard of wool production, no matter how diet four months before the pigs are one yard or pasture. Plan your system good an individual or how prolific a producer she may be.

One of the most profitable

to another breeder because of what she had demonstrated herself capable of doing right conditions that this trouble can be as a producer, and he kept her for two years more with profit, to the writer's knowledge. This, of course, was an exceptional case, but it is mentioned as an illustration of the fact that it is poor policy to dispose of an exceptionally good producer at four or five years of age as have them trained so that we may be is the common practice. Of course, where the younger ewes have demonstrated their ability, they should be retained and the older ones disposed of, but the age rule is a poor one to follow rigidly in culling the flock. Appearances are often deceitful in the flock of breeding ewes as in other things, and the man who attempts to cull the flock without first an undersized, immature sow that was make as great a mistake as the man who decides any other matter from the standpoint of appearances alone. If the sheep breeder is to make a maximum of profit from the flock he must cull it with intelligent care, and there is not better time to determine which ewes to keep and which to dispose of than at or before the time when the lambs are weaned.

PIG PRODUCTION FOR THE GENERAL FARMER.

Early Maturity Reduces Cost of Production.

To make a success of producing fancy pig pork we must have early maturing pigs and keep them growing rapidly from birth to maturity. Every week that a let us retain only the well developed, pig is not making a gain in weight the good sized sows for breeding purposes. feed is worse than wasted, because it takes considerable time to overcome the unthrifty habit, and all food is lost until growth resumes again. It is thus evident habit of early maturity, but those men that if we produce this pig pork at a we must feed for unremitting growth from birth until they are ready to market. The secret of success in growing early maturing hogs depends early maturity but it is the kind that not so much upon the breed, altho the breed has a good deal to do with it, as upon liberal feeding and good care. While I do not favor any particular their growth and not by reducing the breed, yet I have had very good success size and constitution of the breeding by crossing a sow of one of the large breeds with an Essex boar, for feeding for pig pork that is adapted to our eastern markets. I would not want the pigs that came from these cross-bred animals, but would want them from the first cross of the pure-bred sires and dams. I have found it a decided advantage to use sows from the large breed and males from the small breed, in order that the young pigs may secure better growth and nourishment before they are taken from their dam. By the first cross I believe that we get more vigor and quicker growth than with the pure-breds the body of the small, refined, quickly fattening hog. It enables them to consume an increased amount of food and lessens the demand upon it to sustain life, and greater and more rapid gains are made in the formation of flesh.

Growing. While I do not wish to convey the im-While the matter of wool production pression that fall litters are always unprofitable, yet where pigs are used as an adjunct to the dairy, I believe that spring importance in the culling of the flock litters will prove more profitable. When we lose these early spring litters we should not be sacrificed because she lose the profits of the season, and we shears only a moderate fleece, unless cannot replace them the same season, there is a surplus of good producers in so we must take the utmost pains to save the flock. For this reason it is the writ- these litters. With plenty of skim-milk er's opinion that this point should be held it is an easy matter to get these litters

he can afford to discard every female sure of saving these early litters is to ter and look better, than when pigs of born. I think that breeding sows should of forage crops so that you will not be have just as good care and kind treat- dependent upon any one crop at any Another mistake that many sheep own- ment as the best cow we have in the ers make is in culling too much with dairy. The general farmer breeds hogs will have an abundance of succulent feed regard to the age of the individuals, upon one principle, and that is luck. If at certain times and none at other times. Many seem to think that it is only the he saves a lot of pigs in the spring he Among the forage crops that I have young animals that should be kept, and has good luck. If he has a lot of pigs found best adapted to our climate are that the older ewes should be disposed farrowed and the sow loses a large numof regardless of their quality as produc- ber, he has bad luck. This kind of maners. But where this rule is rigidly ad- agement won't do when we are produchered to, rapid improvement in the qual- ing fancy pig pork. The sow should be ity of the flock as a whole is generally fed warm feed during the winter, good, sacrificed. As a rule, the old ewes are wholesome food, not corn, but wheat better producers than the younger ones, middlings, ground oats, roots and clover and where they have demonstrated their and we will have what is termed good ability in this direction it is a mistake luck. Sows that are fed on corn and too to sacrifice them for a young and untried highly concentrated food during the time they are with pig, are quite sure to have

retained for four years and then sold turn upon them and devour them. It is only by feeding the sows under the avoided. If the sow has a caked udder it gives her a lot of pain and we cannot blame her for being restless and not laying quiet and allowing the pigs to suck. When we have a few choice sows we should be acquainted with them and sure of saving practically all of the vigcrous pigs that are farrowed.

Breed Only from Well Matured Sires and Dams.

It is a great mistake to use immature breeding stock. I would rather have one litter of strong, well developed pigs from a good sized sow than two litters from carefully studying the characteristics of not capable of properly nourishing her the individuals in the flock is sure to pigs up to weaning time. The drains on a sow while nursing a litter of pigs are severe and the sow that has one or two hundred pounds of flesh in reserve is more certain to properly nourish her litter than the younger sow.

Remember that a good breeding sow will give as much milk as your best cow, and feed her according to her needs. A good litter of pigs will weigh about 15 to 20 pounds at birth and when they are ready to wean they will often outweigh their dam, and practically all of this gain must come from the milk of the dam. This shows that she needs plenty of good, wholesome food. The sow that is bred before she has reached a fair maturity cannot raise good young because she is growing herself, therefore, I say, Some writers for the farm press, and some Institute men, advocate breeding young sows so that we may intensify the seem to forget that closely connected with early maturity is that of early decay, or, in other words, that there is sure to be a decrease in vigor. I believe in comes by feeding good sized, healthy pigs on a well balanced ration, adapted to their needs at the various stages of

Forage an Important Factor in Economi-

cal Pork Growing
With the present high prices of grain and mill-feed it is essential that we exercise strict economy in feeding the growing pigs and also in maintaining the brood sows during the time they are not nursing a litter. With hogs, the same as with other animals, food will produce results only when properly balanced so that it will nourish all parts of the growing animal, and it also tends to improve the appetite of the hog and make a better quality of pork than when one kind of food is used. The hog that is fed a ration composed largely of dairy by-products, forage and finished with grain, makes the very best kind of pork. It is well marbled with fat and lean, thus insuring hams that are well adapted to supplying the fancy trade. A coarse, fat ham is not the type the fancy markets demand after people have become accustomed to fine grained, well marbled hams that are produced by feeding a well balanced ration of dairy by-products and forage and finished with grain.

A well planned system of forage crops for a herd of swine will reduce the cost of production from 30 to 40 per cent for the whole year. The size of pastures must be determined by the kind of forage and the number of hogs that are being grown. I like plenty of room so that pigs of the same age and size may be kept together. When separated in I have found that the best way to make this manner they grow better, feed bettime during the pasture season, or you rye, clover, alfalfa, cowpeas, common field peas, sweet corn and rapes. Oats and barley are very good to use in some mixtures. Cow-peas are better adapted to a southern latitude but I have raised excellent cow-peas in this state. These forage and pasture crops may be sowed at various times so that some of them will be available at all times from early in the spring until late in the fall. All men who grow hogs should not be slow individuals which the writer ever had in trouble at farrowing time and we need to investigate the legumes, especially alhis flock of pure-bred sheep was pur- not wonder if they run after their pigs falfa, for they are highly nitrogeneous chased when seven years old. She was and chase them into a corner, or even foods and can be grown with great beneAll harness leather needs an occasional oiling and blacking, and

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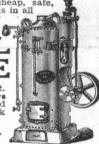
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fit to the soil. When a green crop is being pastured we often find that it is growing too fast for the hogs, and plow it under to fertilize the soil. This, together with the dropping from the hogs, will greatly improve the productivity of a very thin soil. In fact, I know of no better way of improving poor soil than by utilizing it for hog pasture and plowing under legumes. Some writers claim too much for forage as a hog feed, I have lived in the alfalfa growing sections of Kansas and I have had a few years' experience with hogs and alfalfa, and I do not believe that good pigs can be raised on alfalfa alone unless it is supplemented with other-foods, such as corn and mill-feed. I have known a number who have tried forage crops alone but their pigs were not promising when it came time to put them into the fattening yards.

Feed Only Clean and Wholesome Food.

The old sour swill barrel that is found at many farmers' back doors, is the direct cause of more pigs being off their feed than any one thing connected with growing pigs. Remember, that the hog is an animal with a very small stomach and that he digests his food very rapidly and consumes the greatest amount of food in a short time. Therefore, if he gives the greatest returns he must have comething to assist his alterative organs menced to swell below ear and in throat many farmers have a little air slacked lime to their food supply, also give them 2 grs.

Blood Poison.—Have a horse that commence to swell below ear and in throat many farmers have a little air slacked lime to their food supply, also give them 2 grs.

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Blood Poison.—Have a horse that commence to swell below ear and in throat many farmers have a little air slacked lime to the

idly and consumes the greatest amount is na of food in a short time. Therefore, if he of gives the greatest returns he must have something to assist his digestive organs. For this purpose I have found salt and charcoal the best thing that can be used. Put it where they may have access to it at all times. Provide plenty of trof room and construct the trofs so that the pigs can eat without getting in all over. Keep the trofs sweet and clean and do not allow any old food to accumulate and sour after the pigs have eaten their regular meals. Give good dry houses and keep the nests clean and sanitary for pigs that sleep in filthy, damp nests and become covered with lice and vermin will not thrive. The old saying that farm stock is what we make it, is perhaps more true when applied to the pig than to any other animal. He will stand more neglect and abuse, and at the same time he will respond to good care and treatment faster than any other farm animal. W. MILTON KELLY. New York.

CONDUCTED BY DR. W. C. FAIR, CLEVELAND OHIO.

Advice thru this department is free to Advice thru this department is free to our subscribers. Each communication should state history and symptoms of the case in full; also name and address of writer. Initials only will be published. Many queries are answered that apply to the same allments. If this column is watched carefully you will probably find the desired information in a reply that has been made to some one else. has been made to some one else.

watched carefully you will probably find the desired information in a registered Jersey the the discrete information in a reply that has been made to some one else.

Pneumonia.—I shall be glad to know what alis my suckling pigs and how to cure them? At first they seem to have a hard cold, sneezing a great deal, their they get sick they must have fever for they frequently leave the sow and go down to a small brook and stand in the water for an hour. They are very thirsty, bodies quite hot. At first I fed the sows buttermilk and middlings, but when the pigs commence to die feeding skimmed milk with middlings and give each sow a tablespoonful of stock food at a dose twice a day. These sows have the range of a meadow and a small piece of rape, but I see that there are four more of the pigs showing the first symptoms of the pigs s

navel infection, giving rise to rheumatism of joints.

Blood Poison.—Have a horse that commenced to swell below ear and in throat extending down neck and shoulder, then the skin broke open in several places and is hanging in shreds; some pus in all sores; they give off an offensive odor. S. F. G., Dorr, Mich.—Apply one part peroxide-hydrogen and two parts water and dust on one part iodoform and four parts borac acid twice a day after using the other medicine. Give 1 oz, hypo-sulphite at a dose two or three times a day.

Eczema.—Both of my horses seem to be in constant agony caused by an itching of the skin. They very often leave their feed to gnaw at themselves. W. B. S., Goodrich, Mich.—Wet them with one part bichloride mercury and 1,000 parts water two or three times a day and dust on some finely powdered sulfur occasionally and when the sores dry up apply one part coal tar disinfectant and six parts vaseline once a day. Give 3 drs. Fowler's solution at a dose three times a day.

Liver Disease.—I have a 9-year-old

a day.

Liver Disease.—I have a 9-year-old mare that has been gradually failing for the past two years. Had her teeth dressed by a veterinary some time ago, but she eats no better than before it was done. She raised a colt last year, got with foal soon after foaling, some time later aborted. The white of her eye has a wellow appearance: she also has some discharge from nose. M. W. W., Coleman, Mich.—Your mare has liver trouble. Give 25 grs. calomel at a dose daily for four days, discontinue for a week and give three doses, one dose daily, then no more for ten days. Also give 1 oz. phosphate soda night and morning, commencing right away and keeping it up for two or three weeks. If she has a torpid liver this will help her and if she has an enlarged liver she will perhaps never get well.

Barrenness.—I would like to know what

this will help her and if she has an enlarged liver she will perhaps never get well.

Barrenness.—I would like to know what I had better do with a registered Jersey cow that I have tried to get with calf since last December. She has been in heat regularly every nineteen or twenty-three days since. I examined her and found the oss hardened and July 17 I called our local Vet. who also found the oss very hard and difficult to dilate. He used a preparation of belladonna, besides the hand. Some hours later she was bred and also three weeks later an attempt was made to have her served after using the belladonna. She is five years old and is apparently healthy. E. R. F., Watervliet, Mich.—You had better try the yeast treatment on your cow, at the same time keep the oss dilated.

Nodular Disease in Sheep.—I have lost several sheep; nearly all of them appear to have a swelling in throat and strange to say only one or two are affected at the same time. H. M. F., Plainwell, Mich.—The swollen throat is no doubt the result of other ailments and I am inclined to believe that your sheep die of nodular disease, a parasitic bowel ailment. Mix equal parts powdered sulfate iron, gentian, ginger and quassia and give each sheep one-half teaspoonful at a dose in feed once a day. Also give them a teaspoonful of gasoline in two ounces of sweet milk or the same quantity of sweet oil, one dose only. Perhaps a change of pasture would be the proper thing to do.

Cow Gives Bloody Milk.—I have a cow that is giving bloody milk out of one teat and I would like to know what to give her to ston it and would you devise me





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SWING STANCHION, with frame, fitted to Sta-ble. Warranted the BEST on the market. Sold on 30 days trial. Also Perfection Water Basin, Steel Stall and Manger Partitions, Litter and Feed Carriers. Send for 20-page Booklet.

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the popular big, dark faced sheep, with long, heavy wool. My rams are faced according to their form, size, wool, etc. I do not offer a sheep that should not be of satisfactory service to you. Ram lambs, weight 70 to 125 lbs. Grade X \$15; grade XX \$20; grade XXX \$25. Have rams one to five years, weight 180 to 250 lbs. Grade X \$15; XX \$20; XXX \$25. Can also supply you with registered hornless delaines, Blacktops and Cotswold rams. Don't delay, order now and I will pay the express charges ROMEYN C. PARSONS, Michigau's largest breeder of good sheep—over twenty years in the business. Address Grand Ledge, Michigan.

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Also 20 good ewes. 8. J. COWAN, Rockford, Mich.

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SHROPSHIRES, all ages, both sexes, extra quality and breeding in lots to suit. Also a few large, robust Rambouillet and Franco rams. Will be priced so as to move them quickly. Correspondence and inspection invited. C. LEMEN, Hamburg, Mich.

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Will make special prices for thirty days, on ewes from 1 to 3 years old, all bred to Imported Cooper, and Mansell rams to lamb in March and April, also on very choice ewe lambs, this is to make room for an overy choice ewe lambs, this is to make room for an L. S. DUNHAM & SONS, Concord, Michigan,

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A few bred sows left yet, but no boars. Spring pigs of best families. Guernsey Cattle, Plymouth Rocks, Pekin Ducks and M. B. Turkeys. HUPP FARM, Birmingham, Mich., G. C. HUPP, Mgr.

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1 dr. powdered digitalis, 2 drs. muriate ammonia at a dose in feed two or three times a day.

Navicular Disease.—I have a 6-year-old mare that went lame in right fore foot some time ago. She points her foot out in front of body more or less for the past six months. When used on the farm and not driven on the road she was much better. My neighbor is a fairly good horseman, he believes it is coffin joint lameness and if so what do you advise me to do? M. A. N., Watervliet, Mich.—I am inclined to believe that your neighbor is right, the lameness is in coffin joint. Blister coronet with cerate of cantharides once a week; you can safely larly advertised in this paper.

Surfeit.—I have a Jersey cow that is troubled with a skin affection, whenever she is fed dry feed—the skin on lower portion of udder and around teats thicken and swell; this swelling also extends under belly to fore quarters. Her milk veins hang down and appear to be filled with either water or pus. Have had her treated twice by a local veterinarian; they tell me unless she is quite valuable I should sell her. I fail to notice that it affects either her health or milk supply. Can she be treated in some way to prevent it, as she is too good a cow to part with if it can be cured? S. A. S., Lakeview, Mich.—Apply one part sulfur and four parts lard to sore parts of skin once a day. Give her 2 ozs. sulfate of soda at a dose in feed once a day. Also give day.

Sitfast—Fibrous Tumors.—I have a 3-year old colt that has a solid bunch on

with if it can be cured? S. A. S., Lakeview, Mich.—Apply one part sulfur and four parts lard to sore parts of skin once a day. Give her 2 ozs. sulfate of soda at a dose in feed once a day. Also give ½ dr. iodide potassium at a dose once a day.

Siffast—Fibrous Tumors.—I have a 3-year old colt that has a solid bunch on each shoulder a short way above the shoulder joint. These bunches came on during haying season—have applied simple home remedies, but they have failed to reduce the enlargement. A week's rest has not helped him much D. L. G., Midland, Mich.—Drugs will not reduce a bunch of this kind entirely and as they do no special harm you had better delay cutting them out until you can give him rest after the operation. When you cut them out apply one part iodoform and three parts borac acid twice a day. Enlarged Thyroid Glands.—My 2-days-old colt was born with a lump in throat which is quite moveable. What treatment do you recommend for such a case? R. A. W., Kingsley, Mich.—Give the colt of drops syrup iodide iron at a dose once a day until the bunch reduces.

Mange.—I have a horse that has some sort of skin trouble affecting the lower parts of her legs—there is a sort of white scale and a terrible itch. When permitted to rub she makes the leg bleed. This skin trouble came on two years ago and has continued ever since. Have washed her thoroly with coal tar dip every ten days, but it fails to do her much good. I also have two pet lambs that cough. E. E. T., Flint, Mich.—Mix one part flour sulfur in five parts lard and apply to sore parts once a day. Also missoive ½ lb. sugar of lead in a gallon of water and add one pint tincture opium and apply to sore parts once a day. Also missoive ½ lb. sugar of lead in a gallon of water and add one pint tincture opium and apply to sore parts once a day. Also missoive ½ lb. sugar of lead in a gallon of water and add one pint tincture opium and apply to sore parts on one sate the result of stomach worms. Give a small quantity of a 1 per cent solution of coal tar creosote to oftener than twice a week for three

well not be fleesally to give that mean cine oftener than twice a week for three weeks.

Infected Bull.—Have a bull that served a cow May 24th; this cow had aborted about three weeks previous; two weeks later my bull showed symptoms of having been diseased. Our local Vet. was called and he thot it a case of gonorrhoea, and terated him accordingly; the discharge appears to have ceased, but considerable swelling remains. I have injected him twice a day for the past ten weeks and the swelling is almost as great now as it has been at any time. C. E. M., Plymouth, Mich.—Dissolve 30 grs. protargol in a pint of water. The best way to dissolve this medicene is in a bowl or bastn, scattering the powder over the surface of water; then pour it into a bottle keeping it corked and in a dark, cool place. Inject him once or twice a day. After using it one week apply it one-half the strength. Also give him 3 drs. citrate potash at a dose in feed three times a day; feed him mostly grain and well-cured dry fodder. The only way to tell if he is free from infection is by an examination of the urine microscopically; this will determine if he is free from infection or not. The urine should be collected from the first that is passed in the morning.

Indigestion.—I have a calf that was

fection or not. The urine should be collected from the first that is passed in the morning.

Indigestion.—I have a calf that was quite thin when born, have fed it fresh milk for the past five weeks; it is growing some, but not as rapidly as it should. It usually bloats after drinking milk—what had I better do? J. E. B.—Give your calf 20 grs. bicarbonate soda in ½ pint cold water as a drench, 20 minutes before you feed him, three times a day. Infectious Ophthalmia in Cattle.—Will you advise me what to do for my cattle? First symptoms—tears run down the cheeks, later a white spot appears on eyeball which sometimes causes blindness. The eye of one blind cow is badly swollen and the eyeball, after, swelling badly, burst. Our local Vet. calls the disease ophthalmia, but his treatment fails to effect a cure. H. L. S., Hillsdale, Mich.—Your cattle suffer from infectious ophthalmia and, of course, some of them may lose the sight of an eye. Give each one 1 lb. of epsom salts as a cathartic. Also give ½ oz. powdered nitrate potash at a dose in feed night and morning; this will reduce their fever and stimulate their kidneys into action. Dissolve 2 grs. sulfate zinc, 1 gr. sulfate atropia in 1 oz. of clean water and apply to eyes once or twice a day. Also blow a little calomel into eyes once a day and it will do no harm to give your cattle 25 grs. of calomel at a dose in feed twice a week, until their eyes get better.

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able press for many seasons to come.

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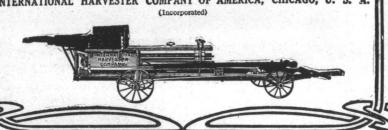
They are specially valuable to the average farmer and hay
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and the work can be done at times when there is little else for either man or
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have to bale into solid, compact and uniform bales. The one-horse press, an
ideal baler for small hay raisers, turns out 14x18-inch bales. Under average
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15 tons a day—a profitable machine for joint ownership among neighboring
farmers or doing contract baling.

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I. H. C. presses are not horse killers, are convenient to operate and there is no pounding or uneven draft. Both are full circle presses, and do not worry the horses with constant stopping, backing and starting.

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The Lawrence Pub. Co.,

Detroit, Mich.

DETROIT, AUGUST 21, 1909.

CURRENT COMMENT.

A man who is

A Worthy Ambition. well in known Michigan farming circles was recently heard to remark that his greatest ambition in life was to make farming pay. When his attention was called to the fact that prices for all agricultural products are high and that the business of agriculture is now in a relatively more prosperous condition than ever before, he said: "Yes, I know all about that, and a good deal of this talk about the great prosperity of the farmer makes me tired. The average farmer makes a good living and a little competence for the proverbial 'rainy day,' but he does it by overworking himself and his family, rather than by the actual profit derived from his business after a proper allowance has been made for that labor. My ambition is to make it profitable as a business investment, besides paying a good day's wage for a fair day's work to all who are employed upon my farm and to leave a fair remuneration for the grey matter put into its management above a reasonable rate of interest on the investment, and that without impoverishing the soil, so that the next generation will find it at least as productive if not more so than I did."

This man has a large farm, well stocked and equipped. He is a farmer by instinct, training and education. He has been in the business all his life and is in it to stay, but his business capacity is such that a good deal of his time is demanded in the management of other live on his farm, altho he gives its management his personal attention. In fact. his relation to his farm is practically the same as are his relations to the other lines of business in which he is interested, except that it holds a greater said that his farm, stock and equipment inventoried at about \$30,000, and that he time, that and effort put into its management.

The Michigan Farmer Surely this is a worthy ambition, and in different sections of the state, and of the United States. from what we know of the gentleman's comparing the different exhibits from is now being given success in farming we believe that he the standpoint of variety and general ing, etc., is believed. will not only attain it, but that his suc- excellence. The interest promoted by a cess will be a most valuable object les- personal exhibit will stimulate any son to others. There are many who will farmer in the state, to get more out of

> light harness horse of the world, and are insisting on the most rigid inspection Minor Heir, also owned by M. W. Sav- of ships and cargoes from the orient, for age, proprietor of International Stock fear that rats who carry diseases of a Farm of Minneapolis, Minnesota, and country. Farm, of Minneapolis, Minnesota, and a horse that promises to equal Dan premier attraction, while the special horse show which will be inaugurated this year for the first time will prove a close second. The daily races between two air ships will provide the best possible entertainment for the children as well as for their parents and other entertainment features with which fair patrons are familiar will add to the general enjoyment to be derived from attending.

