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FARM NOTES.

Cover Crops for Alfalfa.

I have read a great deal in your valuable paper about alfalfa and with many others I would like a little advice. I sowed four acres on the first day of September, 1910. I sowed with it one bushel of rye per acre as a cover crop. I have a fair stand of alfalfa and good prospects for a good crop of rye. Would you advise me to cut the rye when it is coming in head or would it hurt the alfalfa to let it get ripe. Is green rye any good for hay? In the little experience I have had the stock will scarcely eat it before it is cut and I don't think it would make very good hay. If the rye was mowed down and left on the ground would it benefit the alfalfa? The ground or seed has not been inoculated. The soil is quite high and runs from gravelly loam to sand.

Sanilac Co.

D. W. W.

In the writer's opinion it would be very much the better plan to cut this rye for hay when it is coming into head than to let it ripen a grain crop. This would be especially true if the alfalfa is a fairly good stand, and if the bacteria necessary to its success is present in the soil. This can be ascertained by digging up some of the thrifty looking plants after they have attained a little more growth and examining the roots for the alfalfa nodules. In case the nodules are developing, if the rye is cut before it begins to draw heavily on the soil for moisture, the alfalfa should come on and give at least one cutting later in the season that would be of greater value than the crop of rye which might be harvested from the field if the rye were left to mature.

On the other hand, if the rye were left to mature, it would draw heavily on the soil moisture during the process of ripening, and the chances are that the stand of alfalfa would be less perfect than if the crop were mowed as suggested. Some of the best authorities on alfalfa culture in the country recommend the use of a grain crop as a nurse crop for the seeding of