The comfort of fair patrons has been better provided for this year than ever before in the laying of several thousand feet of new cement walks, while reports indicate that the exhibits in every department will be representative of the state's best products. The ability of Detroit to house and feed all comers, which has been so fully demonstrated as to admit of no doubt, removes this problem from the serious consideration of prospective fair patrons, so that there is every reason to expect that the attendance at the State Fair will be larger this year than ever before. The Michigan Farmer will have a tent on the grounds as usual, at which every reader is invited to make himself at home.

HAPPENINGS OF THE WEEK.

While the situation does not promise immediate trouble between Greece and Turkey, the settlement of affairs concerning the island of Crete, is offering more problems than was expected. The young Turk party is not putting full confidence in the present Turkish administration, and for this reason, the recent acquiescence in the settlement as outlined by the protesting powers of the island, is not preventing the boycotting of Grecian goods in Turkey, and a general feeling that the differences must finally be settled by recourse to arms. The powers that recently withdrew protection are now sending warships to the island. The cabinet of the Creitan government has resigned and the control of affairs is now in the hands of provisional committees. The Greek flag which was raised on the fort at Canea has not been lowered.

What promises to be one of the most

The political situation in Mexico is becoming acute and it will not surprise those in touch with conditions if a revolution results from the dissatisfaction with the present administration, which has gotten such a hold upon the political situation as to be able to perpetuate itself. American officials arrested men who were operating from Texas on plans to start a rebellion; the scheme involved a plot to attack five different points along the border to get the attention of the federal troops when attacks upon interior places would be carried out. The Maya Indians are taking advantage of the situation to express their protest to the governme and many small conflicts have occurred between them and the napolitical situation in Mexico nation to express their protest to the government and many small conflicts chief engineer of the United States for have occurred between them and the national soldiers. The Mexican government Bay City and Saginaw. While the traffic on the river is small it is the opinion of guns into that country no matter what of the local business men that a large the pretense, and a ban upon the sale increase will result from the deepening of three channel.

President Taft appointed a commission president Taft appointed a commission president Taft appointed a commission president.

Affairs in Spain and Morocco have not cleared, the Spanish government is still struggling to bring order out of conditions at home and organizing troops to put down the tribesmen in Morocco. In the latter district the natives are strong and in almost every engagement, of which there have been many, they are equal to the Spanish forces. At Barceloina and other cities of Spain the rebelion continues. Many military executions have occurred.

The English government is not a little pleased at the general migration from other countries to her shores, of men of wealth. Most of these men come from continues.

the United States. The freedom which is now being given to citizens of this kind in the way of driving, fishing, hunting, etc., is believed to be the reason for the movement.

The imperial defense committee of England has decided in favor of the dirigible balloons for the British army upon the grounds that aeroplanes do not go high enough to be useful in war campaigns.

country.
Sir Henry Babington, secretary of the Sir Henry Babington, secretary of the London postoffice, has accepted the presidency of the Turkish national bank which is just being established. Vienna is experimenting with a trackless trolley line, and it is reported that the examination thus far is proving very successful.

successful.

National.

On Sunday afternoon a severe storm swept over the eastern part of Detroit and Belle Isle, laying flat hundreds of trees, killing one person, injuring many others and drenching thousands of others. A number of small craft on the Detroit river were sunk or suffered severely.

severely.

The United States Steel corporation is

The United States Steel corporation is

ellminating all employes who have any tendencies toward unionism.

Evidence has been received and all is now ready for the fraud cases against Gov. Haskell, of Oklahoma, by the United

Gov. Haskell, of Oklahoma, by the United States government. The cases grew out of land frauds said to have been perpetrated by the executive of the southern state in securing Indian town lots.

Recently the postoffice department advertised for inventions to take the place of twine for tying mails. The department uses \$225,000 worth of twine annually. Many devices have been submitted and they will now be tried out, the time for submission of same having expired.

cxpired.

The battleship South Dakota was presented with a silver set while it was building, thru the generosity of the people from the state after which the vessel was named. Before the vessel was finished the gift was mislaid and now the vessel is in service and the silver is wanting.

finished the girt was missian and the vessel is in service and the silver is wanting.

A process was recently invented for the sterilizing of books.

English agricultural societies have started a crusade against the English sparrow. Bounties are being offered for and birds.

sparrow. Soundes are being offered for eggs and birds.

In many English schools whiteboards, are being substituted for blackboards, the change being advised because of giving the schoolrooms a lighter appearance.

Ninety per cent of the street railways

Ninety per cent of the street railways of the country are now run by electricity as compared with 15.5 per cent in 1890. Training that gives the men a feeling of real war is being given by the war department to volunteers from the eastern division who are making a fainted defense on the one hand, and an invasion on the other, of the city of Boston. An out-door school will be conducted in Detroit for a period of four weeks to determine the advantage to students subject to tuberculosis of studying under conditions more favorable to the overcoming of the disease. The school will be carried on in a tent. Other cities are carrying out similar experiments, and should they prove helpful such schools will become a permanent part of the educational system of most of our large cities.

A peculiar epidemic has taken its fifth victim in Durham, N. C., where the phy-

cities.

A peculiar epidemic has taken its fifth victim in Durham, N. C., where the physicians are unable to assign any cause for the disease.

The strike at the docks at Fert William, Ont., has been disturbed by the presence of milita, and strict orders from the commander in charge gives the strikers little hope of securing their demands. mands.

mands.

The railroads of the country are preparing for handling the vast yields of grain of the west and the northwest. The outlook is good for the greatest harvest in the history of the country.

A movement is being considered to open up the Missouri River for navigation.

Ground squirrels are believed to Ground squirreis are believed to be responsible for the spread of bubonic plague in Sunol, Cal., and the authorities are out destroying the animals wherever they can be found.

Recommendation has been sent to the

say, "Oh, yes, it may be possible for him the State Fair in an educational way to make farming pay on this basis, with than would otherwise be possible. his large capital. That kind of farming is easy beside the kind which I have to practice. He has had a better chance than most of us." Yet this same man, like hundreds of others of our best and most prosperous farmers, has been thru the same experiences and overcome the same hardships to which the class mentioned succumb as "their lot." But in farming, as in every other business or profession, "there is plenty of room at large that would offer this advantage, and the Aside from this advantage, and the Cher educational features which have been mentioned in previous comments on the desirability of attending the State being regained. A new national bank is being established with the aid of British capital and management.

A Vienna doctor, after much speculation, has come to the conclusion that high colors are the cause of headache, and that a change to a lower and easier that a change to a lower and easier style of neckwear provides beneficial results.

The loss of British patronage in Turbies show is financial quarters during the last years of Abdul Hamid's reign is now being regained. A new national bank is being established with the aid of British capital and management.

A Vienna doctor, after much speculation, has come to the conclusion that high colors are the cause of headache, and there will be the conclusion that high capital and management.

The loss of British patronage in Turbies with financial quarters during the sist in farming, as in every other business or profession, "there is plenty of room at the top," and the man whose highest ambition is to make farming pay will make it pay, not only from a financial standpoint, but in that full enjoyment of life which can be realized only in the Patch's wonderful speed, will be the gratification of a worthy ambition. Here is profitable food for that on the part of every farmer, whether he is practicing general or special farming either on a large or a small scale. In attempting to make farming thus profitable on a large scale, this man has laid out for himself a harder task than the man who attempts to do the same thing on a small scale. In fact, it is only the man who has demonstrated his ability to succeed in any undertaking in a small way who is qualified to succeed on a larger scale. There are hundreds of examples in which it has been demonstrated that the small farm on which some line of farming has been highly specialized has been made to yield an income almost past the belief of the average man, and that even when devoted to some specialty to which a considerable area of land is generally conceded to be indispensable. An ambition such as was expressed by this man will give any of us a keener interest in our work and a more wholesome enjoy-ment of our successes, while our failures will only prove blesisngs in disguise, stimulating us to further efforts and adding to the sum of our knowledge which will make for success. An ambition to make farming pay; pay in dollars and cents which will make possible the enjoyment of the comforts and some of the luxuries which make life the better worth living; pay in the wholesome home life and training for the children of the family, and pay in the satisfaction of a good work well done, which will be a helpful object lesson to others, is certainly a worthy ambition, and one which will make the man who entertains it a

better man and a better citizen. With less than two Prepare For the weeks intervening be-State Fair. fore the opening of the

would avail themselves of the opportu-

State Fair, those who

nity to attend this leading agricultural show of Michigan should be making their plans and preparations to that end. But with little more than a week intervening before the date at which entries may be made will have passed, those who would avail themselves of the opportunity of making competitive exhibits of any kind must act at once. In previous issues we have cited some of the many benefits which would accrue to any Michigan farmer from making an exhibit of some of the products of his farm at the State Fair, as well as at the lesser agricultural shows to be held in the state during the coming fair season. With an apnity to attend this leading agricultural the coming fair season. With an apparent realization of the need of a more representative exhibit of farm products at this great fair, the officers and directors of the State Agricultural Society have this year revised the State Fair premium list, in-so-far as it pertains to general farm products, along liberal lines. From three to stx liberal cash premiums are hung up in each of these classes, and business enterprises, so that he cannot in most of them the professional exhibitor is barred, as in the classes for miscellaneous forage plants in stalk and in head. This fact, together with the fact that the preparation of an exhibit of this kind does not entail the work and expense incident to the preparation of live interest and attraction for him, as is stock for exhibition, should lead to more indicated by the expression above general entries of the common farm proquoted. Upon being questioned as to ducts, including grains, seeds, forage his ideas of profitable farming this man plants, vegetables, etc., than has ever been seen at an agricultural fair in Michigan. By acting upon this suggestion that an aaverage net income of \$2,500 those who avail themselves of the opporper year would be as low a figure as tunity will not only help to show all the would conform to his idea of profitable people who attend the State Fair what agriculture, as it would pay a fair rate the farms of the state are capable of of interest on the investment, and pay producing in these lines, but will at the him only a reasonable amount for the same time reap the unquestioned benefit of the opportunity to compare their own with other products of the kind grown

Magazine Section

LITERATURE POETRY HISTORY and **INFORMATION**



The FARM BOY and GIRL SCIENTIFIC and MECHANICAL

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

Harvest Time Among the Mapuche Indians

By D. S. Bullock.

HE methods of harvesting grain practiced by the Mapuche Indians, of Chile, South America, are primitive in the extreme and pictures of from three to six feet high. the various processes might easily pass for those belonging to Bible times rather than to this enlightened age.

Until recently harvesting machinery was unknown in Chile, and even now it is so in all parts of the country not near to railroads or large towns. Binders, reapers or headers may now be seen on the large farms of the Chilian and foreign colonists, but so far as the ordinary Indians are concerned these might as well not exist.

The Mapuches cut their wheat, not with a scythe or cradle, but with a sickle, and leave it lying in small piles about the size of an ordinary sheaf. This way of cutting is necessarily very slow; a good man can cut about half an acre a day, for which he receives the nominal sum of \$1.60 to \$2.00 Chilian (32 to 40 cents U. S.) The wheat is not bound in sheaves and stood up, but is simply left on the ground until ready to cart, which is usually very soon, as cutting is never done until the wheat is dead ripe and

Instead of driving around the field and gathering up the wheat as we do, they bring as many carretas (carts) as they possess, stand them at intervals about the field and carry the wheat to them. These carts are not like the ordinary ones used, but consist generally of wooden wheels and axle, and two rough sticks placed across the axle so as to form with it something like a huge letter A, with the cross-bar very low down. On top of these is made a rude platform of

boards and along the sides are stakes atados (bundles) with a rawhide strap

carts.

about six feet long. When the cart is All the family unite in loading the sufficiently loaded the grain is firmly tied One man loads while the others down with a rope, rawhide lasso, or a

and the women bring up the wheat. The rope made from a kind of sedge that older women and the children carry the grows quite abundantly along the small strong enough to stop horses. In the sheaves together and tie them up in streams. When all the carts are loaded

Cutting the Grain.-Indian Boys from the Mission School Cutting Barley.

The boy in the center is eating the commonest food of the poorer classes, harnia tostada, (toasted food). It is flour made from wheat toasted and ground and is nearly always eaten with cold water. Workmen usually carry a small bag of this flour, together with a cow's horn and spoon with which to eat it. The Indians when cutting generally wear nothing but trousers.

they are drawn to the threshing floor to be emptied.

The threshing floor is simply a circular yard from 25 to 50 feet in diameter, from which the sod has been carefully cleaned off and the ground hardened by This is surrounded by a fence center of this yard the wheat is piled, leaving considerable space around the outside unoccupied. A little of the pile is then pulled down, so as to cover the entire floor, and all is ready to begin threshing.

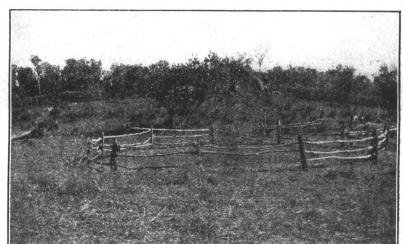
Mares are almost invariably used to tread out the grain, as they are much more plentiful than horses, and do practically nothing else for the entire year. Round and round they are driven, one man standing on top of the pile of wheat with a long bamboo and another following on horseback, until the entire pile has been pulled down and thoroly threshed, which is when the straw is all brokenup into pieces five or six inches long.

Then comes the cleaning or winnowing, which is most interesting. The wheat and straw are first piled on the windward half of the corral, leaving the other half entirely clean. Then, beginning on the leeward side of the p!le, the wheat is tossed up to the wind-for the threshing floor is always made in an exposed place -until the last remnant of straw and chaff has been blown away and nothing remains but the grain. This usually requires handling it all over three or four times before the cleaning is complete.

The tools are most primitive-wooden carts, wooden pitchforks having two or three tines, which are simply small trees with the branches cut off and sharpened; the shovels are invariably of wood.



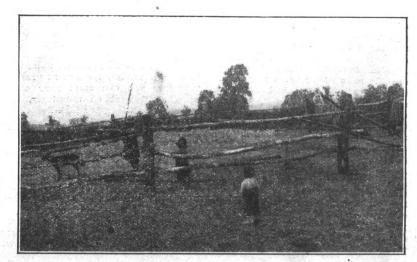
Loading .- One Man Loads While the Others Carry to the Cart.



The Threshing Floor (Era) and Corral in which the Mares are Kept.



The "Threshing Machine"-Mares and Colts-Doing its Slow, Tedious Work.



Winnowing .- Tossing up Grain so that Straw and Chaff May Blow Away.

means of thin pieces of bamboo in such wheat is taken to the ruca.

For a granary, rough boxes and barrels are used or even more primitive receptacles, such as the skin of a horse or cow, or a large hollow log.

Weeds are very bad, caused principally by the methods of cultivation and the crosses planted in the wheat fields, tum), wild turnip (Brassica napus), sev- posed to keep away cutworms and insure Janes has blabbed on me," he exclaimed eral kinds of vetch (Vicia), common May- a better harvest. "No, Mr. Harton, no one has told anyweed (Anthemis cotula), and clotbur.

only doubled.

(September or October), and sidered worthless.

but thru the influence of so-called civi- He motioned Will to a seat and said a manner as to form sacks in which the lization these have in many localities kindly: "Will, I wish to give you a little wheat is taken to the ruca. degenerated into simply drunken carou- fatherly counsel. I shall not need your sals, often resulting in fights, and even services any longer. I shall retain Arthur deaths in some cases. These meetings, Janes. You will want other work, but altho still held in some localities, are becoming less common each year.

fact that pasture is never sown, the peo- custom they have learned from the Chilple depending for pasture for their stock ians. One may also see planted at interon what comes up of itself. Among the vals over a field branches of the Wintworst weeds in the wheat may be men- er's Bark (Drymis Winteri) the sacred from me constantly." tioned tares or darnel (Lolium temulen- tree of the Mapuches. These are sup-

If there should happen to be a thresh-It is a common practice among both ing machine within three miles or so the the Indians and the poorer class Chilians Indians often draw their wheat there to to borrow wheat for sowing, having to be threshed, paying toll of 8 to 12 per pay, at harvest time, two sacks for one cent; at least that is what they are supborrowed. Selling the wheat in the posed to pay, but as many of the owners straw before harvest, when about one- of the machines do not either weigh or half the market price is paid, is also a measure the wheat, but simply guess at indispensable to your company. And recommon and deplorable custom. By the amount of toll, they frequently pay these and other methods it often happens 15 per cent or more for the threshing. that a man has nothing left of his wheat The straw remains at the machine and, at the end of harvest, or possibly he may strange as it may seem, no use is made not be able to pay all his wheat debts, of it, not even for manure. Generally bright and quick. You will succeed if when they go over until another year, it is all burned immediately after harvest. At times some of the more enter-Formerly the Indians always had prising Indians keep some of the chaff prayer meetings, called ngillatun, in the for their horses, but as a rule it is con- "I am fired; just my luck; I never work

ARTHUR'S METHOD-By Nelson A. Jackson.

"Say, Arthur, I think that you are foolish.

coil for an electrical machine,

Arthur replied. It belongs to him and I have no right to waste it."

and I know him better than you do."

coming?" asked Arthur.

to have him find me idle, but it doesn't make any difference when he is out of no avail. the room or his back is turned. I guess can't be of very much importance, because I am getting bigger wages than you do."

"I know that your wages are higher, but what I earn I wish to earn honestly." "Do you mean to say that you think that I am dishonest?" Will retorted an-

not do as you do and have a clear conown standard," was Arthur's quiet reply.

you can't mix the two. I suppose you think it is necessary for you to come to morning.

"No, I do not think that it is at all that I can about electricity. I wish to ing." go to a technical school and to become an electrical engineer."

anywhere.

Mr. Colman came slowly down th between the rows of workmen and boys. He stopped by the side of Arthur Janes, spoke kindly to him, made a few suggestions and passed on. This was a compliment to Arthur, as Mr. Colman seldom spoke to his employes while they were at work. When he did, it was al-

As they were passing out after the day's work, Will Harton gave Arthur boy. another tongue lash with the words, but your goody-goody ways won't help you any in the long run."

Arthur had graduated from the village You just keep working, working high school the preceding spring, where all the time, just as if you were afraid he had fitted himself to enter an engi-of being idle for one minute." neering school. He had been bitterly Will Harton had left his work for a disappointed when in the early summer few moments and stood beside Arthur financial losses had made assistance from Janes, who was industriously winding a his father impossible. He had then determined to enter the Colman general "No, I am not afraid of being idle," electrical works. Here he went at it to expenses and at the same time be obtain-rthur replied. "I am naturally lazy learn as much as possible concerning ing practical experience, which is so necelectrical works. Here he went at it to expenses and at the same time be obtainenough, but Mr. Colman pays me for my electricity and its practical workings essary in your chosen profession." while earning money for his college course. Arthur had never been accus-"You're too particular," Will said, tomed to steady work and it was hard ness," and Arthur's eyes sparkled with "Mr. Colman doesn't care if we take a for him to don blue overalls and keep at joy. little time off now and then. I have his employment day after day. He rang been working here longer than you have true and soon realized that what had his employment day after day. He rang seemed a misfortune was in reality a "Why are you so quick to get back to blessing. He spent his evenings studying your work, then, whenever you hear him and reading along the line of his work. Will Harton was jealous because Will flushed guiltily. "Oh, well," he Colman paid more attention to Arthur answered, 'I don't know as I should care than to him. He was continually trying to get Arthur to slight his work, but to

The next morning when the men came which announced a meeting of all the idea." employes at the noon hour. lunches had been eaten the men gathered in the large store room on the first floor. Mr. Colman came before them with these always have their heads full of ideas words: "Men, what I have to say hurts and their pockets empty of money. How me and will entail hardship on many of long ago was it he told you about hisyou as well as myself. With few excep-"I can't judge you. I know that I could tions, you are good workmen. I have no possible." complaint to make. You know that dur-Each one of us must have his ing the past few months the American Sol Simpson has anything to do about it." people have been facing a financial crisis. "I must say," said Will, "that you I have been afraid it would reach us and have altogether too much Bible mixed up it has. Our sales have fallen off over with your ideas of business. I tell you, one-half and several big concerns which owe us large amounts have failed. As a result, it will be necessary to lay off a his, have you?" shop a half hour early each large portion of you. At present all the married men will be retained and a few others, who will be notified. needed, only I am anxious to find out all need not report for work Monday morn-

anxiety. He wondered what he could find what to do about it." "Oh, well, you will have to lose that to do. He might possibly be retained, conscience of yours, before you get along but he that it hardly possible, as he was There's lots of people it would pay you "I think not."

The conversation was proken off at this point, as Mr. Colman was heard approaching and Will made haste to approaching and Will made haste to approach his place and resume work.

The conversation was proken off at had a chance he slipped over to Arthur's dollars and a half last—" perform. Probably he has part of that is dear you out of seven had a chance he slipped over to Arthur's dollars and a half last—" perform. Probably he has part of that will be used and said, "I'll bet you that I keep "O, well, I guess I won't decide on hundred dollars by this time."

And so Mrs. Bennett went, but in one decide now. I want to tell you about thing they were disappointed. Sol Simp-What do you think you'll do

"I have absolutely no idea at present." plow some more this afternoon.". course," Will went on tauntingly, "and armchair. pay your way with your high-flown ideas of business principles."

were at work. When he did, it was aldignant to even look at with.

With a pleasant smile and a helpful glad that I am not burdened with your 'It made him mad', an' 'it made him geneous, miscellaneous sort imaginable,
narrow ideas of right and wrong," Will blue', an' so he went on. I couldn't make including two hand saws, a chain. a remarked, as he turned to talk to another out at first what the trouble was.

to report at Mr. Colman's office at noon. after he had died an' left a house

you have one lesson to learn before you can be successful anywhere. You are at It is very common to see small wooden present worling on the principle of doing as little as possible and getting as much as possible. You are in the habit of wasting at least one hour a day of my time. In other words, you have stolen

> Will was white with rage. "I'll bet

> "No, Mr. Harton, no one has told anything. I have merely observed. An employer sees more than his men often give him credit for seeing. I know that I have used harsh words, but they are true. Now, my boy, the thing for you to do is to give your next employer your best. Then, and only then, will you become member it is the indispensable men who of my words. You have ability and are you are honest with yourself and em-ployer. That is all."

As Will went out, he said to Arthur, up anywhere.'

Mr. Colman, who had followed him to the door, caught the words and said, somewhat sharply, what you make it." "Your luck is just

Arthur entered the office. Mr. Colman took him by the hand and said, "Arthur, I have been more than pleased with your work for the past few months. I should like to keep you, but I have something better for you. I am well acquainted with the superintendent of the electrical works at Orton. I have secured a place for you. There you can earn your college

"Thank you, thank you, Mr. Colman, how can I ever repay you for your kind-

"My boy, you have earned it."

"I shall try to prove myself worthy of your trust and kindness," "You will, I have no fear." And he did.

HOW SOL SIMPSON BECAME A BUSINESS MAN.

BY MARY ROLOFSON.

"I see Sol Simpson this mornin'," rethat fifteen minutes wasted now and then to their work they found notices posted, marked Ed Bennett, "an' he's got an

Mrs. Bennett sniffed contemptuously. "O yes, I 'spose he has. Them Simpsons are master hands for ideas.

"But this time it's really something

"Possible never gets to be likely when "No, but something might come some-

time from some of Sol's notions." Mrs. Bennett eyed her other half in-ently. "Ed," she said, "you hain't let tently. Sol have any money for this notion of

He langhed uproariously.

"Well, now, that's most too good," he The rest said when he could find breath. "I thor you knew me, Betsey. I've a great mind to get mad at you. Such an insult as That afternoon Arthur was filled with that! I declare, I don't exactly know

"You'd better not get mad at me.

restin'. I've got to

Arthur made no reply. He was too in- he couldn't talk of anything else. 'It not have many things to begin business dignant to even look at Will. "I am was a shame,' he said. 'It was a pity.' with. They were of the most heterohadn't heard of nothing terrible that had When the pay envelopes were received happened up there at the sale. I 'sposed "I see Old Colly is getting stuck on you, at the close of the day's work, Will and it was just a common, ordinary, every-Arthur each found a slip requesting them day sale as any old man might expect "Come what may, I shall always try to do what is right," was his only reply. Wait a few moments," Mr. Colman said kept on, an' by an' by I begun to see "Mr. Harton first, Mr. Janes, if you will barn full of goods behind him. But Sol fallen.

often blankets are pinned together by asked God to grant them a good harvest; and closed the door to his private office. what was worryin' him. Reuben's old watch had been sold for six dollars. fairly made his head ache, he said, for he knew all about that watch and he knew it was a good one. I was a leetle sorry for Sol, for I that he wanted the watch for friendship's sake. He an' Reuben were uncommon good friends and I was wishing Reuben had seen fit to give Sol the waten, when he changed his tune and began to lament about the rifle. That was a pity, too, and a shame. That had been sold for nothing-almost-and Soi was all cut up about that as bad as he was about the watch."

"Reuben did have a good watch and a good gun. I know he did. He was a great hand to buy the best he could get of everything."

"Yes, then there was a lawn mower that hadn't been used hardly any, an' a fine, double-extra hammock; an' so Sol went on with a list as long as your arm. He said he never felt the lack of money so in his life as he did at that sale. I had had a hundred dollars', says he to become foremen and managers. I start- me, 'a hundred dollars, an' no more, an' ed from the bottom and know the truth no prospect of a job, I'd have put every cent of it into that stuff of Reuben's'."

"Yes, I'll bet he would. It would be just like him to buy up a lot of old stuff that he hadn't any more use for than a cat has for two tails."

'So I that. But Sol says, 'I 'spose you think I couldn't make anything by such a trade'. An' I 'lowed I didn't see much chance of it, for Sol never goes hunting, you know, and he hain't got any farmnot land enough to turn that lawn mower 'round on. 'Well, sir,' says he, if I'd had that hundred dollars, and had bot all I could of Reuben's stuff with it, I'd set up in store-keeping, I would, by jinks; an' I'd had the best second-hand store you ever see. An' I'm goin' to do it, too', says he. "Them chances that I had to lose at Reuben's won't never come again, but there'll be other sales, an' I'll be ready for the next, you see if Im goin' to work for John Dole all thru harvestin', an' every cent I earn, except a couple of dollars I owe Dan Lamson an' twenty cents I owe the shoemaker, I'm goin' to save for secondhand goods for my store. I've just found out what I'm fit fov. I'm goin' to astonish you natives that have been thinking I was trifling and no-account'. An' I don't know but Sol has struck the right thing at last."

'Where's he goin' to have his store?" "Well, that's where I'm concerned. He wanted to rent a corner of our barn-the corner nearest the road-but I told him I'd have to think it over before I said what I would do.

"We might rent him a place in the barn just as well as not," declared Mrs. Bennett. "I think I see a dollar coming We don't need to use all the our way. barn room we have. Do you think he'll pay two dollars a month?"
"Not very long," laughed Mr. Bennett.

"I wouldn't think of asking him more than a dollar a month. That would be pretty high, but perhaps the profits of the business would pay that."
"Well, one dollar a month would be

better than nothing. I never did understand what you built the barn so large for. We've never had it full."

Some little time later, Mr. Bennett, on returning from one of his frequent trips to town, reported that another sale was to be held.

"You must go to this one, Betsey," he "There's lots of furniture and said. household goods to be sold. You may be lucky enough to get some of the things you need real cheap. There's the little table for your plants that you've been teasing me for, and a new stovebrush, and a baker's dozen other things. one of the youngest and most inexpe- better to get mad at; for instance, that And if you don't buy anything it will be rienced of the hands. As soon as Will Jack Allen that beat you out of seven as good as a circus to see Sol Simpson

son did not "perform" as they expected He did not buy foolishly and recklessly. "Possibly you can start your college He settled down comfortably in his big He bot only things of real worth, and if they went up above two-thirds of their "He went to the sale up at Reuben value he stopped bidding. As a result, Carter's place yesterday, an' this mornin' he spent but a few dollars and he did small mirror, a lamp, two pillow slips, two tumblers, a bowl, a thimble, a dustpan, a broom, a clothesline, a bushel basket, some shoe polish and some soap. He brot them to the Bennett barn that night and he seemed somewhat crest-

"I've had no luck," he grumbled. "Ev-

erything went too high. If I could only MACK-A FAITHFUL AND INTELLI- ring to play it with apples, which he go to Reuben's sale again! But, then, GENT DOG.

such luck don't come twice the same

"I think you have done real well," said Mrs. Bennett. That clothesline I wanted that, but I was cheap enough. talking with Miss Hobart and didn't notice when it was sold. I'll give you fifteen cents for it-that's five cents more than you paid."

"I ain't going to trade that way," anregular opening. That clothesline ain't for sale yet."

"Well, well," ejaculated Mrs. Ben-"Sol, I don't know but you're nett. right. I don't know but you'll be one of them merchant princes we read of if while saying "good dog." you keep on."

thing at last. But I can't wait for sales, and collie with a little tan color on his stand. He seems to know and under-They don't come often enough. That's breast and legs and the pretty brown stand everything that is said, is so happy

THE MICHIGAN FARMER.

BY MACK PHILIP.

"Mack, can't you get the cattle?" Mack was up and all alert, for it was his master calling to him from the sup-

per table near the dining-room window. With a questioning look, which his master interpreted by telling him to go by the barn and thru the tall corn to the meadow beyond, and a merry wag of his nounced Sol. "I'm going to stock up my bushy tail he lay back his black ears and store first. Then I'm going to have a hurried thru the wet corn field, for it had hurried thru the wet corn field, for it had been raining. In a little while he brot the cattle, which he had carefully driven a mile, around thru the woodlot, received his master's approval, which was always a gentle stroke on the head

This dog is three years old and weighs "Oh, I expect it. I've struck the right about 60 lbs. He is a black shepherd dumb animals can appreciate or under- ma, grandpa went out to bed down the



Resting from His Labors.

too slow for a way of stocking up my dots over his eyes. He lives on a farm store and I'm going round from house in central Michigan and is busy every

"Well, well!" repeated Mrs. Bennett. about so willingly.

"Why, yes, I guess so. There's that back to Maine. It was forgotten and he wrote it wasn't worth while to send We've got umbrellas enough without that, and I should like the money, and like to get the umbrella out of the way. Probably I can find some more things if I look about a little."

And she did look about and she did find a good many things that were of use and yet not needed by them.

said to Mr. Bennett. "He's paid me two

"And don't forget we are going to save Sol's got the have to pay full price. price marked on all his goods, and he don't ask the price of new goods for any of them. That razor is worth the price to me all right. All I have to fear is that somebody will offer him the price before I do. But I guess with the store right in my own barn I can get to the

counter as quick as anybody."
"I never did think it of Sol, but he's developing a whole lot of business sense," continued Mrs. Bennett. "If he ever should (it isn't likely he ever will) but if he should happen to want a little ready money-not but a little, you know-and you had it to spare—and he would promise to pay a good rate of interest, I don't know but you'd better let him—"

"That just shows how women will change their minds," commented Mr. dairy cow; but, as subscriber says, this against a thing one day, and then the next go for it like a pickerel for the

"Now, Ed. Bennett," protested she, "I haven't done any such thing. know I-"

"But," concluded Mr. Bennett, still philosophically, "it's lucky for us men that they do change their minds some-

"You hain't got any old trumpery lay- drives the cattle into the stable, helps ing 'round that you want to sell, have feed the pigs by keeping them away you? Something good and something from the trof until their drink is poured cheap, mind you." from the trof until their drink is poured in, watches the barn doors when left in, watches the barn doors when left open, and helps to drive the sheep into umbrella that Abner left when he went the shed. He knows the horses by name, said, "I fink maybe it will be about Spot, singling any one of them out and bringing the collie, and her puppies." it up to the fence when asked.

mouth, and often brings his master's all agreed it would be something very coat from the field, finds his slippers for odd or funny. him, and hunts his hat to take it to him. He likes to carry the hammer, or a little station and we could see grandpa with water pail to or from the field or woods. the big black team hitched to the surrey, Last fall he would go to the corn field and we forgot everything but that grandback of the house and bite large yellow ma was waiting for us with a good warm "Sol Simpson's a real benefactor," she pumpkins loose from the vines. He car-dinner ready. ried more than a dozen of these, taking dollars and sixty-five cents for things them one at a time, by means of the light threw dancing shadows on the that I was glad to get rid of. Now I stem to the back yard where he would walls, mamma took baby boy on her lap can get Molly that fountain pen she has been wanting so much."

But when it came task, and the intermediate them are the start of the light threw dancing shadows on the lap can get Molly that fountain pen she has been wanting so much."

But when it came task, and the intermediate to grand a shadows on the light threw dancing shadows on the light threw stone he drops it at his master's feet a lot more on our purchases when Sol and coaxes him to throw it for him so is about tonight," declared grandma. gets his store to running," put in Mr. "that he may hunt for it. He will climb

Every evening he

"I've got my eye on a razor a ladder extending to a height of sixteen over in the train today. Suppose you tell that he bot of Eben Cross. I'd rather feet from the ground and safely descend, us and see if any of us guessed right," have it than a new one, and I shan't round by round. He plays ball, prefer- proposed Dorothy.



Ready and Anxious to go on Duty.

always eats when thru. He shakes about Tom, the gander. hands, sits up, walks upon his hind feet his nose and catches it. If allowed to he will sit upon a chair at table to eat off it. If there is anything he especially after having gobbled up his share, saw likes to get his honey box from a low they were kernels of corn. Bennie, who then does all sorts of cunning things to gander after that. have the honey fed to him.

He has the nice collie habit of resting his chin on your knee and gazing, with his wonderful brown eyes, into your own, apparently thinking over the untold story which only lovers and friends of our stand everything that is said, is so happy the last armful of straw he almost stepin his play, and does his work so willingly that many people might wisely learn a helpful lesson by observing him.

He is very much attached to his master and when the latter is absent Mack and bring out a little gosling to freeze takes a favorite position at the window to death during the winter," grandpa and watches, sometimes for hours, with a little interval of rest at times, until he recognizes the team, when he runs to meet him and to enjoy a short ride. In an apparent ecstacy of delight he will carry his master's gloves into the house and drop them by the stove, lie down contentedly by them and watch until his master comes in. Then, placing his paws upon his master's lap, he will, if allowed, kiss his face all over and lean his head and body affectionately against the arm and shoulder of his master. Thus snuggled up, he quietly and contentedly remains until put down.

GRANDMA'S STORY OF "TOM."

BY HARRIETTE V. DAVIS.

We were going on the train to grandpa's. The time seemed dreadfully long and, to keep Bennie quiet, mamma suggested that we try to guess what grandma's story would be about this year,

Each time we go there grandma has to house buying goods pretty soon—when day with the little chores which he has a perfectly new story to tell us. Grandpa I get thru harvestin'." been taught to do and which he goes calls her the "Nature Faker," whatever that means. I guess it's 'cause her stories are about animals and farm life mostly.

We each were to have one guess. Dorothy guessed that "It will be about the she is so cute, anyway." Bennie that it would be about the calves, or the He loves to carry anything in his little new colt belonging to Bess.

Just then the conductor called our

But when it came dusk, and the fire-

"You cannot imagine what my story

"We all tried to guess while coming

"Very well," agreed grandma.

At that we laughed, Bennie coming in and balances an apple or a cracker upon last, 'cause you see the joke was on Bennie. It was this way. One day last summer grandma gave us a pan of corn a plate and not leave any litter around to feed the fowls, and Tom, the gander, wants he looks directly at it, hitches up the bright buttons on Bennie's blue linen a little and "speaks." He especially suit and began to peck at them, thinking shelf; going straight to the kitchen he was a little bit afraid, kept backing away will "speak" for a spoon, which he also until he backed against a trof of water carries in his mouth to his master and and sat down in it. He never liked the

> We all told grandma we never should have thot of him.

"Shall I start at the very beginning?" asked grandma.

"Oh, yes, do!" we all chorused.

One night late last fall, began grandhorses. As he stooped over to pick up ped on Nance, the old grey goose. little yellow gosling was just behind her. "Of all things, if that isn't just like an old goose to sit on one egg in the fall exclaimed wrathfully. Picking up the ball of yellow fluff he brot it into the house in spite of Nance's protests.

After it was warmed and fed he put the gosling into a basket back of the kitchen stove, where we kept him until "Tom," as we named him, became a nuisance by following me about the house



Please, Give Me My Supper.

making shrill protests whenever I shut him out of a room. So grandpa took the gosling to the warm basement of the barn where he grew into a big gander in spite of the cold weather.

You know last summer when you were here the gander would fly over the tall fences to sit under the rose bushes by the gate at night instead of going into the shed with the other fowls. He was always a queer bird.

One day grandpa came chuckling to the kitchen door and told me to "just come out and look at Tom." There near the door sat the gander hovering one of Spot's tiny puppies. Every time the puppy stuck his head out thru Tom's feathers Tom would carefully poke it under his wing again.

Poor Spot was almost frantic with fear, dancing about the gander and barking madly, but keeping a safe distance from the gander's sharp bill. Grandpa rescued the puppy and Spot carried it off to the barn, but every few days we would hear Spot barking and go out to find that Tom had kidnapped some of her puppies.

Grandpa had about decided to shut the gander up because he bothered Spot so. But one day he was missing and we made up our minds that a fox, hungry for gooseflesh, had taken him.

Francipa began storing the hay in the barn he saw some loose shingles on the barn roof. So he sent Mike to the lumber shed for shingles with which to mend the roof. Mike came back with a broad grin on his face and called out: Mister Severance, an' would ye come with me a moment. I have something to show ye. Sure. an' did ye iver see an old gander makin' a goose of himself, an' if ye niver did just luk there."

Sure enough, there sat Tom in the shed behind some boards on a nest of goose eggs that he had found there. The nest was lined with down he had plucked from his own breast. Tom hissed loudly when grandpa picked him up and, as soon as

and very deliberately sat down again.

created a great deal of amusement for passers-by as long as the goslings were small. People would stop and watch when he thot, "Of all sad words of him, and everyone that it very odd to tongue or pen, the saddest are these: The balm of hope: this fair and holy see a gander mothering a flock of gos- 'It might have been.'" He might have lings.

At the conclusion Bennie, who had listened with deep interest, asked the all. question we were all wondering about--"Did Tom bovver Spot's puppies any tations.

"No, dear; the goslings took up all his time until the puppies were grown too large for him to hover. Here comes grandpa with the milk. Come, have a drink of warm milk and in the morning be satisfied, for those best enjoy abundwhen grandpa feeds the fowls you may all go out and see the gander mother."

WHO IS WHO?

BY CARL S. LOWDEN.

I know some poor, rich men, and I know a host of rich, poor men. You know them, too. whom are very, very wealthy. They have money, stocks and securities, land, and property of every sort. They live in houses which are almost mansions, and ride in red automobiles, and play golf, and banquet extensively. They fish with a seine, tho it is against the law, and hunt out of season. In the summer time they move to their summer homes, or live in exquisite cottages by the shore of the lake. These people, the people of this type, attend the theater two nights in a week, and spend the remaining evenings at club-houses, dance halls, etc. They are hypocrites, they are the froth of the blood of the nation, they are false royalty, they idle and fritter away their petty, peevish lives, and endure an unexistence. Because of these people, socialism has arisen; and its aim is the elimination of this class. You know Hamilton, and Dodd, and Baldwin, now don't you?

Very well. You know the other class much better I presume, for you are one of them. This class comprises the rich, poor men-men who are not wealthy, but who nevertheless are rich. The members of this huge class work every day. They "get out" at four, and "turn in" at eight or nine. They haven't a great array of fancy clothes, or any red automobiles, or any private golf links for that matter. They have no stately, colored liverymen, nor any racing stables. They can't afford diamonds; they have no summer homes, but by necessity must remain in the one house during all the year. The members of this type seldom see the foot-lights, but often gaze upon the pulpit and sincerely listen to the words of the minis-There is no sham and hypocrisy about them. They are "straight from the shoulder." They possess humane mo- It has been said, and whether 'tis false shoulder." They do not fritter away their lives, but they really live. The blood of the nation are they, not the froth. As I

the nation are they, not the from As I said above, you know them intimately, for you are one of them.

It has been said very often that happiness does not consist in wealth. It does not, and people know it does not; yet they not, and people know it does not; yet they are they are the said very often that happiness does not consist in wealth. It does not, and people know it does not; yet they are they are the said very often that happiness does not consist in wealth. It does not consist in wealth are they not the following the said very often that happiness does not consist in wealth. It does not consist in wealth are they name. The sweetest wish, and coming years will experience the said very often that happiness does not consist in wealth. It does not consist in wealth are they name. The sweetest wish, and coming years will experience the said very often that happiness does not consist in wealth. It does not yet they are they name. The sweetest wish, and coming years will experience the said very often that happiness does not consist in wealth. It does not yet they are they name will crown with a marranthine wreath this dear desire, and the said very often that happiness does not consist in wealth. It does not yet they are they name will crown with a marranthine wreath this dear desire, and the said very often that happiness does not consist in wealth. It does not yet they are the said very often that happiness does not consist in wealth. It does not yet they are the said very often that happiness does not consist in wealth. It does not yet they are the said very often that happiness does not consist in wealth. It does not yet they are the said very often that happiness does not consist in wealth. It does not yet they are the said very often that happiness does not consist in wealth. It does not yet they are the said very often that happiness does not consist in wealth are the said very often that happiness does not consist in wealth are the said very often that happiness does not consist in wealth are the sai continue to amass wealth, seemingly with the hope that when they have bags of gold, they have the precious thing that will sustain happiness. But happiness will not be bot, nor can it be nourished by any material thing. It must exist in the soul. Do you'remember King Midas of ancient times? He was very wealthy, but unhappy, so unhappy! Did you ever see a man searching for a thing, looking far and wide, and when he did find it, it was in a pocket of his coat, and virtually "under his nose." Or did you ever see a man hunting for his hat while it That rested on his head? Well, that is the manner in which some persons search The for happiness. They imagine it is very far off and almost unattainable when it is actually following them around. To be poor is to be happy. Across the way Altho it seemed some secret, painful is a rich, old codger, and you think how happy you would be if you had his What a delusion, for you would When wealth. not be happy at all, just miserable like

Who is who? This old codger deceives you, for behind his cloak of wealth is a And cloak of gloom. Here is another man. He is a laboring man. He is whistling. He is dressed in cheap overalls. Behind No bird can charm thus-not the nightthis rippling tune of his is a happy, healthy, tripping heart, and thots of a dear, happy wife. He hasn't wealth, but In measured strains, can trill as fond a he owes no man a penny. He has two

he was released, he walked to the nest strong arms, and nothing to fear. As and very deliberately sat down again. the poor man whistles merrily, the rich, A few days later Tom came up to the old codger sighs and says regretfully, "I house followed by ten little goslings. He wish I were him." Happiness dwells in but one place—the poor man's household. How miserable was the old codger been happy had he been contented to remain poor, and unavaricious. That is

Wait a moment. Here are some quo-The first is from Goldsmith; the second, from Epicurus; the third, from Emerson; the last, from Beecher.

"Can wealth give happiness? gay distress! What splendid misery!"

"When we have only a little we should ance who are contented with the least; simple fare can give a relish equal to the most expensive luxuries."

"The poor are only they who feel poor, and poverty consists in feeling poor; the rich in a true scale would be found very indigent and ragged."

"No man can tell whether he is rich or poor by turning to his ledger. It is Perhaps you know Dodd, or the heart that makes a man rich. He Smith, or Baldwin, or Hamilton, all of is rich according to what he is, not according to what he has."

WHEN BOBBY STUBS HIS TOE.

BY MARY LOWE.

Bobby will go barefoot—
See, then what he gets!
Mamma tries to hinder,
Coaxes, scolds, and frets;
Says she would not do so—
(Bobby hopes the same,
For if his father saw her thus,
Great would be his shame).

Bobby flings off foot-gear, Capers in the sand,
Shouts, and cheers, and halloos,
Fit to beat the band;
Mixes dust and water;
Thru the mud he goes;
Gee-whack! ain't it jolly cool
Squashing 'tween his toes!

Bobby tries a foot-race Bobby tries a foot-race—
Speeds along the street—
Does not see the stone,
Hid by dust, so neat;
Oh! the mortal anguish,
Oh! the pain and woe
That thru his system shoot
When Bobby stubs his toe!

Then comes swift repentance,
In the wake of sin;
Bobby's conscience wakens—
Great the grief within!
Wishes he had heeded
What his mother said,
For he'd not have suffered so,
If shoes he had not shed.

Wishes he had ether, Wisnes ne nad etner, Chloroform, cocaine, Or a little morphine, Just to ease his pain; Vows he'll mind, in future, Save himself much woe; h! how troubled conscience aches, When Bobby stubs his toe!

AN ADAGE OF THE DOVE.

or true
I leave it for the future years to claim,
hat as the Spring's first dove begins

to coo, step thrice backwards and then

swell,
And blossom forth, arrayed in rich attire,
Of which the words of wisdom sweetly
tell.

under skies of pearly morn, my Love, Arisen late from dreams of peace and

Arisen late from dreams of peace and thee,
From wooded heights, the notes of turtle dove
Came like a message from the sky to me!
Thrice stepping back, I breathed upon the air
Of sup-bright morn, in adoration lone.

Of sun-bright morn, in adoration lone, rose-like incense from a hidden

urn,
A sweet and simple prayer,
dearest that my heart hath ever known, t greets me whither in the world I

horn,

All tearful thots I bade at once depart;
I thot alone of bright and cloudless days
That wait such promise fairly to unfold;
And naught I hearkened to, save that refrain

Across the valley haze;

That sings its message to the midnight rose

repose, That dove sang to me! (Other songsters sing

Among the fringing stream, stream, and in the woods how many chant their

Sing on, sweet minister! Thy flood-bound wings
Brot cheering promise to the drifting ark!
Thou hast not left us, and thy presence brings
Sweet hope as then across the waters

Sweet hope as then across the waters dark Now thou dost seem all that is good and

fair Departing with the simple words I breathed, one who holds in fee my nights and

To one who holds in reddays;
In thy returning bear
A crown of peace by her fair fingers wreathed,
On verdant slopes where Flora ever strays!

KINKS.

Kink I.—The Famous Paintings. Give the title of each painting referred to in each stanza, also the name and nationality of the artist of each.

Three words tell this painting's name, The product of a woman's art.

2. 'Twas music's patron saint gave fame To this artist's work of brush and heart.

And eventide devotions gave This painter of peasant life his theme.

While fairies dance in forest grave Has made another French name gleam.

The best-priced dream of Jesus' face Is that portrayed by a German's grace 'Tis a portrait of a countess fair
By an unknown artist on a canvas rare.

Angels of Christmas peel out chimes On a well-known canvas of modern times.

Morning arrives scattering flowers
In advance of Phoebus attended by Hours

The most famous Madonna of a master's skill Remains thru the centuries a wonder still.

Spirited stepping to a famous old tune
By two white-haired fifers and a drummer young
In the van of an army brot renown
To a carriage painter of an Ohio town.

Prizes for Straightening Kinks.

Prizes for Straightening Kinks.

To the sender of each of the ten neatest correct answers to the above Kink, we will give choice of a package of 50 post-cards representing a trip around the world, a copy of "Concrete Construction on the Farm," or a fountain pen. Where contestant or some member of his family is not a regular subscriber a year's subscription (75c) must accompany answers. Answers must not reach us later than Sept. 11, as correct solutions will be published in issue of Sept. 18. Address answers to Puzzle Dept., Michigan Farmer.

Farmer. ANSWERS TO JULY 17 KINKS. Kink I. Drop-Letter Proverbs.—1. Many hands make light work. 2. Do your best and never shirk. Kink II.-Disguised Advertisers.

Kink II.—Disguised Advertisers.

1. Flint Land Company, (Flint, Mich.)

2. State Board of Immigration, (St. Paul, Minn.)

3. The Atlas Portland Cement Co., (New York).

4. The Michigan State Telephone Co., (Detroit).

6. The Harris Mfg. Co., (Salem, O.)

7. The Adams Husker Co., (Marysville, O.)

8. The De-Laval Separator Co., (New York).

9. American Separator Co., (Bainbridge, N. Y.)

10. American Sea Green Slate Co., (Granville, N. Y.)

Kink III.—Word Square.

Kink III.-Word Square.

O C H R E ROR July 17 Prize Winners.

July 17 Prize Winners are: Mrs. C. H. Crabtree, Mrs. Spencer Sutphin, Mrs. Ferman Douglass, Clarence E. Grohe, J. W. Houghton, Mary M. Wood, Mrs. Rae Greek, C. H. Randall, Elsie A. Davis, James M. Burt, W. A. Roberts.

Get This New Wagon Box Booklet.

known,
That greets me whither in the world I turn!

Altho it seemed some secret, painful thorn
Of coming ill was piercing deep my heart,
When that far dove serenely wound its
A postal card will bring a booklet which fully illustrates the quality and materials of Elgin Wagon Boxes and gives prices from \$9.75 upward which save you all jobbers, dealers, and catalog house profits. On every Elgin Box satisfaction or money back is guaranteed. Write for booklet today to the Elgin Wagon Works, Box 111, Elgin, Ill.

The Porter Feed and Litter Carrier relating the attention of our readers for that its great usefulness in carying the feed or litter in the barn. It moves on roller bearing wheels swiveled in such a manner as to easily round a curve. A proper track on which to move the carrier is furnished as is stated in the announcement. Our readers should write this ploneer firm for their descriptive catalogue of carriers, hay tools, etc. The address is J. E. Porter Co., Ottawa, Ill.

As 'neath the skies, from branches of BAD DREAMS Caused by Coffee.

"I have been a coffee drinker, more or less, ever since I can remember, until a few months ago I became more and more nervous and irritable, and finally I could not sleep at night for I was horribly disturbed by dreams of all sorts and a species of distressing nightmare.

"Finally, after hearing the experience of numbers of friends who had quit coffee and were drinking Postum, and learning of the great benefits they had derived, I concluded coffee must be the cause of my trouble, so I got some Postum and had it made strictly according to directions.

"I was astonished at the flavor and taste. It entirely took the place of coffee, and to my very great satisfaction, I began to sleep peacefully and sweetly. My nerves improved, and I wish I could wean every woman and child from the un-

wholesome drug—ordinary coffee.
"People really do not appreciate or realize what a powerful drug it is and what terrible effect it has on the human system. If they did, hardly a pound of it would be sold. I would never think of going back to coffee again. I would almost as soon think of putting my hand in a fire after I had once been burned.

"A young lady friend of mine had stomach trouble for a long time, and could not get well as long as she used coffee. She finally quit coffee and began the use of Postum and is now perfectly well. Yours for health."

Read "The Road to Wellville," in pkgs.

"There's a Reason."

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



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rite today for special offer to agents.

THE LEADER JACK CO.
51 Main Street, Bloomfield, Indi

Learn Telegraphy salary:

Young men and women to fill R, R, and Gov. posions. Thorough instructions. Expenses for course weeks' tuition, board, room, including type-writage specifical granteed graduates. Cats. free. MARION TELEGRAPHIC SCHOOL, Box 15, Marion, Ind.

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THREE DAILY PAPERS

For those who would like to have three daily papers a week, we have arranged with the New York Thrice-a-Week World so that we can offer it with the Michigan Farmer a year for only \$1.40; that is, both papers a year each for that price. Send orders to us or

THE MICHIGAN FARMER, Detroit.

OF INTEREST * TO WOMEN

MY LORD AND I.

BY L. SHOREY.

I have a friend so precious,
So very dear to me,
He loves me with such tender love,
He loves so faithfully.
I could not live apart from him,
I love to feel him nigh,
And so we dwell together,
My Lord and I. nd so we dwell to My Lord and I.

Sometimes I'm faint and weary,
He knows that I am weak,
And as He bids me lean on Him,
His help I gladly seek;
He leads me in the paths of light
Beneath a sunny sky,
And so we walk together,
My Lord and I. And so we walk to My Lord and I.

He knows how much I love him,
He knows I love Him well;
But with what love he loveth me,
My tongue can never tell;
It is an everlasting love,
In ever rich supply,
And so we love each other,
My Lord and I.

He knows how I am longing,
Some weary soul to win,
And so He bids me go and speak
A loving word for Him.
He bids me tell His wondrous love,
And why he came to die,
And so we work together,
My Lord and I.

GOING AWAY TO SCHOOL.

BY E. E. R.

Preparations are now being made in homes all over the land for sending boys and girls away to school. They have passed the eighth grade, and the little school-house which has heretofore been the fount of learning, is to be followed by something more advanced, something broader and farther reaching in its in-

With the young people themselves this of which they know comparatively little, lies just ahead. Much of it will be opened old. to them in the wider field represented by absence from home with new surroundings and in attendance upon the college of their choice. New associations will be formed, new friendships made. Under teachers of liberal education and cutlure an environment will be created which furore was caused among Michigan stock a word of instruction is given. The fate will not be without its influence.

ambitions and aspirations than this which disease among animals. The local and step towards the obtaining of good mothpromises so much to youth, the period state officials immediately got busy with erhood should be to train the elder girls things to come, of great things to be velopment of this disease. Even Uncle ought to accomplished. Years hence a retrospect Sam was concerned, and ordered the riculum. may show success, or it may show federal authorities to help in searching

For the parents, this period immediately preceding the going away from home assumes a different aspect. It is for them animals or with people, ought to be that it may have a fair chance for life. a serious one, clouded of times by doubts prevented. In contrast to this panic Some time we hope to see the state pay and fears. It means breaking of home ties, weakening of home influences, and ease, we beg leave to call attention to lease as much attention as it does to the roots for a new start. absence of the watchful care heretofore the daily death list as found in the De- health of its animals. Why it should be their daily portion. Mother's love will troit daily papers, for one day. From so deeply concerned over cholera in a follow, but it cannot shield, as in the this list we extract the following notices hog and so deplorably indifferent to Father's protection, all powerful of deaths: during childhood, has its limitations when that period is outgrown. So in leaving home for college practically a new life unfolds, a life evolved from the old, yet in many ways so different from it that it would be difficult to discover a kinship between the two.

in the minds of the young, that superior and dozens of similar cases every day. advantages are offered elsewhere, and advantages are onered eisewhere, and that better compensation and less labor where we say very boastfully that "Life of the very few agricultural journals dow open, and you will awake feeling are required to gain a livelihood in the is worth living," are catalogued the in the country which has considered the fresh and well rested.—M. A. P. conditions will continue.

thus attracted, and who manifest a belief day after day this list is added to, of department pamphlets for the instruction eggs, half teaspoon salt, butter size of a in the soil, is found in the lives of those who do return to it, and it is truly gratifying to find the numbers of these increasing from year to year.

Probably one of the first things considered by the parents in selecting a school is its moral environment. The finest education in the world counts for nothing if gained at the sacrifice of those qualifications which are essential to the truest type of manhood and womanhod. Fathers and mothers are loath to trust what is dearer to them than all else, where temptations heretofore unknown beset, home is left behind. That disastrous redeparture, since these are bound to come in one city, fails to excite the interest of for making chow chow.

anyway. No life can be so shielded as to avoid them, nor would we have it otherwise, since strength of character is gained only by trial. Just as the parent bird cause. The state of Michigan is the sends forth its young, thrusting them out people of Michigan. The babies are the of the nest if necessary, so must the babies of the people. In its last analysis human parent do. Strong bodies come this daily death list represents largely a only from exercise of the muscles, and problem in motherhood. It looks to me strong lives are not wrought out by being as the this problem was of sufficient impampered and petted but by exercise of portance or even the statesmen to ponis needed. Of course, there should be this death rate. It ought surely to be of strength proportionate to meet it. But some interest to the mothers of Michiit is bound to some.

sort of education shall they have?

its highest ambition, were it in my power. measures for improvement. I believe there are better fields of actiof the next generation.

women for home-makers, whatever else tated condition of the baby, and a low they may undertake is quite possibly a rate of resistive force which leaves it a mere incident in their lives. The teacher, prey to the first adverse condition that it forsake their calling when love steps into year or second year from bowel or stomthe arena, and all other ambitions fall ach trouble, or starvation, under whatbefore the master passion. From the ever term used, it is usually due to the to eatch the waste water and allow it to beginning this has been woman's mis- method of feeding it. It isn't a question stand in the sun, in order to become sion, to love, to marry, to rear sons and of surrounding conditions but of ignordaughters, and so it will continue, despite ance, that has to be dealt with. all attempts to supercede these with anything else.

out for the future of the American girl ment into three parts, measures directed let not the housewifely arts and graces toward the mother, measures directed be overlooked. Whatever else her edu- toward the child, and measures requiring cation may include let prominence be special legal powers. First, there should With the young people themselves this given the learning to sew, to cook, and be the education of elder girls in the period is one fraught with a multitude to keep house, as she will no doubt apply care of infants. There is lack everyof joyous anticipations. The great world to keep house, as she will no doubt apply care of infants. it practically before she is thirty years where of instruction in infant hygiene

SOME QUESTIONS IN HEALTH VALUES.

BY CHARLOTTE A. AIKENS.

raisers and buyers on account of the ex- of the new generation depends upon un-No period of life is more productive of istence of several cases of foot-and-mouth reasoning chance or impulse. The first development, of roseate dreams of measures for preventing the further de- in the elements of infant hygiene, which velopment of this disease. Even Uncle ought to be a part of the school curout the causes and checking the loss of portant consideration during the baby's should be, preventable diseases among in how to feed herself and her baby so

Until some compelling demonstra- names and ages of 17 babies and children, health of the farmer and his family of to the contrary is shown, present practically all of whom have died from sufficient importance to devote a portion That there are young men who are not that this is one day's death list, and that matters. Has the city or state health that we have noticed. The daily papers and provide them for free distribution. haven't even suggested that anybody was especially concerning themselves over Grange meetings in which the question this "slaughter of the innocents," that is of mothers could be answered. going quietly on in our midst. Why

> There was a fearful fuss made just a the stock. day or two ago over the discovery of one case of small-pox in Benton Harbor,

the state or anybody in particular, outside of the stricken households. Why is it that this indifference to these conditions exist? They are not confined to It is the old Detroit by any means. story, centuries old-"My people doth not consider." "The people perish from lack of knowledge." They perished in the days of the prophets for lack of knowledge, and they perish still from the same every faculty and for this, temptation der over, and devise means for reducing gan, and tho the farmer's children are And what of our young women? What much less likely to be cut off in the first year or two from preventable diseases That depends largely upon what their than the city children, the farm women sphere of usefulness is to comprise. 1 of Michigan ought to be concerned about

When babies die in the early weeks of vity for those who are to be the mothers life the cause is very often due to a time comes to plant the dahlias out f the next generation. weak run-down or diseased condition doors, they can be lifted out with the First of all, I would educate young of the mother, which leads to a debili- soil in which they have been growing stenographer promptly confronts. When a baby dies in the first and it will be convenient if they are

A recent writer in discussing this ques-So whatever may be the course mapped dividing the probable means of improveand young mothers have to figure out for themselves, and get slowly from experience what ought to be given to them as a most important part of their educa-Children must be reared whose tion. whole future depends on the intelligence A few months ago in Michigan quite a or ignorance of the mothers, to whom not

Proper food for the mother is an imcholera in an infant is a question too deep for the average mind to answer satisfactorily. We would especially commend the question of the saving of the sav cholera in an infant is a question too smaller daily death list from the diseases Here in one day in the city of Detroit mentioned. The Michigan Farmer is one

A Question-Box could be arranged for

We shall have reached an altogether should we bother about 17 babies and higher step in civilization when we show children dying in one day? Why should that we are willing to put forth as much the state authorities waste time on such organized effort to save the babies, as useless and valueless things as babies? was put forth a few months ago to save

yet that is exactly what happens when and the papers suggest that the state Mich., requests that some of the readers troops may be called out to assist in of the Household Department, of the nome is left beining. That dance of corn starch. Sift the sults sometimes follow cannot be given checking it, but the deaths of 50 babies Michigan Farmer, send in a recipe for mixture thoroly to incorporate the comsuits sometimes follow denying the or more from cholera-infantum in a week the canning of succotash and also one pound. It is then ready for use, and as a legitimate excuse for denying the or more from cholera-infantum in a week the canning of succotash and also one pound. It is then ready for use, and

SUCCESS WITH DAHLIAS.

BY MARGARET WHITNEY.

Tho dahlias are very pretty flowers many persons object to growing them because they bloom so late in the fall that few of the blossoms open before the early frosts. The bushes are generally full of buds, ready to open, when the first frost comes.

One lady who liked these flowers very much, and who never succeeded in getting very many before frost arrived, has solved the problem quite satisfactorily and as a result has an abundance flowers thru August, September and the first of October.

Early in the spring she looks over her bulbs and sets the good firm ones in large flower pots and keeps them warm and moist, so they will sprout. On nice days these pots are placed on a sunny porch to allow the plants to become accustomed to the outdoor air. At night they are carried into the house again. As the weather gets warmer they would stop the popular tendency which the slaughter of the Michigan babies, and left out all the time. By doing this leads to typewriting and stenography as ought to make their influence felt in they need not be put in the yard until there is no danger of frost, but may be When the kept growing in the pots. and set into the ground. In this way the growth will not be stopped.

Dahlias require a great deal of water planted as close to the well or cistern as possible. Place a large jar by the pump slightly warmer. Use this to water the dahlias with in the evening.

One year only two roots sprouted when tion says: "The English authorities are set in the ground in the spring, but these gave splendid results. When put in the yard the sprouts were five or six inches tall, and the bulbs had good roots. They grew all summer and were more than five feet high. They commenced blooming in July and continued to bloom until frost. At times, the largest plant had twenty-five good-sized flowers on at one time besides the smaller ones on the side branches. The flowers were not allowed to die on the stalk but were cut off as soon as fully open. In this way the strength of the plant was not wasted in ripening the flowers, and new ones were continually being produced.

It is not necessary to have a great quantity of bulbs to have plenty of flowers. If the bulbs are properly cared for, one good bulb each of red, white and yellow varieties will furnish an abundance of flowers all thru the latter part of summer.

When these plants are killed by the frost in the autumn the tops are cut off and the bulbs dug and carefully dried in the sun. As soon as they are thoroly these valuable animals. This is as it first year. other should have instruction dry they are wrapped up in a paper and put away until the next spring. The bulbs multiply so rapidly that even if some should rot before planting time one over a few cases of foot-and-mouth dis- a little more attention to its babies, at can be reasonably sure of enough good

VALUABLE HINTS.

A dish of charcoal placed in the pantry will keep articles of food sweet and wholesome almost as well as ice.

When a cut will not heal, saturate a piece of absorbent cotton with coal oil and bind it on the wound. It will then heal as if by magic.

To remove mildew from muslin and their mind. If the women in the Granges linen dissolve a teaspoon of chloride of homes to enter college, the proportion who ultimately return to it is comparatively small. There seems to be an idea in the minds of the words.

fantum."

Mary B, aged 6 months; entero colitis, which is another name for inflammation of Michigan take up the matter in earline in a quart of water, put in a kettle and let boil, then put in the ligislators and state officials on this question we shall before long are the words. else the lime will rot the fabric.

Always sleep with your bedroom win-

Dutch Currant Bread .- One pound of preventable diseases. Please remember of its space each month to family health flour, three-quarters pound of currants, four ounces of candied lemon peel, two until very light, add the flour and very slowly the milk-make a light batter. Add currants and chopped candied lemon peei, the melted butter and the yeast. Let it raise one hour. Bake this bread in a bread tin, buttered and lightly sprinkled with flour, one hour, in a mod-

> A reader of the paper sends in a tried recipe for making pure baking powder, which she says she has had excellent A young housekeeper from Portland, results with: Take eight ounces of pure cream of tartar, four ounces of soda, four ounces of corn starch. Sift the costs about sixteen cents a pound,

BY A FARMER'S WIFE.

and my constant dread had been thresh. The melon took the place of pie. ers. Cooking for them was a new experience to me, and as I was just from the city, my husband was very anxious that my meals should compare favorably with tired of them. the neighbors. He tried to find someone to help me but failed. I had always to help me but failed. I had always and I was again resting on the couch, about ten days. Remove the scum care-heard of the ravenous appetites the men I thot, it hasn't been half as terrible as fully, and pour into a clean jar. Let it were expected to have, and when I thot I have anticipated. Why not write it stand twenty-four hours, and again pour how all the strong neighbor women were to have help-daughters or relatives, for the occasion, and I, who was just getting up from a siege of sickness, had to get along alone, I sat down and cried. Then I went to work, made out bills of fare for the two meals I was expecting to have them, and planned to make the work time I baked a crock of cookies, and pickled some beets one day.

The day before the event we bot four saries. pounds of pot roast, one pound salt pork, two pounds bologna or spiced ham, cheese and a 25 cent water melon. That day I many cases the ignorance of the very baked three loaves of bread and two tins of biscuits, three apple pies and two basins of beans.

to arrange to do all the baking one day, and the stewing another. It was easier, I also steamed apples the day before. My husband fancied them greatly and said they would be something different from anything the neighbors had. After cutting out cores, I placed them in a stew pan in about an inch of cold water. I filled the hollow centers with sugar and sprinkled cinnamon over each. They quickly boil soft. After lifting them out I boiled the liquid down. To make it fancy I colored it with a little red sugar sand and thickened it a trifle with corn starch, then poured it in and around the apples.

Next morning I put my beef on as soon as breakfast work was over, chopped one large head of cabbage ready for slaw, and scraped about half a peck of potatoes and poured water over them. I then filled a salt bag with coffee, putting in one level spoonful for each man, and put it to soak in a coffee pot of cold water. My husband had said men were so fond of dumplings and it would be something the rest had not had. But he was afraid it would make me too much trouble. As my dumplings are my pride, I concluded to mix some flour ready and use it if I had time. Accordingly I took four cups flour, four rounding teaspoons of baking powder and one of salt, and sifted them into my mixing bowl, placing a cup of sweet milk beside it. I then mixed a bowl of thickening for gravy. I was now free to set the table. My husband had put in extra leaves for me. I had plenty of time so I put on a bouquet of nasturtions, which brightened the table so much. 1 set the chairs in their places, then lay down on the couch to rest for fifteen minutes, and plan at what hour to put things to cooking.

At ten o'clock I put the two dishes of beans, one above the other, in a steamer chopped cabbage to cook in boiling water, salted. When tender, I drained the water off and set the cabbage aside to be repeated shortly before noon, with salt, pepper and cream added. I kept a kettle of water hot and at a quarter after eleven took the meat out into a buttered skillet and finished it by roasting it over a slow fire. Took out some stock in another

Tomato Aspic Salad.—Take the pulp To every cupful of strained juice allow kettle for gravy, and put potatoes to and juice of a large can of tomatoes, one scant cup of sugar. Boil the juice cut bread, put butter, pickles, and so and pepper. Stiffen with gelatine, using heated glasses and when cold cover careforth, on the table, make the coffee, about a half package to a quart. Mould fully. gravy, etc.

At my request my husband notified me French dressing. 15 minutes before they would be ready for dinner. I immediately stirred the cup of milk into ped them into the beef stock on top of the potatoes.

ranged on the tray, with coffee. My husband came in in time to put them around while I dished up the dumplings, which were now ready, and the other things. He looked after the passing at the table and I had nothing to do but get the pie ready to serve.

The dumplings and steamed apples took the men by storm. My husband lingered after the rest had gone, to say, "It was and tartaric acid are thoroly dissolved, the air. This makes a rich and delicious the best meal we have had yet." That then strain, and bottle. Let stand ten preserve and will keep almost indefiwas, of course, wonderfully soothing to days before using.

WHEN I COOKED FOR THRESHERS. my tired nerves and helped me to do

up the work with a light heart.

I have half a notion to have macaron bottle, and put in a cool place. and cheese next year, in place of beans, to use in ten days. as they have them every place and get

When the work was at last finished

up, perhaps it will help some other inexperienced one, and keep them from dreading threshing time, the way I did.

SEASONABLE SALADS.

BY E. J. LYNCH.

A salad is suitable to be served to all fill up with ice water. as easy as possible. Several days ahead kinds of people on all sorts of occasions. I made a cheap fruit cake. At the same For the simple home dinner, or supper, the evening lunch to chance guests, or the more elaborate dinners and anniver-

One reason why many persons who eat salad for the first time dislike it is, in first principle of good salad making. Two things always to be remembered, have all the ingredients thoroly cold and mix As I only had a gasoline stove, I had them the last minute before serving. A salad in which the ingredients are mixed long in advance of serving, is pretty sure to be a failure.

All vegetables used in salads must be needed. Serve with pounded ice. in first class condition. Lettuce must be crisp and fresh, celery white and tender, keep both of these vegetables in cold or iced water till serving time. Onions vegetables that should be chopped fine, others are cut in uniform pieces and kept in a cold place till needed for mix-Toss together lightly with a fork syrup, and serve with pounded ice. instead of stirring with a spoon.

Most people in the country prefer the French dresing for salads,-rather than the mayonnaise, which requires olive oil. The following recipe for French dressing is good and the mixture will keep three four weeks, or longer, in a cool place. or

French Dressing.—One cup vinegar, two cups water, half cup sugar, one tablespoon each of flour and mustard, one egg or two yolks. Mix the dry ingredients and add sufficient water to blend smoothly. Put the vinegar and water in a double cooker and let it come to a boil, add slowly the flour, sugar and mustard. Cook till it is thick. Remove from the fire and stir in slowly the well beaten egg or yolks. Add sweet cream to thin it, when it is used, if it is too

Waldorf Salad .- Use tart apples, peel and hashed, chopped celery and walnuts, or peanuts, mix together. Serve on lettuce with French dresing. This is an excellent fruit salad.

Cauliflower and Beet Salad .- Separate the cauliflower into rather small pieces, cook in salted water. Drain and let cool. Cut cold boiled beets into pieces the size of dice, mix and add French dresing. Serve on lettuce leaves. The combination of colors makes a very attractive dish

over the beef. A little later I put the of nuts, cut fine, and two stalks of celery, serve on lettuce leaves with French dressing.

> Baked Bean Salad .- Prepare beans for baking as usual and add sufficient tothe beans are thoroly cold.

While they were cooking I had time to ten minutes, and add the onion juice, salt and boil ten minutes longer. in small cups or glasses. Serve with

DELICIOUS BEVERAGES.

BY MARY FOSTER SNIDER.

ones may be made by the following glasses. recipes:

pounds of sugar, three ounces of tartaric on the jelly, then put on the tin covers, acid, one ounce each of cream of tartar, or paper that has been alphed in white flour, and essence of sarsaparilla, and of egg. If the latter is used press it three quarts of water. Stir until the sugar tightly down around the glass to exclude

Raisin Mead.—Mix together two pounds Remedies of seeded and chopped raisins, one pound There were so many cooked beans left of white sugar, two gallons of boiling BY A FARMER'S WIFE. we had them cold for supper, with noth- water, and one-fourth pound of tartaric Four months we had been on the farm ing hot but tea and creamed potatoes. acid. Stir thoroly, pour into a stone jar, stir twice daily for a week, then strain,

> Mulberry Shrub.—Squeeze the juice from mulberies, and let it stand in a warm place until fermentation ceases it off. Measure, and to thirteen ounces of the juice allow one pound of loaf sugar. Put the sugar and juice over the fire, and bring slowly to a boil, let boil a minute or two, then strain it thru a jelly bag, bottle, and seal. To serve, half-fill a tumbler with the shrub and

> Pineapple Lemonade.—Peel, eye, and grate a large, ripe pineapple. Add the strained juice of four lemons and a syrup made by boiling one pound of sugar and one pint of water together for five minutes. When cold add one quart of cold water.

> Orange Sherbet .- Free the pulp of six large oranges from the inner membranes and white skin. Add six large tablespoons of granulated sugar and the juice on one lemon. Stir until the sugar is dissolved, then add one-half cup of pineapple cut in dice, and set on ice until

Banana Punch.-Press the pulp of three ripe bananas thru, a wire sieve, add the juice of one lemon and one orange, and the grated rind of half a lemon and parsley are the only salad Pour over this half a pint of boiling water, and put in a cold place for several When quite cold, stir thoroly, hours. sweeten to taste, add a cup of strawberry

> Agraz.-Take green grapes just beginnnig to turn, and pound them in a stone jar. When well crushed add sugar to make rather sweet and let stand three or four hours. Strain off the juice and allow two parts of water to one of grape juice. Serve with pounded ice, or it is delicious when frozen to a soft mush. This is a favorite Spanish drink.

> One of the safest and most refreshing drinks is peppermint water. This is not only very palatable but is also a great aid to digestion. To make it drop a little pure essence of peppermint on to a lump of sugar, put in a tumbler, and fill with boiling water. This is good either hot or cold.

PREPARING FALL FRUITS.

Pickled Peaches.-It is not necessary to peel peaches for pickling altho some cooks prefer to do so. Rub the down off the skins with a coarse towel and stick three cloves into each peach. To seven pounds of fine peaches allow one quart of best vinegar and four pounds of sugar. Cook the sugar and vinegar together to a syrup, skim well as it boils, put in the peaches, and let them simmer until tender enough to be easily pierced by a straw, then take them out and put Banana Salad.—Six bananas, half a cup them in a jar. Pour over the boiling hot syrup and seal at once. Hard yellow peaches are best for this r cipe.

Blackberry Jelly.-Wild make the most delicious jelly and the housekeeper is fortunate who can procure mato sauce to make them thoroly moist, them. Mash the berries and heat them when cooked. Add celery, chopped fine, slowly in a preserving kettle to extract and cover with French dressing when the juice. Then press them thru cheesecloth and let drip thru a flannel jelly bag. one scant cup of sugar. Boil the juice cooking in kettle the meat had been in. boil a small onion in a little water for for fifteen minutes, then add the sugar Turn into

Gingered Pears .- To eight pounds of whole pears allow six pounds of granulated sugar, three lemons, and two ounces of green ginger root. Peel the pears and cut them into dice, shave off Peel the the thin yellow rind of the lemons, dis-Cooling drinks are a necesity during card the white skin and pith, and cut the I dished cabbage up in individual the sultry summer weather, and when lemons into dice. Wash and scrape the dishes and filled the cups already ar- convenient it is desirable to keep one or ginger root and cut it in small bits. Put two favorite varieties made up, ready for all together and let simmer for three all emergencies. Some very pleasing hours, then pour at once into heated jelly When cold, cut writing paper to fit the top of each glass, dip it in Sarsaparilla Mead.-Mix together three vinegar or brandy and place it directly nitely.-M. F. S.

Are Needed



Were we perfect, which we are not, medicines would not often be needed. But since our systems have become weakened, impaired and broken down thru indiscretions which have gone on from the early ages, thru countless generations, remedies ARE needed to aid Nature in correcting our inherited and otherwise acquired weakness. To reach the seat of stomach weakness and consequent digestive troubles, there is nothing so good as Dr. Pierce's Golden Medical Discovery, a glyceric compound, extracted from native medicinal roots—sold for over forty years with great satisfaction to all users. For Weak Stomachs, Biliousness, Liver Complaint, Pain in the Stomach after eating, Heartburn, Bad Breath, Belching of food, Chronic Diarrhea and other intestinal Derangements, the "Discovery" is a time-proven and most efficient remedy.

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ing it for over 20 years. Do not buy until you see our new Illustrated Catalogue No. 14. Send for it now. It is FREE. Austin Manufacturing Co., Chicago

CROP AND MARKET NOTES.

Isabella and Southern Clare Co.'s, July 29.—Very dry, and corn, beans and potatoes are suffering badly, with a poor show for these crops. A fine crop of hay has been stored away. Wheat nearly harvested and hardly up to the average. Oat harvest begun. Owing to the dry weather the crop will be light. Fat hogs scarce; fat lambs bringing good prices.

Calhoun Co., Aug. 13.—The weather is certainly freakish. Here it is very dry, requiring a plow point about every halfday. A few miles north there have been rains to soak below the furrow. Corn here is beginning to roll during the heat of the day, but still looks well. Late potatoes need rain badly. Early ones are a fair crop. Wheat is turning out very well, oats fair. Former is being sold as fast as threshed at \$97c to \$1; oats meet with slow sale at 30 cents. Corn in good demand but little for sale. There are very few apples in this vicinity, and these not of good quality. Peaches are a full crop where trees are healthy. Blackberries are drying up. Plowing for wheat is in progress, and a large acreage will be sown.

very few pieces are healthy. Blackberries are drying up. Plowing for wheat is in progress, and a large acreage will be sown.

Lapeer Co., Aug. 16.—Only light showers over most of this county since early in June, until, at this writing, 9:00 o'clock a. m., Monday, the 16th, a smart rain promises to help late potatoes and beans. Early potatoes are small. Corn, where well cultivated, holds good, altho it will average a light crop. New seeding was drying and looks bad but may now come. Wheat and rye all harvested and much threshed, yielding good. Market on all grain lower. Wheat, \$1; rye, 64c; oats, 35c; barley, \$1.30 cwt.; hogs, \$7.55; lambs, \$6@7; cream, 26c; dairy butter, 20c; corn, 80c; beans, \$2; eggs, 21c.

Lapeer Co., Aug. 16.—The best rain for weeks on hand today. Corn, pastures, new seeding, etc., may be redeemed. Corn about two weeks late in advancement. Last year the writer was cutting corn Sept. 3, with quite a good crop for the season. Farmers are now nearly thru with their oat harvest, a late harvest this year. Baling hay going on lively and moving toward the city for shipment? The prices of wheat and oats are on the climb, rye prices lower. Hogs and cattle in active demand at booming prices. Laborers more plentiful since haying and harvesting was completed. Early potatoes very scarce; many farmers as well as city folks are obliged to buy new potatoes. Haven't known such a condition for years as the farmer being obliged to buy his potatoes; the long drouth the cause. A poor supply of fruit where orchards have been neglected and not sprayed. The second crop of June clover is coming on finely. Not much preparation for wheat is noticed as yet, ground being too dry, but the talk indicates that a large acrease will be pub into wheat this fall. Glad to notice success with wheat arain. Rent Co., Aug. 16.—Corn and potatoes need rain, a good, moderate day's rain, to go down to the roots of things, so if we, get such a rain right away it will save both corn and potatoes promise the largest crop in years. Wheat

beans, \$1.5 70c; hogs, butter, 22c.

M. A. C. EXCURSIONS.

M. A. C. EXCURSIONS.

During the coming week the annual farmers' excursions to M. A. C. will be run from all parts of the state, the schedules for the different railroads being as follows:

Grand Trunk R. R., Aug. 23.—Port Huron, Imlay City, Flint, Durand to College. Detroit, Pontiac, Fenton to College. Owosso, Corunna, to College. Edwardsburg, Schoolcraft, Battle Creek, Olivet, Charlotte, to College. Bay City, Saginaw, Montrose, Flushing, to College. P. M. R. R., Aug. 24.—Grand Blanc, Clyde, Northville, Plymouth, to College. Plymouth, Howell, Williamston, to College. Big Rapids, Edmore, Stanton, Ionia, Portland, to College.

Lake Shore R. R., Aug. 25.—Blissfield, Adrian, Hillsdale, Albion, to College. M. C. R. R., Aug. 26.—Ypsilanti, Arn Arbor, Jackson, to College. Three Rivers, Burlington, Jackson, to College. West Branch, Pinconning, Bay City, to College. Bay City, Saginaw, St. Charles, Chesaning, Owosso, to College.

Ann Arbor R. R., Aug. 26.—Cadillac and intermediate points to Owosso, to College.
P. M. R. R., Aug. 27.—Fremont, White

Ann Arbor R. R., Aug. 26.—Cadillac and intermediate points to Owosso, to College.

P. M. R. R., Aug. 27.—Fremont, White Cloud, Newaygo, Sparta, Grand Rapids, to College. Grand Rapids, Alto, Lake Odessa, Grand Ledge, to College. A train will also be run from Freeport to Elmdale. St. Joseph, Hartford, Bangor, Fennville, to College. Allegan, Hamilton, to Holland, to College. Holland, Vriesland, Grandville, to College.

Trains will stop at all intermediate stations along the various lines, All trains run direct to College grounds. During this week the laboratories and shops will be open for insepction, uniformed guides.

be open for insepction, uniformed guides will show visitors about the grounds, and conveyances will be furnished free for those who wish to visit the farm, orchards and experimental plats.

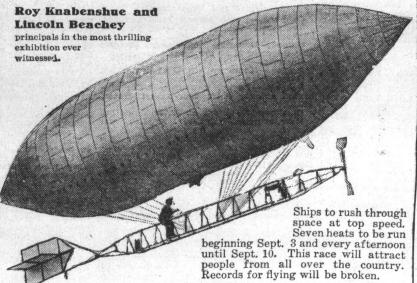
STATE FAIR Detroit, Sept. 2 1

Representing wealth from every section of one of the greatest commonwealths in the Union. Thousands of dollars are being spent to make this event the great shall be the second of the whole state has been searched for exhibits while the amusement features have been gathered from every part of the United States. Nature has yielded bountifully forfarmers during the present season. The y mow have the money and will allow nothing to interfere in making this exposition a tremendous success.

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TURE Fruits and kindred products will be displayed in great profusion. The Fair will show how bountiful nature has been to Michigan during the present season.

BIG HORSE

SHOW similar to the great Chicago horse show every n ight commencing September 4th in front of the grand stand. A new and beautiful feature.

A DOZEN

FREE ACTS

in front of the grand stand on a platform and in double circus rings every after-noon and evening commencing Sep-tember 4th. Biggest and best ever seen in Michigan.

2 Big Bands 2

The Navassar Ladies' and Kopps Cincinnati bands are engaged to play during the fair. They are two of the final transfer are tw est organizations of the kind in the country.



GENERAL HORSE RACES September 6 to 10 - Thousands of dollars in prizes are offered and owners of fast horses from all over the country have made their entries.

Sacred Concert Sunday

Navassar Ladies' and Kopps Cincinnati Bands will

give a Sacred Concert in the State Fair Grand Stand

Visit the Michigan State Fair during

your vacation—it will revive and give

you something to think about-come

Sunday, September 5th., afternoon and evening.

CHILDREN'S DAY -FREE-A special program has been arranged for September 7th, consisting of games and contests at which prizes will be offered. Children under 12 admitted free Sept. 7. TWO EMINENT SOLOISTS Wilmine Hammann and Bert Morbeat the band," will be heard during the fair.

\$35,000 IN PRIZES

DAN PATCH and MINOR HEIR The two fastest harness in a race to beat their time and world's records Thursday, September 9th. No such important event was ever before offered the American people.

BIG FIREWORKS DISPLAY Gregory Fireworks Co., Chicago, will produce this display, beginning Saturday evening, September 4, and continue for five nights, Everything is new and imported for the occasion. REDUCED RAILROAD RATES Every railroad entering De-

Big Midway

Attractions will be better than ever. All new shows, clean and exciting. Best ever congregated. Midway shows do not open until Saturday, September 4th.

Don't fail to see the Brazilian exhibit



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CASH for property, any kind, anywhere. If you want to buy, sell or exchange, address Northwestern Business Agency, Minneapolis, Minn.

320-Acre Gov. Homesteads, Write U. S. Commissioner, Des Moines, New Mexico. 75 ACRES—high state cultivation. 8 a. maple timber, large spring, good buildings and neighbors. Terms easy. Wheat land, Hillsdale Co. J. F. DOUGLASS, R. 30, Pittsford, Mich

PARMS FOR SALE—On the eastern shore of Maryland; climate mild and healtful; soil productive; good water; fish and oysters. Write C. S. DAY, Pocomoke City, Maryland.

BEST TEXAS LANDS—Both irrigated and rain belt, \$5 to \$34. Long time, easy payments. Also Mich. Farmwerte, D. BILLINGHURST, Albion, Mich.

TEXAS ORANGE GROVES easily obtained Co-operative plan. Company does work, gives share crops, enor mous profits, permanen income, life insurance. May we send details at once? Stirling Improvement Co., Inc., Duluth, Minn.

WHY PAY RENT the Best Land in Michigan at from 18 to \$10 an acre near Saginaw and Bay City. Write for map and particulars. Clear title and easy terms. STAFFELD BROS., (owners) 15 Merrill bldg., Saginaw, W. S., Mich.

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DETROIT WHOLESALE MARKETS.

Grain and Seeds.

August 18, 1909.

Wheat.—Wheat prices are again advanced. The receipts of winter wheat which have fallen off, with a continued heavy demand from consumers (chief among which are the country millers who have sold short of flour and are now trying to replenish their supply), has worked the change. Europe has not supported the market as she did during the early summer months, the reason being that a good Russian crop promises aid to the bears. But the decline at Liverpool on Tuesday was offset by unsettled weather in the spring wheat belt. For a few weeks to come the price making news will largely originate in the spring wheat section. Threshing will soon begin and farmers will bear the market or bull it by selling or holding the crop. The crop there is promising, both as to quantity and grade. One year ago the price for No. 2 red was 94c. Visible supply only increased a few thousand bushels. Quotations are as follows:

No. 2 No. 1 No. 3

Red. White. Red. Sept. Dec. Thurs. 1.06 1.06 1.03 1.06 1.05

Fri. 1.07 1.07 1.04 1.07 1.06

Sat. 1.073 1.073 1.043 1.073 1.0634

Mon. 1.073 1.073 1.044 1.073 1.0634

Wed. 1.09 1.09 1.06 1.09 1.0542

Corn.—The improvement of corn prices has been in harmony with the gains in

Wed.1.09 1.09 1.06 1.09 1.05½

Corn.—The improvement of corn prices has been in harmony with the gains in wheat. One influenced the other, but the drouth reported in Kansas and Nebraska aided in pushing corn up a fraction. The market has been active and the demand good. Recent rains have come to the assistance of the crop in the eastern and northern part of the corn belt and now the outlook is quite promising, altho many fields are backward and uneven. One year ago we were paying 74½c for No. 3 corn. Quotations for the week are:

No. 3 Yellow.

													Zellow.
Thursday												71	721/2
												711/2	73
Saturday												72	73 1/2
Monday												721/2	74
Tuesday				 			٠.	 		٠.		711/4	723/4
Wednesda	a	У										713/4	73 3/4
0-4-	773	1						4	w		-		25

Oats.—The prices beginning with Monday are on the basis of new oats. Values are about the same as at the close a week ago. The new crop is not grading up to the average and but very few bushels will go in No. 2. The grain is heavy but the kernels are off in color. The market is steady. Demand is fair. Visible supply decreased a third of a million bushels. One year ago the price for No. 3 oats was 48½c per bushel. Quotations are as follows:

No. 3 White. Sept.

N	o. 3 White. Sept.
Thursday	52 381/2
Friday	52 3834
Saturday	55 39
Monday	
Tuesday	
Wednesday	41 40
Beans.—This market practically nothing is b	

traders. Prices are marked on the same basis as for the close a week ago. The growing crop is doing well in most sec-tions. Quotations for the week are

tions. Wt	10	r	a	U,	LO	11	2		T	U,	T	L	T	C				-	
															C	Cash.		Oct.	
Thursday																\$2.20		\$2.00	
Friday												 				2.20		2.00	
Saturday												 				2.20		2.00	
Monday																2.20		2.00	
Tuesday													!			2.20		2.00	
Wednesda	V							3				8				2.20		2.00	
Claviano	-	4			'n	71	h				a		-	3		4.00	loves	15000	

Cloverseed.—The advance in cloverseed prices of the preceding week did not hold and small declines are noted in the quotations for the past few days. Crop conditions are only fair—it being generally understood that the yield will be short. Prices for the week are:

Oct.	M	arch.
Thursday\$7.50		\$7.60
Friday 7.50		7.55
Saturday 7.50		7.55
Monday 7.50		7.55
Tuesday 7.40		7.45
Wednesday 7.40		7.50
Due Thorn in little activity	2	17010

Rye.—There is little activity in this deal and the promise of a good crop has influenced lower quotations. Cash No. 1 is selling at 70c per bu., which is 2c below last week's price.

Visible Supply of Grain.

	FI	οı	ır	,	F	e	e	ı,	F	9	r	٥,	/is	io	ns,	,	Εt	c.		
Barley		٠.	٠,		٠.								. 2	20	5,0	0	0	18	38,000	0
Rye .																			24,00	
Oats .																			3,00	
Corn			٠.										2,1	12	4,0	0			66,00	
Wheat		٠.											8,5	28	3,0	0			5,00	
																		st v	veek	

Flour.—Market active, with prices unnanged. Quotations are as follows: follows:

Hay and Straw.—Clover and timothy are lower, as is also straw. Carlot prices on track are: No. 1 timothy, new, \$13@14; No. 2 timothy, \$12@13; clover, mixed, \$11@12; rye straw, \$7; wheat and oat straw, \$6 per ton.

Feed.—Prices are unchanged. Bran, \$27 per ton; coarse middlings, \$28; fine middlings, \$30; cracked corn, \$31; coarse corn meal, \$30; corn and oat chop, \$28 per ton.

coarse corn meal, \$30; corn and oat chop, \$28 per ton.

Potatoes.—The better grade of tubers 4s steady at last week's prices, new goods being quoted at \$2.25@2.50 per bbl.

Provisions.—Family pork, \$21.50@22.50; mess pork, \$21; light short clear, \$21; heavy short clear, \$22; pure lard, 12½c; bacon, 15@16c; shoulders, 10½c; smoked hams, 13¾c; picnic hams, 10½c.

Dairy and Poultry Products.

Butter.—A good demand here as well as at outside points following a shrinkage in the offerings of butter has not only firmed the trade but advanced values the past week. The advance is a half cent per lb. for creameries. Quotations are: Extra creameries, 26½c; firsts, 25½c, dairy, 20c; packing stock, 19c per lb.

Eggs.—The quotation of a week ago has lost the fraction and the market is now firm at the decline. Receipts are fairly liberal for the season and the demand continues fair. Fresh firsts, case count, cases included, are quoted at 22c per doz.

Poultry.—Supplies are liberal. Trade

count, cases included, are liberal. Trade per doz.

Poultry.—Supplies are liberal. Broilers is steady with a fair demand. Broilers are lower with other kinds steady at last week's figures. Quotations are: Hens, 13@13½c; roosters, 9@10c; ducks, 10@15c; geese, 8@9c; turkeys, 16@17c; broilers, 16@17c.

Cheese.—Higher. Michigan full cream, 15@16c; York state, 16½c; limburger, 16½c; schweitzer, 20c; brick cream, 16½c per lb.

Calves.—Choice to fancy, 10@11c; ordinary, 9@10c per lb.

Fruits and Vegetables.

Cabbage.—Home grown, \$1.25 per Tomatoes.—Selling at \$60@65c bushel.

bushel.

Onions.—Domestic offerings, \$2 per bbl; Spanish, \$1.50 per crate.

Cherries.—\$3 per bu.

Apples.—Home growth \$1@1.50 per bu.

Raspberries.—Red, \$3@3.50 per bu.

Peaches.—Bushel measures, \$2.25; sixbasket crates, \$2.50; four-basket crates, \$1.25.

Blackberries.—Firm at \$2.75@3 per bu. Huckleberries.—Higher. \$3@3.50 per

Huckleberies.—Higher. \$3.03.50 per bushel.

Vegetables.—Beets, new, 20@25c per doz; carrots, new, 20c per doz; cauliflower, \$1.50 per doz; garlic, 10c per flower, \$1.25 per doz; garlic, 10c per lb; green beans, 75c per bu; green onions, 12½c per doz; green peas, \$1.25 per bu; green peppers, 45c per basket; leaf lettuce, home-grown, 30c per bu; head lettuce, 50c per bu; mint, 25c per doz; mushrooms, 50m 60c per lb; pieplant, 15c per doz; radishes, round, hothouse, \$20c per doz; radishes, round, hothouse, \$20c per doz; vegetable oyster, 40c per doz; watercress, 25m 30c per doz; wax beans, \$1 per bu box. box.

OTHER MARKETS.

Grand Rapids.

Grand Rapids.

Wheat has advanced 3c since last week, the local mills paying \$1.02. Buckwheat is off 5c, beans 10c. In dairy products, dairy butter is 1c higher, creamery ½c. Eggs are unchanged. The potato market is lower, prices now ranging about 60@ 70c. Tomatoes have made a great drop, with the coming of outdoor stock, the price on Tuesday's market running about 60c per bu. Huckleberries are worth \$1.65@1.75, blackberries \$1.25. Early peaches, best grades, sold at \$1.75 per bu. Early apples run from 50@\$1.

peaches, best grades, sold at \$1.75 per bu. Early apples run from 50@\$1.
Quotations follow:
Grains.—Wheat, \$1.02; oats, 40c; corn, 72c; buckwheat, 55c per bu; rye, 60c.
Beans.—Machine screened, \$1.90.
Butter.—Buying prices, Dairy, No. 1, 21@23c; creamery in tubs, 26½c; prints, 27c per lb.
Potatoes.—60@70c per bu.
Eggs.—Case count, 21@22c.
Peaches.—\$1.75 per bu.
Huckleberries.—\$1.75; blackberries, \$1.25; apples, 50c@\$1.
Vegetables.—Tomatoes, 60c bu; sweet. corn, 10c doz; cabbage, 25@30c doz.
Cattle.—Cows, \$2.50@4 per cwt; steers and heifers, best quality, 3@5½c; dressed mutton, 9@10c; dressed veal, 6@9c; dressed beef, cows, 5@6½c; steers and heifers, 7½@9½c.
Hegs.—Dressed, 10@10½c.
Live Poultry.—Fowls, 10@12c; roosters, 16@16c; spring ducks, 13@14c.

New York.

New York

New York.

Butter.—Firm and higher. Western factory firsts, 21½c; creamery specials, 27@27½c.

Eggs.—Steady. Western first to extras, 21½@25c; seconds, 20@21c.

Poultry.—Dressed, steady. Western broilers, 14@20c; fowls, 15½@17c per lb; Live.—Steady. Western chickens, 16@19c; fowls, 16@16½c.

Grain.—Wheat, No. 2 red, \$1.10 per bu; corn, No. 2, 80c for old; oats, mixed, 48c.

Chicago.

Wheat.—No. 2 red, \$1.04@1.05; Sept., 99%c; December, 96%c; May, \$1.00%.

Corn.—No. 2, 68@70c; Sept., 65%c; December, 55%c.

Oats.—No. 3 white, 38@39c; Sept., 28%c.

Butter.—Market firm at 26½c per lb., which is an advance of ½c over last week's price. Sales for last week amounted to 939,200 lbs., compared with 953,500 lbs. for the previous week.

Boston.

Wool.—During the past week the largest amount of business was transacted for any week of the past three years, and approached the weekly record for this point. Manufacturers are anxious to get hold of raw material without quibbling much over prices, and the movement to the mills is very liberal. The bulk of the trade is in territory offerings, altho there is a noticeable increase in the attention given other lines. Prices are firm and looking upward. The leading domestic quotations are: Ohio and Pennsylvania fleeces: XX, 35@36c; X, 33@34c; No. 1 washed, 40@41c; fine unwashed, 27@28c; fine unmerchantable, 30@31c; ½-blood combing, \$35@36c; Boston.

THE LIVE STOCK MARKETS.

Buffalo.

August 16, 1909.

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

Receipts of sale stock here today as follows: Cattle 165 loads; hogs 11,200; sheep and lambs, 9,000; calves, 1,000.

The best cattle on the market today sold 10@15c lower than last week. Two loads of extra prime cattle, better than any on last week's market, sold at 7c. The medium and common cattle suffered a decline of from 15@25c. We don't look for any improvement on the medium grades as long as the west can furnish our butchers with the Texas and the butchers prefer them to our common grassy cattle.

We quote: Best export steers, \$6.50@6.75; best 1,200 to 1,300-ib. shipping steers, \$5.80@6.10; best 1,100 to 1,200-lb. steers, \$5.60@5.85; medium 1,050 to 1,150 lb. steers, \$5.60@5.85; inedium 1,050 to 1,150 lb. steers, \$5.60@5.85; fair to good, \$4.25@4.50; best fat cows, \$4.25@4.50; best fat heffers, \$4.75@5; fair to good, \$4.00 to 7.50-lb. dehorned, \$4.26.4.50; fair to good, \$3.50@4; cutters, \$2.50; best fat heffers, \$4.75@5; fair to good, \$4.00 to 750-lb. dehorned, \$4.04.25; follow of 750-lb. dehorned, \$4.04.25; follow of 750-lb. dehorned, \$5.00 to 750-lb. dehorned, \$5.00 to

Chicago.

Chicago.

August 16, 1909.
Cattle. Hogs. Sheep.
Received today19,000 26,000 29,000
Same day last year. 24,972 20,758 27,381
Received last week. ...53,862 102,448 86,469
Same week last year. 46,816 118,136 82,897
Cattle were marketed last week much more freely than a week earlier, the advance in prices for desirable offerings encouraging country shippers to send more to market. The appearance of western range cattle in increasing numbers tended to depress prices for native cattle, especially for lots selling below \$6.50, and on Wednesday even steers selling at \$6.50@7 were slow and lower, but they advanced Thursday on a small supply.
Beef steers sold during the week largely at \$5.75@7.25, the best grade going at \$7.25@7.55 and prime yearlings bringing \$7.50. The poorer class of native grassy steers sold at \$4.15@5.25, and desirable export steers weighing 1,250 to 1,400 lbs., were in limited request at \$6.25@6.75.
Cows and heifers sold at \$3.30@6.25, firmness being confined to corn-fed lots, with canners and cutters fair sellers at \$2@3.25, while bulls sold at \$2.50@5.10, and calves at \$3@8.25. Moderate animation only was seen in the stocker and feeder trade, with stocker sales at \$2.75@6.76, the cheaper class of stockers being irregularly lower. It seems strange that with every promise of a splendid corn crop, farmers do not show more disposition to refill their feed lots. Western range cattle were active, the supplies being the largest seen this season and steers selling at \$3.80@6.35 and cows and heifers at \$2.75@5.50. Milkers and springers had a fair sale at \$2.5@55 per head. Beef cattle prospects are poor for common to medium and good for corn-fed

99%c; December, 96%c; May, \$1.00%.
Corn.—No. 2, 68@70c; Sept., 65%c; December, 55%c.
Oats.—No. 3 white, 38@39c; Sept., 65%c; Corn.—Throw the comber, 38c.
Butter.—Firm, with creameries higher.
Cremeries, 23@26c; dairies, 20@23%c.
Butter.—Firsts, 20c; prime firsts, 21%c per doz.

Elgin.

Butter.—Market firm at 26%c per lb., which is an advance of %c over last week with is an advance of %c over last week amounted to 939,200 lbs., compared with 953,500 lbs. for the previous week.

Steers selling at \$3.80@6.35 and cows and heifers at \$2.76£5.50. Milkers and heifers at \$2.76£5.50. Milkers and start spoints to short stocks of provisions of heifers at \$2.76£5.50. Milkers and heifers at \$2.76£5.50. Milkers and heifers at \$2.76£5.50. Milkers and when the winter packing season opens, and while consumption of hog products is checked by unusually high prices, a lowering of quotations later on would start up a normal demand.

FIX YOUR ROOF

FIX YOUR ROOF

The Perfect condition, and keep it in pastures than in former years. All in pastures than in former years. All this points to short stocks of provisions opens, and while consumption of hog products is checked by unusually high prices, a lowering of quotations later on would start up a normal demand.

FIX YOUR ROOF

FIX YOUR ROOF

FIX YOUR ROOF

The Perfect condition, and keep it in perfect condition.

The perfect of the perfect of the perfect of the perfect of the perfect o week ago.

butcher stock was 15@25c lower than a week ago.

Hogs were marketed here and at other western packing points last week in far greater numbers than a week earlier as a result of the good rally late in the previous week. As usual, eastern shippers purchased a very fair proportion of the receipts, but after the daily outside demand was filled local packers usually managed to fill their orders on a low basis. As a rule, the market was slow and on the down-grade, packers being bearish, and they allowed hogs to accumulate in the pens from one day to another in rather large numbers, thereby adding to the depression. Receipts are running more and more to heavier hogs, including more brood sows, which are strongly discriminated against by buyers. Grassy hogs also have to go at a

%-blood combing, 35@38c; 4-blood combing, 36@36c; delaine washed, 39@40c; delaine unwashed, 30@34c. Michigan, Wistumwashed, 20 New York fleeces, Fine unwashed, 20 New York fleeces, Fine unwashed, 20 New York fleeces, Fine unwashed, 20 New York fleeces, Fine to good durwashe and 20 New York fleeces, Fine and 20 New York Central Stock Yards, New York Central Yards, New York Central Stock Yards,

LIVE STOCK NOTES.

The time has arrived when it seems prudent for stockmen to send to market cattle that are not prime, but what are known as half-fat kinds, ranging in weight from 1,000 to 1,300 lbs.; but well-bred cattle that can be finished as choice beeves should be well matured, as there is a real scarcity of choice cattle thruout feeding districts, both east and west. Range cattle are being marketed in increasing numbers and are affecting prices of farm-fed cattle materially. Live stock commission firms of Chicago recently that they have been selling grass cattle of fair quality at exceptional prices and that they believe that such cattle will sell 50c lower within two months. Killers always show a strong preference for good grass-fed range cattle over natives of the same class, as the rangers make a better showing on the hooks. This year range cattle are coming to market fatter than usual, and there will be, according to all the present indications, a poor showing of range feeding cattle. The ranges were never in better condition, and cured buffalo grass makes a good grade of beef. The early marketings of western range cattle are apt to embrace a good percentage of soft cattle, the result of rains and green grass, but after the grass cures the cattle fatten up better and their flesh becomes more solid. It is universally admitted that there will be a shortage of range cattle this year, and they will be later than usual in coming to market. At the same time there will be a shortage of corn-fed cattle for at least two or three months.

Farmers everywhere are regretting that they have not bred more hogs, for

same time there will be a shortage of corn-fed cattle for at least two or three months.

Farmers everywhere are regretting that they have not bred more hogs, for it is seen that even with corn selling at unusually high prices, raising hogs for the market has been a profitable occupation. But most farmers are disposed to let their pigs and half-fattened hogs go to market when corn is selling at high prices, and dear corn and attractive hog prices have resulted in close marketing of hogs for a year past. Even brood sows have been sold off, regardless of the importance of retaining them for a new "crop" of pigs, and many farmers who had been breeding in most years twenty to thirty sows bred only five to ten last spring. Then the spring was cold and wet, and many farmers had bad luck with their pigs, the result being decidedly less in pastures than in former years. All this points to short stocks of provisions when the winter packing season opens, and while consumption of hog products is checked by unusually high prices, a lowering of quotations later on would start up a normal demand.

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THIS IS THE LAST EDITION.

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

DETROIT LIVE STOCK MARKETS.

Thursday's Market. August 19, 1909. Cattle.

Receipts, 476. Good grades strong; bulls-15@25c lower; other grades steady last week's opening.

We quote: Dry-fed steers, \$5.50; steers and heifers, 1,000 to 1,200, \$4@4.50; steers and heifers, that are fat, 500 to 1,000, \$3.75@4.25; grass steers and heifers that are fat, 500 to 1,000, \$3.75@4.25; grass steers and heifers that are fat, 500 to 700, \$3.25@3.50; choice fat cows, \$3.75@4.10; good fat cows, \$3.25@3.50; choice fat cows, \$3.75@4.10; good fat cows, \$3.50@35; canners, \$1.50@2; choice heavy bulls, \$3.50@35; canners, \$1.50@2; choice heavy bulls, \$3.50; stock bulls, \$2.50@3; choice feeding steers, 800 to 1,000, \$3.64.25; fair feeding steers, 800 to 1,000, \$3.50@4; choice stockers, 500 to 700, \$3.60; stock bulls, \$3.50@37; choice feeding steers, 800 to 1,000, \$3.50@4; choice stockers, 500 to 700, \$3.60; stock bulls, \$3.50@37; choice feeding steers, 800 to 1,000, \$3.50@4; choice stockers, 500 to 700, \$3.60; stock bulls, \$3.50@3.76; fair feeding steers, 800 to 1,000, \$3.50@4; choice stockers, 500 to 700, \$3.60; stock bulls, \$3.50@3.76; fair stockers, 500 to 700, \$3.60; choice feeding steers, \$800 to 700, \$3.50@3.40; choice feeding steers, \$800 to 700, \$3.60; choice feeding steers, \$800 to 700, \$3.50@3.40; choice feeding steers, \$800 to 700, \$3.60; choice feeding steers, \$800 to 700, \$3.60; choice feeding steers, \$800 to 700, \$3.50; choice feeding steers, \$800 to 700, \$3.60; choice feeding steers, \$800 to 700, \$3.50; c

at \$3.60. 110
Haley sold LaBoe 8 butchers av 770 S
at \$3.85. \$6.4

Robb sold same 2 butchers av 1,165 at \$3.50, 3 cows av 900 at \$3, 9 butchers av 764 at \$3.75.

Haley sold Sullivan P. Co. 23 bulls av 514 at \$2.95, 7 butchers av 827 at \$3.75.

Kendall sold same 5 cows av 990 at \$3.50 \$3.50.

Carmody sold same 3 steers av 1,093

Carmody sold same 3 steers av 1,093 at \$5.25.

Haley sold Bresnahan 2 heifers av 455 at \$3,3 do av 666 at \$3.75.

Haley sold Greene 5 stockers av 568 at \$3.50, 14 do av 526 at \$3.50, 5 do av 420 at \$3.25, 2 do av 500 at \$3.50.

Haley sold Rattkowsky 5 steers av 822 at \$4.25, 6 heifers av 646 at \$3.65.

Carmody sold Thompson 7 butchers av 703 at \$3.60.

Haley sold Marx 3 butchers av 793 at

Haley sold Marx 3 butchers av 793 at 5 do av 1,040 at \$4.25.

Haley sold Marx 3 butchers av 793 at \$4, 5 do av 1,040 at \$4.25.

Veal Calves.

Receipts, 368. Market steady at last week's prices. Best, \$7.75@8.50; others, \$4@7; milch cows and springers steady.

Roc Com. Co. sold Hammond, S. & Co. 9 av 150 at \$8.25, 8 av 140 at \$7.50, 1 weighing 130 at \$7.50; to Parker, W. & Co. 19 av 140 at \$7.50; to Goose 3 av 165 at \$6; to Mich. B. Co. 4 av 185 at \$8, 2 av 275 at \$5; to Hammond, S. & Co. 3 av 125 at \$8, 5 av 160 at \$8.

Co. 3 av 125 at \$8, 5 av 160 at \$8.

Haley sold Hammond, S. & Co. 5 av 145 at \$7.50, 2 av 125 at \$7.50.

Allen sold same 3 av 170 at \$8, 4 av 130 at \$6.50.

Johnson sold Sullivan P. Co. I weighing 160 at \$6, 11 av 145 at \$7.50.

Lachlin sold same 6 av 155 at \$7.50.

Lachlin sold same 6 av 155 at \$8.

Spicer, M. & R. sold Mich. B. Co. 12 av 140 at \$8, 1 weighing 190 at \$6; to Caplis 14 av 145 at \$7.50, 13 av 150 at \$6, 2 av 150 at \$6.25; to Goose 6 av 275 at \$3.50, 5 av 210 at \$5; to Newton B. Co. 11 av 151 at \$7.50; to Rattkowsky 2 av 215 at \$7.50; to Fitzpatrick Bros. 5 av 165 at \$7.50.

Bishop, B. & H. sold Sullivan P. Co. 7 av 130 at \$7.75, 2 av 130 at \$7.50; to Fitzpatrick Bros. 5 av 165 at \$7.50.

Bishop, B. & H. sold Sullivan P. Co. 7 av 130 at \$7.75, 2 av 185 at \$6, 11 av 190 at \$7.75, 2 av 185 at \$6, 11 av

\$7.50; to Fitzpatrick Bros. 5 av 165 at \$7.50; bishop, B. & H. sold Sullivan P. Co. 7 av 130 at \$7.75, 2 av 185 at \$6, 11 av 175 at \$8, 10 av 140 at \$7.50; to Parker, W. & Co. 3 av 150 at \$7.50; 9 av 160 at \$5.50, 9 av 155 at \$8, 17 av 150 at \$8; to Fitzpatrick Bros. 8 av 155 at \$5.25, 4 av 210 at \$4.50; to Haumend, S. & Co. 1 weighing 150 at \$8.50; to Parker, W. & Co. 10 av 162 at \$8, 3 av 180 at \$8; to Fitzpatrick Bros. 11 av 140 at \$8.15. Haley sold Mich. B. Co. 2 av 180 at \$8, 3 av 225 at \$4, 2 av 200 at \$5, 13 av 150 at \$7.50.

Duelle sold McGuire 9 av 140 at \$8. Stephens sold Burnstine 8 av av 180 at \$8.25.

Kendall sold same 26 av 185 at \$8.25.

Lewis sold same 2 av 160 at \$8.

Noble sold Frideman 5 av 150 at \$7.75.

Sheep and Lambs.

Sheep and Lambs. Receipts, 1,125. Market 50c lower than

Sheep and Lambs.
Receipts, 1,125. Market 50c lower than last week

Best lambs, \$6.75; fair to good lambs, \$6@6.75; light to common lambs, \$4@4.50; yearlings, \$5@5.50; fair to good sheep, \$3.75@4.25; culls and common, \$2@3.

Spicer, M. & R. sold Mich. B. Co. 36 lambs av 68 at \$6.75, 30 do av 68 at \$7.5 do av 58 at \$5, 1 sheep weighing 100 at \$4.25, 4 do av 80 at \$3.50, 17 lambs av 67 at \$6.50, 74 sheep av 105 at \$4.10; to Sullivan P. Co. 21 lambs av 70 at \$6.25, 47 do av 73 at \$6.50, 13 sheep av 80 at \$4; to Stoker 7 lambs av 50 at \$5.50; to Harland 1 buck weighing 120 at \$3, 2 do av 135 at \$4, 30 lambs av 65 at \$6.25; to Young 4 yearlings av 62 at \$4.75, 38 lambs av 70 at \$6; to Fitzpatrick Bros. 2 sheep av 125 at \$3, 6 do av 150 at \$4.

Bishop, B. & H. sold Mich. B. Co. 81 lambs av 73 at \$6.75, 31 sheep av 65 at \$4, 10 lambs av 73 at \$4, 11 sheep av 120 at \$3.50; to Sullivan P. Co. 2 do av 120 at \$3.50, 8 yearlings av 93 at \$5, 9 do av 83 at \$5.50, 15 lambs av 70 at \$6.50; to Fitzpatrick Bfos. 1 buck weighing 130 at \$3, 18 sheep av 90 at \$4.75, 62 lambs av 72 at \$6.30, 30 do av 68 at \$6.75.

Haley sold Hammond, S. & Co. 1 buck weighing 150 at \$4, 12 lambs av 75 at \$6.50.

Robb sold same 29 do av 65 at \$6.40.

Allen sold Mich, B. Co. 10 lambs av 54

Robb sold same 29 do av 65 at \$6.40. Allen sold Mich. B. Co. 10 lambs av 54 t \$5, 4 sheep av 105 at \$4, 52 lambs av 6 at \$6.50. \$5, 4 she at \$6.50.

Haley sold same 12 sheep av 100 at \$4.25

Johnson sold Newton B. Co. 5 lambs v 52 at \$5.50, 105 do av 75 at \$6.25. Haley sold same 126 do av 70 at \$6.25. Anderson sold sare 29 do av 60 at

\$5.65.

Roe Com. Co. so d Mich. B. Co. 60 lambs av 68 at \$6.50, 12 sheep av 95 at \$3.75, 11 do av 110 at \$3.75; to Stocker 19 yearlings av 70 at \$5; to Hammond, S. & Co. 25 sheep av 88 at \$4.25; to Young 58 lambs av 70 at \$6.25; to Hayes 40 do av 55 at \$5.75; to Thompson 29 sheep av 75 at \$4; to Parker, W. & Co. 60 lambs av 73 at \$6.50.

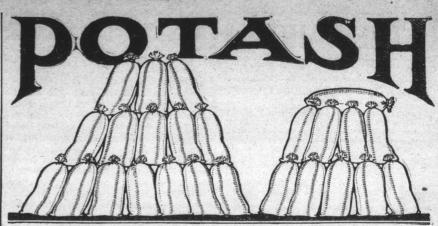
Haley sold Esphylich 21 at 10.

Haley sold Eschrich 21 sheep av 100 at \$3.50, 40 lambs av 65 at \$6.

Lachlin sold Sullivan P. Co. 4 sheep av 50 at \$4, 20 lambs av 65 at \$6.

Bergin & W. sold same 11 sheep av 110 at \$4.50.

Stephens sold same 30 lambs av 60 at



10 More Bushels of Wheat for 87 Cents

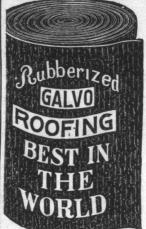
The result of a test. Two Fertilizers used, in which the quantities of Nitrogen and Phosphates were the same. No Potash yielded 21 bushels per acre. With Potash the yield was 31 bushels. The extra cost for Potash was 87 cents.

Potash makes deep roots, gives strength to the stalk, vitalizes the plant, fills out head and grain and increases the weight.

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We will prepay the freight in full provided your home is within 400 miles of Chicago or East of the Mississippi and North of the Ohlo Rivers. Rates to other points on application. This freight prepaid proposition refers only to the Rubberized Galvo Roofing in this advertisement. Here is a roofing, that is slate color, tough leather-like material. It is made of a combination of wool felt and highest grade of natural asphalt. It is water-proof. Ightning-proof and fire-proof Water runs off is at it does off a duck's back. It will not taint rain water. It makes buildings warmer in winter and cooler in summer. It is not affected by acids, alkall or gases. It has a rubbery surface and on this account we call it "RUBBERIZED GALVO ROOFING." It does not contain coal tar, residium, nor anything that will deteriorate in the weather. The best grade of natural asphalt known is used in its manufacture. It will war as long as the building stands, provided you give it ordinary care. It does not require a coating after it is on the roof. It toughens and hardens with age. We furnish with each order sufficient cement to make the laps, besides nails and caps to put it on. Anyone with an ordinary hammer can lay this roofing. You can put it on over shingles without removing same. It requires but little time to put it on your roof. Two men can lay twenty squares a day. It is appropriate for any kind of building, either factory, dwelling, barn, store, church, etc. It is also used as siding or lining. It is put up 108 square feet to the square.

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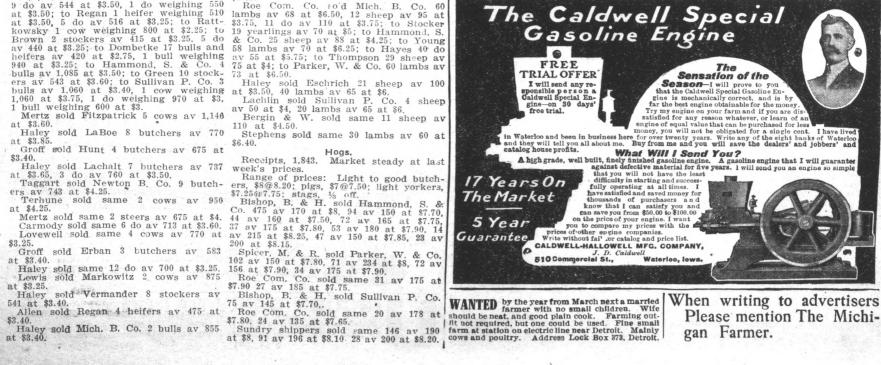
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SEPARATION BY DEEP SETTING.

I am only keeping two cows and make butter. I do not get milk enough to buy a hand separator. Kindly advise me if cream can be raised successfully in one of those double can separators—that is where you put the milk in the inner can and put the water around it instead of diluting the milk? I do not want one where you have to put water with the milk.

WM. Fox. If proper conditions are observed, deep setting of milk is the best known way next to the centrifugal separator, of separating the cream from the milk. The old fashioned way was to set the milk in shallow pans, and then the deep setting system was introduced. Deep setting will give a more complete separation, providing several things are observed, than the shallow-pan setting. In the first place, you must have ice water surrounding the milk, the milk must not be disturbed after it is once put into the can, and it should be put into the can just as soon as possible after it is milked. If these things are observed, you can get fairly good results by deep setting, but then you cannot get as large an amount of cream as with the centrifugal separator. Of course, you don't get complete separation, but you get very fair results if you have ice cold water and keep it cold and put the milk in as soon as you can after milking. As I this is the best known way of separating the milk, with the exception of the centrifugal separator. It is too bad that Mr. Fox cannot persuade himself to keep more than two cows and and wheat bran half and half by then adopt the latest, most up-to-date, and scientific way of separating milkby using a centrifugal separator.

A COMPARISON OF FEEDS.

There are two different brands of "dairy foods" for sale in our town, both are so called "molasses feeds" and are by-products from cereal factories and each are very much relished by the cows. Both feeds are now selling at \$1.35 per cwt. The analysis given on each sack is as follows: No. 1—Fat 3 per cent; protein 14 per cent; carbohydrates 60 per cent; crude fibre, 11 per cent. No. 2—Crude protein, 8.58 per cent; ether extract, 1.50 per cent; ash, 3.10 per cent; moisture, 3.51 per cent; crude fibre, 9.58 per cent; nitrogen free extract, 73.73 per cent. What I wish to know is whether they are economical feeds or not, which is the more economical and whether they are balanced feeds for a summer grain? Subscriber. whether they summer grain? SUBSCRIBER.

This letter from subscriber brings out a very important idea that we have been It brings out, in fact, the very meat, or kernel, of the whole feeding question, tho not in a marked degree. Let us look at the analysis of the different feeds. No. 1 contains 3 per cent of fat. No. 2 contains 1.5 per cent of ether extract, which means fat. Fat, of course, belongs to the carbohydrates and it has been demonstrated that 1 lb. of fat is equal to 21/2 lbs. of carbohydrates. when we estimate the fat of a feed and put it in with the carbohydrates, we as these two elements are concerned, No. 1 is worth twice as much as No. 2, because it contains twice as much fat. 2 contains 8.5 per cent protein, or No. 1 contains about one and two-thirds in the food. It goes to produce muscular the animal product. For instance, the I have no personal knowledge of what cow could not give milk at all unless her they do or can do. food contained a certain amount of prowould fat, or carbohydrates; but protein animal to do this, hence he should furhe must not neglect the protein because 1 would be worth as much as a ton and is giving only a little milk, perhaps owing two-thirds of No. 2. Again, No. 1 con- to some injury to her udder, the two-

tains 60 per cent carbohydrates. Carbohydrates means sugar, starch, etc. worry himself much about carbohydrates figures appear to be very good. because the animal gets sufficient of Of course, I do not mean that we rethose anyway, but if figured on this tain animals in the herd which do not basis, No. 2 is worth more than No. 1. crude fibre, and No. 2, 9.58 per cent. Crude fibre means fibre, or substances that are not digestible. Never buy a food that contains a large per cent of crude fibre because it is not digestible and can do the animal no good. Oat hulls, for instance, would be quite a food did they not contains such a large per cent of crude fibre which is indigestible. No. 2 is a little bit more digestible than No. 1, but not so very much. Now, taking all as much to feed dairy cows on pasture in the summer time as a ton and a half of Yet, subscriber says that they both sell at the same figure. No. 1 is high enough at \$1.35 per 100 pounds and No. 2 is no better feed to feed on pasture than corn meal, in fact, it isn't as good because it doesn't contain as much protein as corn meal and No. 1 would be a little bit better than corn meal, because the nutritive ratio would be narrower from the fact that it contains a larger per cent of protein. No. 1, in my judgment, would make a very good feed at mer and run around the straw stack for this season in connection with pasture, winter can produce 150 to 200 pounds of the cows like it and will eat it readily. I have always advised mixing corn meal weight to feed on pasture, and this No. formula would be just about such a food so far as its chemical analysis is concerned. If the corn meal and wheat bran mixed half and half by weight the line of keeping a cow in that manner. would cost no more than No. 1, then I would prefer that mixture to No. 1, and

ANNUAL OUTPUT OF THE DAIRY HERD.

certainly would prefer it to No. 2.

For some time past I have been interested in the various statements made by different writers as to the yearly production of dairy cows and the cost of the same, especially along the line of the cost per hundred pounds of milk, or a pound of butter-fat. It has always a day than by saving one cent per cow seemed to me that very few farmers, or, in fact, very few dairymen, really know the cost of producing their product and, while we have all preached the gospel talking about for a long time in the of weeding out the poor animals and keeping account of the production, yet few have gone the step farther to also keep the record of what the cow consumed.

starting a large dairy farm and a discussion arose as to the figures to be used animal in the herd of one hundred cows. I think several of the gentlemen figured that 6,000 younds of 4 per cent milk multiply the fat by two and one-half, would be as good as could be expected. This kind of food goes to produce heat I made the statement to them that I thot and energy in the animal. Now, so far 8,000 pounds per year would be perfectly safe, basing this estimate on what I had accomplished with Jersey cattle.

No. 1 contains 14 per cent protein and in talking of our own work, but I wish to the grain is not only spoiled but the butuse the figures, and it is with no spirit ter has a greasy taste and appearance of boastfulness nor with any idea of Pack well, exclude as much air from the times as much protein as No. 2. Protein booming our own breed of cattle that we jar as possible by use of clean damp is one of the most important ingredients give them, since for all we know, others cloths and keep in the coldest place on may do better. I may state right here tissue and the vital organs in the animal that never having had any experience body, and also the nitrogenous part of whatever with any other breed of cattle

We have kept an accurate account or tein, because she could not produce the the milk produced by each and every caseine in the milk without protein in cow, also, have kept account of the cost the food. It would be absolutely im- of feeding the herd of cows. The milk possible to convert carbohydrates, or fat, has tested from 5.5 per cent to 5.8 per or starch or sugar, into caseine, a nit- cent butter-fat. The records show that rogenous product. Consequently this is the past year the average has been 6,690 a very important element. Now, on the pounds of milk per cow, this at the averother hand, the animal could use protein age test of even 5.5 per cent is equal to for the very identical purpose that it a little over 435 pounds of butter per year. We have had as low as 51 and as costs more than fat and carbohydrates high as 68 cows in the herd. These figand the farmer cannot afford to allow the ures are obtained by weighing and testing every 15 days the amount of milk nish all the carbohydrates necessary. But produced and dividing by the total number of cows that day-not the number of the animal cannot do without it. So far cows giving milk alone, but the total as the protein is concerned, a ton of No. number, including those dry, the cow that

year-old heifers, and being a herd of No breeding animals there are certain ani-2 contains 73.73 per cent of nitrogen free mals which the purely dairy farmer extract, which means the same as carbo- would dispose of, animals which the extract, which means the same as carbo- would dispose of, animals which tho hydrates. In this food No. 2 is more val- much past their prime as dairy cows are uable than No. 1, but this does not offset retained for breeding purposes, and also the importance of the protein in No. 1, when it is considered that we are conbecause the ordinary food fed on the stantly selling from the herd what purfarm contains sufficient of the carbohy-chasers desire rather than the animals drates and, in fact, the farmer need not which we wish to dispose of, the above

pay their way, keeping them for past Again, No. 1 contains 11 per cent of records. When a cow only pays her way she is disposed of no matter what her past record may have been. I do not mean, however, that were I in the dairy business alone, certain animals might be disposed of sooner. I believe I could, by culling closely make my herd produce 8,000 pounds of milk testing over 5 per cent butter-fat, and if we can produce even the results we have produced with a herd of Jersey cattle under the conditions as cited above, it does seem to me these things into consideration, I would that a herd of one hundred cows kept say that a ton of No. 1 would be worth strictly for dairy purposes and enjoying certain exceptional advantages possible with a herd of that size, that 8,000 pounds of 4 per cent milk should be the minimum considered.

It also seems that the average farmer keeping a few cows looked after by himself or by a member of his own immediate family, should not be content with any less than 400 pounds of butter apiece for each cow kept. Of course, to obtain such results the farmer must feed.

Perhaps cows coming fresh in the spring, allowed on pasture for the sumbutter cheaper or at a less pound than does the cow producing 400 to 500 pounds of butter in a year. If the former does produce that much I have no doubt but it is secured at a less cost per pound than the latter, but the trouble is. I have never had any experience along I know what it costs me to produce 100 pounds of milk or a pound of butter-fat, but after reading what some of our Michigan farmers claim, I will admit that I do not care to give figures. However, I know that a ration of clover hay, ensilage, dried beet pulp, and cottonseed meal produces milk and butter-fat at a less cost than any other winter ration that I have been able to obtain, and if any of your readers know of a cheaper one I would like to learn of it, for I know of no better way of making sixty cents per day on her feed bill, providing said cheaper ration will produce equally good or better results. T. F. MARSTON.

To Make Good Butter.-Rinse churn with hot water, then cold, except in winter when cold water rinsing is unnecessary Place cream in the churn at about 55° F. in the summer and 60° F. in the A short time ago a few farmers of the winter. Add color to suit taste. Fill the state were approached with the idea of churn about one-third full and turn crank at speed which will allow the greatest splash in churning. Stop churning when for basing the average production of each butter granules are about the size of a wheat grain. Draw off buttermilk. Rinse butter with pure cold water until rinse water runs off almost clear. Salt may be added to suit taste; an ounce per pound of butter is usually sufficient Work salt in by pressing butter worker or paddle straight down without drawing it over the surface. Where a paddle is You will pardon the seeming conceit drawn across the surface of the butter the farm.-Maryland Exp. Station.

The word "DISKS," shown above, was formed of 52 disks taken from one common "bucket bowl" cream separator a disgusted farmer and his overworked wife discarded for a Sharples Dairy Tubular. The "disk man" misled them by calling this complicated machine simple and easy to clean. Fifty-two disks look simple, don't they?



Let disk and other "bucket bowl" cream separators alone. Get a light, simple, sanitary, easy-to-clean Sharples



Dairy Tubular, with nothing inside the bowl but the tiny piece on the thumb. Thousands are discarding "bucket bowls" for Tubulars. The manufacture of Tubulars is one of Canada's leading industries. Sales ex ceed most, if not all, others combined. Write for Catalog 152

The Sharples Separator Co. Toronto, Ont. Winnipeg, Man.









FOR 450-LB. CAPACITY DAIRY CREAM SEPARATOR

From factory to you. No middle profit. Ten-year guarantee. Thousands in use in Michigan, because the Dairy Queen is right. The price is right. Ask your neighbor. Allegan, March 29, '09—I tried's Dairy Queen beside a De Laval, Sharples, and Omega, and bought it because it is simpler, runs lighter, skims closer and in three years use cost nothing for repairs and is as good as new GEO. H. JEWETT.

Litchfield, May 24, '09—I have used a Dairy Queen for 4 years, it is very easy to operate and take care of, runs light and skims close and we have not been to one cent of expense for repairs.

Thousands of web latter.

Thousands of such letters. Free trial. Money back

any time. Order today. Freight paid.

W. E. CALLANE, Mfg. Sales Manager for Michigan, LOWELL, MICH. If your letter was returned write us again.

NICORN DAIRY RATION—The greatest milk. on the market. It has increased the milk output 25 gallons a day in numerous cases; it will increase it for you. Send for Booklet, prices, etc. CHAPIN & CO. Inc., Milwaukee, Wis.

SOME OBSERVATIONS ON THE PRES-ENT POULTRY SITUATION.

A grain merchant, who distributes an enormous amount of grain, recently said that there are one-third, at least, fewer hens and chickens than the normal number in the territory he supplies with grain. No doubt this shortage comes very largely from the very high prices of grain. There is no doubt about grain being high. Again, there is no doubt that eggs are going to be in demand, and the same may be said of table poultry. August finds eggs rising-30 cents dozen for the nearby fresh article. Live fowls bring 13 to 14 cents per lb., and concerning the feeding value of rye as broilers 16 cents. These are very high prices for the season, but in view of the apparent short crop of chickens it looks as the eggs would pretty nearly bring them during the processes of digestion, five cents each before Thanksgiving.

hens in this country that are kept at a kind. The feeding tables show that there loss on account of their age. I am a is little choice between these grains so stickler for pullets, but this year I am far as digestible nutrients are concerned, inclined to think the price of eggs will the analyses showing wheat to contain be such that a good profit can be had 10.2 per cent protein, 69.2 per cent car-from yearling hens but not from older bohydrates and 1.7 per cent fat, while ones. lings are the limit for profitable pro-

Offsetting Greater Cost of Feed.

the high prices of grain can, in a measure, be partially offset. The first is by slightly more starchy than wheat and culling closely and getting rid of the therefore, supposedly, a trifle superior as loafers. Also, better care than has been a food for keeping up body temperature given by many will materially increase and for fattening. However, the differegg production.

average grocery store. No pains are into the market basket, altho few would chicks or laying hens. care to eat them in home-cooked food. The mixing of good with bad reduces the selling price of the case, hence if one would get the best price possible he should endeavor to have an article that can always be depended upon for its freshdemands a good article.

will sooner or later be found out. It is fowl daily. much better to have the name of furnishing a fancy article and have reputable concerns always anxious to secure your Many times during a shortage they will offer a premium of 1@2c per doz. on eggs which they know can be depended upon.

Boston is the New England market for fancy fresh eggs. I think, by shipping there, I realize about two cents a dozen poultryman—roup. In addition this disabove what local buyers will pay. But ease is generally accompanied by disif one is producing eggs in insufficient have them fresh until a case is filled, there is a good chance generally for as many neighbors as wish, to join forces and fill a case quickly. Eggs can be or express for one cent per dozen. Then, too, in selling on such a market you get cash and can spend it where you can get most for it.

Short Feeding is Expensive.

Another thing: many think to economize when grain is high by short feeding. and you will get no income at all from

Short feeding is expensive feeding to any farm animal. When grain is high and the chances for profit are cut down. it lies with us to "get into gear" and so far as is possible. Sometimes it means variety in feeding.

sufficient poultry keepers whose hens are in milk or raw eggs.

in no way their dependence, will drop out, and this will give those who need their flocks a wider market and higher

Maine. D. J. RYTHER. (It should be borne in mind that the prices named by this correspondent are those at present prevailing in the eastern markets for goods of the choicest quality. The prediction that the price of eggs will double by Thanksgiving will not be credited by some, altho few will question the statement that values will be sufficiently high to make good hens, intelligently managed, very desirable property the coming winter.-Ed.)

IN ANSWER TO INQUIRIES.

Rye vs. Wheat for Feeding.

A Hillsdale Co. reader sends an inquiry compared with wheat for fowls. Since the value of grains for feeding depends upon the food nutrients secured from it is natural to turn to the chemist's There are hundreds of thousands of analyses in making a comparison of this For egg purposes I believe year- rye contains 9.1 per cent protein, 69.7 per cent carbohydrates and 1.3 per cent The nutritive ratio, therefore, of wheat is 1:7.1 and of rye 1:8. In other There are two or three ways in which words rye fed alone would constitute a wider ration than wheat alone. It is ence is so small that, as stated above, A considerable increase in income may there is really little to choose between be had by offering a nice article to a them and we know of no reason why good trade. Sit and watch the condition the one might not be satisfactorily sub-of eggs as they are brot to market, in stituted for the other. It should be remembered, however, that the nutritive taken. The eggs are dirty, many of them ratio of each of these grains is rather unfit to take to market. If a hen steals wide, necessitating the addition of foods her nest and sits upon a nestful of eggs fairly rich in protein if they are emafew days they are considered fit to put ployed in making up a ration for growing

Turkeys Suffer from Colds.

My turkeys' heads are very much swelled below eyes. A thin mattery fluid runs from nose but they do not appear sick.

Clinton Co.

Probably due to cold in head caused

ness, and then look for a market that by exposure to wet or to strong draughts. Bathe the head with a chlorate of potash A good many seem to think that the solution and give a stimulant. One commain point is to get the eggs off their monly used is made as follows: Mix 1/2 but in shipping eggs to market teaspoonful each of ginger, cayenne pepfor a good class of family trade the stock per and mustard with a teaspoonful of is all candled before being placed on sale, lard. Roll the mixture into good-sized and if you have shipped stale eggs you pills and give two to each full-grown

Roup in Advanced Stage.

Some of my hens make a rattling sound in breathing. Their combs turn a bluish purple, Bowels are very loose. They live about two weeks in this condition. They have a free range. Some say it is caused

by green oats. Charlevoix Co. W. H. M.

The symptoms given are all present in that disease which is dreaded by every ease is generally accompanied by discharges from the eyes, nostrils and mouth, quantities to be able to hold them and by swelling of the head and by sore patches in the mouth and throat. It commonly results from neglected colds, but fowls that have otherwise become weakened or run down are susceptible, shipped quite a distance by fast freight especially if subjected to extremes of heat and cold or exposed to dampness, foul air or filthiness. Treatment is of little value after the stage indicated has been reached. Fowls which produce a pronounced rattling sound in breathing should be promptly destroyed and the bodies buried or burned at once. The Remember the surplus, above the amount danger of the disease spreading to the of food required for maintenance, is what entire flock is seen when it is remembered produces eggs. You can't fool the old that the matter discharged from the hen but she can fool you. If she is short head is highly infectious; also that the that the matter discharged from the fed she will stop laying but still be very discharges from the bowels contain germs comfortable on a maintenance ration, which will cause the disease. Therefore fowls which as yet show no signs of disease should, if possible, be removed to grounds which have not been traversed by the sick fowls. Then these fowls should be closely watched lest a fresh outbreak occur among them. Confine in some way offset the adverse conditions the affected ones-such as are considered worth treating-to limited quarters and better and cleaner quarters, sometimes thoroly clean up and disinfect every part culling, and sometimes better quality and of the premises to which the diseased fowls have had access. In treating 3-STROKE SELF-FEED HAY PRESS. I believe that at such a time it is short- affected fowls, wash the head and sysighted to stop raising chickens, or to ringe the nostrils and mouth with equal sell off pullets after they have been parts of peroxide of hydrogen and water raised. When the conditions are adverse, daily. Feed only beef tea, bread soaked



CORN IS A DOUBLE CROP FOR THE MAN WITH THE RIGHT MACHINES

THE grain—that is, the ears—represent only about 60 per cent of the feeding value of your corn crop

The other 40 per cent-almost half of the feeding value-is in

If you leave the stalks standing beyond the time that the corn has reached its maturity, the feeding value of the fodder dwindles to almost nothing. The wind and weather leave little more than woody

Then you get only the ears as your return on the crop. You make corn a single crop.

To make corn a double crop-to get your full 100 per cent feeding value-handle the crop so that the fodder will be about equal to timothy hay for feeding.

USE I. H. C. CORN MACHINES

You cannot harvest the corn rapidly enough by hand to conserve the nourishing elements of the fodder. To hire enough help to do this would eat up the profit. Go over the field when the ears begin to glaze, with a Deering, McCormick, Milwaukee or Osborne corn binder. One man and a team is all that is needed. The harvester will cut and bind the corn as fast as the team can walk, and dump the bundles in piles ready for shocking.

Then put the crop through the husker and shredder. A Deering, McCormick or Plano husker and shredder will husk the ears, cut the stalks, leaves and husks into fine shreds, giving you a roughage rich in protein, starch and sugar and one that the stock will relish.

That's the 100 per cent way of handling the corn crop-that is how thousands of farmers have doubled up on returns from their corn land.

Start this season to get your 100 per cent. To invest in two machines that will save the 40 per cent feeding value every year will certainly appeal to you when you get to figuring.

Talk it over with the International local agent or write us for full

INTERNATIONAL HARVESTER COMPANY OF AMERICA

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SANDWICH MFG. CO., 140 MAIN ST., SANDWICH, ILL.

WANT several pairs of old and young White Muscove Ducks. Also White China Geese. Must be good. State prices and number to spare. E. J. HASKINS, Pittsford, Mich.

Barred Plymouth Rocks—Eggs for hatch-\$1; 26 for \$1.50; 50 for \$2.50; \$4 per hundred. Satisfac-tion guaranteed. Colon C. Lillie, Coopersville, Mich.

EGGS-Light Brahma, White Wyandotte and B P. Rocks \$1 a setting, \$1.50 for two settings. E. D. BISHOP, Route 38, Lake Odessa, Mich. S. C. BLACK Minorca eggs at \$1.50 per setting of 15. P. C. Pigs singly or in pairs of the best breeding. R. W. MILLS, Saline, Mich.

S. C. Brown Leghorns. We hatch our best birds in June and July. Our best eggs \$5 per 100; \$1 per 15. Send for cir-cular, best flock in Mich. Fred Mott, Lansing, Mich.

SILVER Laced Golden and White Wyandottes, 500 D fine breeders to select from after Oct, 1. Watch our ad. for bargains. C. W. Browning, Portland, Mich.

White Wyandottes, been breeding them con-A. Franklin Smith, R. F. D. No. 9, Ann Arbor, Mich

SINGLE COMB WHITE LEGHORNS Trg. Price, 15 for \$1; 26 for \$1.50; 50 for \$2.50; \$4 per hundred. Satisfaction guaranteed. Colon C. Lillie, Coopersville, Mich

DOGS.

FOX AND WOLF HOUNDS of the best English strains in America; 40 years experience in breeding these fine hounds for my own sport; I now offer them for sale. Send stamp for Catalogue.

T. B. HUDSPETH, Sibley, Jackson Co., Mo. TRAINED FOX HOUNDS and Hound Pups for hunting fox and coons. Also Collies & Ferrets, Inclose 2c stamp. W. E. Lecky, Holmesville, Chio.

FERRETS.

4,000 LIGHT AND DARK FERRETS Catalog free. C. J. DITICK, Rochester, Ohio.





All Steel and Iron Two Men can run It. The Auto-Fedan Hay Press Co. 1511 W. 12th St. K. C. Mo. Ask for Catalogue No. 11

DESCRIPTION AND WORK OF THE TUSSOCK MOTH.

Particularly those farmers who have and admire shade trees on the lawn and farm, are concerned about the depredations of the tussock moth. In some communities trees are nearly defoliated and it is difficult for a good farmer to sit by and watch the destruction go on crops, as potatoes, tomatoes, etc., I know without a protest from him. Entomologist of the state experiment station, Prof. R. H. Pettit, has the following to say about the pest:

Michigan between two enemies of park and shade-trees, the tussock-moth and the fall web-worm. Both feed on a great variety of trees and shrubs, fruittrees and ornamentals, and both do their work at nearly the same time, the first named being somewhat earlier.

The web-worm makes its work conspicuous by spinning large webs in the branches of trees during late summer and the best possible time to provide this early fall, but the tussock moth does not produce any conspicuous nest other than the cocoon in which it passes the pupal avoided and the ground should be thoroly stage.

are very pretty objects, being yellow with black longitudinal stripes and brilliant red heads. The name is suggested by the brush-like bunches of hair or tussocks, four of which are cream-colored handled. This preparation is far better and adorn the interior part of the back. made now than in spring, as the plants Two more are long and black and proshould be set by the time that soil conject forward on each side of the head. A single similar black tuft projects back- done, and if left until then it is very ward from the tail. The caterpillars sometimes reach the length of two inches.

When full size is reached, the caterpillar spins a loose cocoon of gray silk, weaving in the hairs from the skin, and here it waits for a few weeks. Finally the adult moth comes forth. Strange to say, the female is wingless. She has legs and looks just like other moths or millers with the wings cut off short. The male is provided with wings just as are the majority of moths or millers. Fortunately the females are very poor travelers and always lay their eggs on the cocoons from which they have just emerged. These eggs are small and seedlike, and are laid in a fine lathery froth which dries down and is easily crumbled. Furthermore the cocoons are usually placed quite openly, and the snow-white egg-masses make them quite conspicuous. The most effective remedy in our cities and parks is to gather the cocoons and burn them in the autumn. Sometimes a small bounty paid to school chi.dren yields enormous returns.

As before stated, the females are poor travelers, but the caterpillars crawl to quite a distance, and it has been found practical to keep the caterpillars out of individual trees, after picikng off the egg-masses and cocoons, by placing egg-masses and cocoons, by strips of sticky fly-paper around the trunks over a thin band of cotton, which latter serves to fill the small inequalities of the bark. Tree-tanglefoot or caterpillar-lime, or in fact any sticky substance, which will turn back the crawling vermin will serve the same purpose.

Of course a spray of arsenate of lead, applied while the caterpillars are at work, will kill them, and in orchards this is to be advised, but few house-owners possess spraying apparatus of sufficient capacity to successfully spray the tall shade-trees on their premises and few cities can protect their parks in this way for the same reason. Therefore banding and hand-picking of the cocoons have to suffice, and these usually prove sufficient if conscientiously done.

SOME TIMELY TOPICS.

Care of the rhubarb bed is now in order and especially so, if a winter crop is grown. Now that the summer growth is exhausted it is highly important that work among the plants should begin. All grass and weeds should be destroyed either by horse or hand culture, and ease. crops, induce the hens to work among it. Scattering small amounts of the fine grains among the plants will encourage their work and it is the best protection against the beetles which are getting especially troublesome to the summer crop. The plants should not be allowed to mature any seed stalks as this is a greater drain upon the vitality of the plants than the growth of all the leaf stalks of the

possible, and a heavy application of well rotted manure should follow at once. The roots require the rest and time to recuperate that nature has designed; and

the better the conditions and the longer the period of rest the better for the succeeding crop. So it becomes especially important that the clumps intended for winter forcing especially, should receive early attention.

The Asparagus Bed.

Baring a few of the staple vegetable of none for which there is a greater demand than asparagus. There is no question as to the money value of the product; and the wonder is that more is A close partnership seems to exist in not grown. For best results it requires special soil; but lacking the ideal in this respect, good crops may be grown on ordinary ground. For those desirous of starting new beds, the autumn is the best time to prepare the ground. High locations with sunny exposure should, if possible, be selected, and where natural dra'nage is not sufficient, the early autumn, while the ground is usually dry is either by open ditches or under drains. By all means shady locations should be cleared of stones, roots or other rubbish. The caterpillars of the tussock-moth Deep fall plowing and, if need be, subsoiling will amply repay all extra expense of time and trouble; and with this plowing should go down as large a quantity of manure as can be conveniently ditions will permit of thoro work being liable to be only half done.

Now as to the conditions of the old beds, it is more than probable that the beetles are now getting in their work of devastation upon the tops. This should be stopped at once for the roots require the best summer and autumn top growth possible. Paris green and air-slacked lime plentifully dusted on, in the early morning while it is still and the tops are damp with dew, is a good remedy. Bordeaux mixture and arsenate of lead is still better and it adheres to the plants, with greater tenacity than any known remedy. They should be gotten rid of at some rate as their onslaught will surely impair the vigor of the roots with the certain result of detriment to next year's crop. Many authorities say, ' 'Cut the tops in late autumn." I prefer to do this before the seed is matured for I never could see the sense of taxing the roots to mature the seed only to be destroyed later on. It is said (and truly, we believe), that the most exhaustive effort of plant life is maturing the seed. So we think the wise thing to do is to mow the tops after the berries are all set, but before they mature, and thus avoid the unnecessary waste of vitality. Mow the tops when ready and when well dried, burn them on the bed. This will leave the ashes right where they will be helpful and also prevent any ripe seed from being scattered to grow up wild. If the ground is infested with weeds and grass a shallow plowing will be helpful and later on a heavy top dressing of manure should be given to afford winter protection and be plowed under in the

Wayne Co. J. E. Morse.

FIRE BLIGHT.

We have had many inquiries asking the trouble with pear and apple trees having portions thereof affected as if scorched by fire. "Twig blight," or "fire blight," are the names commonly given to this scourge. It is a bacterial disease and is spread by the bacteria of affected leaves or limbs being carried from place

Three general methods of treatment are recommended, namely, "choosing resistant varieties, keeping the trees growing healthy (not too slow nor too fast), and cutting out and burning the affected parts. Spraying will not reach the dis-Too rapid growth of the trees while this work is going on, wherever permits the germs to get a hold since possible without interference to other the new parts are not so firm as on wood more slowly grown; and, on the other hand, trees lacking in vigor are equally susceptible to attacks. An even healthy growth is, therefore, desired. The susceptibility of varieties varies in different localities. Study the work of the disease around you and choose, other factors being even, those kinds that resist attacks, if you intend to set out a new apple or pear orchard and have apprehension as to the trouble the disease might give you.

entire season. The weeds and grass Holds a Big Load Safely, Easily and Without Bruisingand Won't Break Your Back



If you have never used the True Temper Vegetable Scoop Fork you don't as yet know how much backache, time and labor can be saved in handling your crop. It's a tool that means money to YOU. It is made with flat, blunt ends so that it handles vegetables and fruits without bruising them. It handles corn without the points sticking into the cob. When it picks up a load it screens out all dirt or snow—think of this convenience, especially in handling corn that has a fall of snow on top of it.

The scoop shape of this Fork holds a large load and carries it safely and easily. You can handle a large load in the Vegetable Scoop Fork with less labor and backache than you can a small load on a shovel, wooden scoop, wire scoop or any other fork made. The perfect balanced "hang" is responsible for this. Besides its profitable use for handling vegetables and fruits, you will find it the most useful Fork on your farm for dozens of other purposes, such as handling lime and coal, gathering stones in the field, cleaning up the barn yard, etc., etc.

The True Temper Vegetable Scoop Fork

comes in eight tine size for scooping into barrels or sacks and in ten tine size for general use; also in twelve tines for special work. It is highest quality throughout—a tool that will last a life time—one you can be proud of. It bears the True Temper trade mark—the sign of tested and approved quality, placed there by the largest makers of farm and garden hand tools in the world.

If you don't find the True Temper Vegetable Scoop Fork at any of your dealers, write us direct. We will make it our business to see you are supplied with the genuine.



The 31 Year Old

Free From Cog Gears-Direct Chain Drive-Light Draft-Choice of Everybody Who Really Knows Manure Spreaders.

Why experiment! The Success is in use at nearly all Agricultural Colleges and U. S. Experimental Farms. It makes you sure of right work and right working. Parts simple—everything direct—free from breakage—long lived. A generation of experience in it—it has been the leader from the first, Distinguished features made exclusive through patents.





One man with a Louden Litter Carrier on Louden overhead steel track system can clean the barns in half the time that two men would take without it. That's Louden economy. On every up-to-date farm—your farm—the Louden Litter Carrier and steel track system will earn its cost many times a year. Track can be bracketed to barn wall—out one door—in at other, and in this way no switch is needed. Manure loaded direct on wagon or spreader—its full fertilizing value thus saved. **Louden Litter Carriers** are made of heavy galvanized steel—wear for years; have improved worm gear—I pound on chain lifts 40 pounds in box; box stands at any elevation—raised or lowered any distance up to 25 fect; have many special advantages not found in other makes. Send today for valuable free book on manure uses, and catalog of hay and litter carriers, sanitary steel stalls, cow stanchious, etc., for modern barns.

Louden Machinery Co., 603 Broadway, Fairfield, Iowa

We will give \$100.00 for the 5 best ears of seed corn sent us before Nov. 1st, 1909 by users of THE APPLETON MANURE SPREADER



bought in 1909. Write today for full particulars, and ask for our FREE SPREADER BOOK, which proves that the Appleton Manure Spreader is as strong as steel and oak can make so simple that any boy who can drive a team can run it as well as any man: and so effective in operation that it never bunches the manure, but pulverizes thoroughly and distributes evenly from the beginning to the end of the load.

APPLETON MF'G. CO. 20 Fargo St.

The Potato Digger 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 973 Elm Street, Prairie City, Ia., U.S.A.

When writing to Advertisers mention the Michigan Farmer.

GRANGE

terizes good farming as great business enterprises is the type of managing men that has been developed-men who study and practice the art of planning things, laying out work, often for others, and bringing results to pass by carefully pav-ing the way for them. The need is for men of ability and capacity. Carnegie once said, "The industrial world is on the hunt for men who can take responsibility and shoulder it and call for more." Systematization is the present watchword of business.

Creek, Sugartown and Chesterfield-all located in the southwestern part of Lenawee county, joined in a picnic meeting, Saturday, Aug. 7. Perfect weather, a Saturday, Aug. 7. Perfect weather, a good program of sports and an excellent literary and musical program completely filled the day and made it one that will long be remembered by the Patrons of that section.

A gome of baseball between Lime

A game of baseball between Lime

Creek and Sugartown was the first sport of the day, which resulted in a score of 17 to 12 in favor of Lime Creek. Two other diversions were a nail-driving contest and a wheelbarrow race.

After enjoying an old-fashioned picnic dinner beneath the tents and trees, the crowd assembled and, before beginning the literary program, committees were appointed to arrange for a similar gathering next year. Then followed a number of recitations, essays and musical

numbers which prepared the audience for the solid talk to come from State Master Hull.

GRANGE

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

THE AUGUST PROGRAMS.

Second Meeting—Ceres Day Program.
(Prepared by Mrs. A. J. Kellog, Ceres of Michigan State Grange.)

"Nothing succeeds as well as success."

Knowledge is power" in its attainment. Music. "Prepared for the Barvas duestion, "Tow can we aid our Ladles' Court in its work?" (With the response each member is asked to hand Ceres a bouquet of grains or grasses to contribute to the Court decorations.)

Paper, "Domestic Science in the Home Necessary to a Harvest of Health."

Music, "Where there's a will there's a Way," or "Higher Education Toward the Farm for Our Best Harvest—the Boys and Girls."

Recitation, "The Barefoot Boy" (by J. G. Whittier).

Music, "Where there's a will there's a Way," or "Higher Education Toward the Farm for Our Best Harvest—the Boys and Girls."

Recitation, "The Barefoot Boy" (by J. G. Whittier).

Music, "The West Harvest—the Boys and Girls."

Recitation, "The Barefoot Boy" (by J. G. Whittier).

Music, "Where there's a will there in the state of All."

PROGRESSIVE GRANGE METHODS.

One beauty of the Grange is that it originated among men and women from the farm, directly interested in agriculture. It was not folsted upon farmers by others. It has always shown its adaptability. It fits the calling of its members as a glove the hand. Therefore no better illustration of what is meanthy progressive Grange methods can be found than is shown by the progress of here illustration of what is meanthy progressive Grange methods can be found than is shown by the progress of the state of the s

Eight out of ten successful business

Eight out of ten successful business men were brot up on the farm, and it it acknowledged that the ranks of business men must be continually repleted with boys from the farm.

The speaker closed his address with an appeal to those outside of the Grange to come inside and belong to an organization that would make them better and help educate their children. He would have them join and move shoulder to shoulder in a cause that is worthy of their support.

ALGER AND DICKINSON ENTER LIST OF GRANGE COUNTIES.

OF GRANGE COUNTIES.

Systematization is the present watchward of business.

Every word is true of the agricultural world. Success comes with study of conditions and systematic preparations to make the most of them along already established lines. Progressive agricultural and progressive Grange work should go hand in hand. Both are dependent on brains for motive—not the brains that are looking for novel conditions nor for freak adventures, but the ability to make a thing grow in seemingly unpropitious conditions if need be.

It must now be apparent that the idea to be conveyed by the term "progressive Grange methods is one of more intensive culture, rather than of more extended Grange exertion. The virgin soil that at first produced huge crops must needs be maintained by systematic means in order that the later products shall not be scant in yield or poor in quality.

It is because this fact of common experience in practical agriculture is lost sight of in practical Grange work that the life of so many Granges waxes and wains, with a decided tendency to wain rather more than to wax. Grange soil must be maintained by a well balanced rotation of Grange crops.

JENNIE BUELL.

LENAWEE PATRONS ENJOY PICNIC.

Five Granges—Morenci, Medina, Lime Creek, Sugartown and Chesterfield—all ricks of the products was considered and chesterfield—all ricks of the products of the product of the prod

COMING EVENTS.

Pomona Meetings.

Picnics and Rallies.

FARMERS' CLUBS

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

Associational Motto.-

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

Associational Sentiment.-

The farmer; he garners from the seil the primal wealth of nations.

PLANNING FOR THE ACTIVE CLUB SEASON.

While a majority of the clubs in the state hold monthly meetings thruout the year, quite a number do not, and in a majority of those that do hold monthly meetings the summer season is not one in which the most active work can be accomplished by the organization. Most of the special features of this work must be reserved for the fall and winter-months, but much of the planning for that special work can and should be done before the season of really active club work arrives. It is not too early to begin making plans for these special features which add so much to the interest of the club members and the promotion of club extension thru the participation of those not now identified with the organization in the enjoyment and benefit of such special feature work.

In laying the plans for the active club season, one feature which should not be

which necesitates more intense cultivation of the remaining tillable lands.

The Farmers' Clubs and Legislation.—
"Did the Grange and Farmers' Club Resolution Have Any Effect on the Past Legislature? If not, why?" was discussed by A. B. Cook, who was firmly of the opinion that the resolutions and petitions that were sent to legislators during his term did not have the effect they ought.

Mr. Cook believes that a private letter sent directly to your legislator has a much greater influence than a resolution or petition.

greater influence than a resolution or petition.

Debate.—"Resolved, That the Agricultural Vocation Offers Superior Inducements to the Young Man of Today." Affirmative, Harold Richardson; negative, Theron Gladden. Mr. Richardson upheld that agriculture offered honorable, independent and profitable vocation to any young man who would devote business tact to managing the soil. Mr. Gladden believes that the city offers better wages and less working hours. A. L. Chandler opened the discussion and urged young men to go slow in hurrying into the city, as the one mile man never achieved great success where competition was close.

Home Attraction.—"What May Be Considered Attractions in the Home" was the subject of an excellent paper presented by Mrs. Julia, Moore. It is difficult to answer this question, thot Mrs. Moore, because what attracts one person does not another. Neat, tidy surrounding, always attract attention and add much to the appearance of country homes. Plenty of good reading material in the home is excellent.

The Value and Need of Humus.—Prof.

Plenty of good reading material in the home is excellent.

The Value and Need of Humus.—Prof. A. J. Cook, of Claremont College, California, was present and gave a very interesting talk on the subject of humus in the soil. Professor Cook fells that farmers do not nearly appreciate the great importance of plenty of humus in their soils. Humus gives life and vitality to the land; conserves moisture and assists tillage. Farmer's should apply more manure and plow under green crops to feed the soil and to increase bacterial action.

in the enjoyment and benefit of such special feature work.

In laying the plans for the active clus season, one feature which should not be overtooked is an appropriate observance of Memory Day. Such a move on the part of every club in the state would be particularly fitting and appropriate, observance of Memory lifting and appropriate, observance of Memory lifting and appropriate, observance of Memory lifting and appropriate, observance of the part of every club in the state would be particularly fitting and appropriate, observance of the property of the membership of every club popertunity to glean valuable suggestions from the eating, and not in the contemplation thereof.

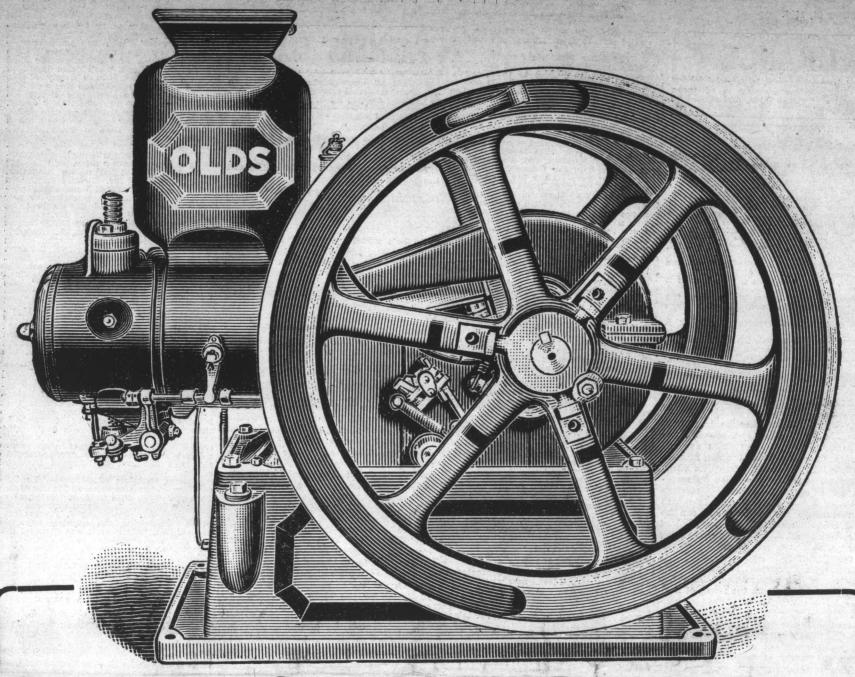
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These lines of feature work are mentioned at this time for the reason that the season is close at hand when they should be planned for if they are to hand and the proof of the pudding is in the eating, and not in the contemplation thereof.

These lines of feature work are mentioned at this time for the reason that the season is close at hand when they should be planned for if they are to hand a property of the prop

several other clubs present and guests of to order promptly by President E. N. Waugh. The club voted to give \$10 to- Ward the support of the McCurdy park. Several committees report on business of club interest. Election of officers resulted as follows: President, Clayton Cook; vice-president, Leo C. Reynolds; secretary, Mrs. Burl Hardy; treasurer, Fred Richardson.

Lessons in Agriculture.—"Lessons from the Old Country Agriculture" was spoken on by P. B. Reynolds, who thot we could learn a great deal in the way of handling live-stock and improving our soils from the states. Our improved Berk-could not fight the wild dogs away from their little pigs. Take Tamworths, crossed on native stock, could fight away secretary. In England the land is heavily stocked and all the farm products are converted into finished meats and the manure returned to the soil. A great this account the polled Angus imported by the government were of no use,



Send for Our New Catalogue. Do Not Think of Buying a Gasoline Engine Without It.

The things that should decide you in selecting the right engine are: what will it cost to run the engine—(1) how much gasoline does it use; (2) how many parts are there to get out of order; (3) what will the repairs cost; (4) will the mixer always work; (5) will the gasoline pump get out of order; (6) if water is left in the engine and it freezes, what will have to be replaced; (7) if it is guaranteed, what is the guarantee worth.

is the most economical engine to run.

right mixture of gas and air all the time.

(2) it is the simplest because it has no small delicate parts to get out of adjustment.

(3) You are guaranteed against buying any repairs for one year because we make the following

We agree to replace, free of charge any part of an Olds Engine that breaks or becomes worn, FROM ANY CAUSE WHATSOEVER, within one year from date of shipment, provided the replacement is one you think should be borne by the manufacturer. YOU ARE TO BE THE ONLY JUDGE. There is to be no argument, no delay in returning old parts and getting new ones, you decide and I abide by your decision.

year when 99 per cent. of your troubles would

(4) The Seager mixer has no moving parts once adjusted it is adjusted for a lifetime.

(5) The Olds Type A Engine has no gasoline pump. The piston sucks the gasoline into the mixer automatically,

(6) The Olds water jacket is a separate casting. In case of freezing this part alone can be replaced at slight expense, instead of having to buy a whole engine bed and cylinder.

(7) A guarantee is limited by the financial responsibility of the concern making it. Ask your banker whether we are good for what we say.

There are cheaper engines made that are painted just as THE OLDS ENGINE There are cheaper engines made that are painted just as prettily as ours, and their catalogues contain many tempting claims, and make many attractive promises; but in spite of all that has been claimed and promised about other gasoline en-(1) the gasoline cost is very low because the gines selling at all kinds of prices, we have been making new Seager mixer automatically makes exactly the steadily for 30 years an engine that has become the standard of the world.

> An engine that is as finely built as the Olds, that has Olds quality of material and workmanship, backed by our kind of a guarantee, or with a record of so many thousands of satisfied customers, could not be successfully sold for any less than our price.

The United States Government uses them in its military posts, government work of spraying and irrigating, because the Olds Engines have stood the most severe tests they could put them to.

Every farmer who requires an engine can afford an Olds Engine. It does not pay to buy a cheap machine of any kind, and the price you pay for an Olds is only a slight per cent over what it costs us to build them right. We make so many in a year we can afford to have our percentage of profit small. This makes a big possible saving to you the first You are really getting an engine of the very highest possible quality at the right price. In fact you get all of your money's worth-one hundred cents worth for every dollar.

Our catalogue mailed you free tells you just what you should know about an engine. Write for it today before you

Write me personally telling me what you want the engine to do, and you will get a personal letter from me that will give you the facts you want. To save time you can write to my nearest representative.

J. B. SEAGER, Gen. Mgr, Seager Engine Works

Formerly Olds Gas Power Co. Main Office and Factory, 915 Seager Street LANSING, MICHIGAN

Every man has a hobby. Mine is building engines that are so good the user will want his neighbor to have one. I insist on every Olds Engine becoming an Olds salesman.

Anybody can paint a cheap engine to look good; I never built cheap goods and never will. When I took hold of this business my task was easy because I did not have to start a new concern. It had already gone through over twenty years of success. The Olds Engine was a magnificent engine, but now it is 100 per cent better than ever before-better material; better mixer; no gasoline terial; better mixer; no gasoline jump spark ignition-five parts only. all of which are stationary-instead of thirty moving parts as in the old style igniters; removable valves; simplicity; three separate inspections; economy and certainty of operation.

Everyone will be satisfied with an Olds Engine—he cannot help it. I care more for having a pleased Olds user than I do to sell a large number of engines. Every user of an Olds Engine must be satisfied-I will not have any other kind of a customer.

I guarantee every Olds Engine to be in perfect running order when it leaves the factory. I know the engine you get is all right, and that the high Olds standard is maintained. It is the best you can buy, whether you pay more or less than the Olds price.

J. B. SEAGER, Gen. Mgr.

OLDS GAS POWER COMPANY BRANCHES

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BINGHAMTON, N. Y.,—R. H. Deyo & Co...
Washington St. PHILADELPHIA-Mallalieu & Conrey. . Market St.

KANSAS CITY-Freeman Field W. 11th St. OMAHA, NEB.-W. S. Weaver Farnum St. MINNEAPOLIS-E. S. Wood......So. Third St.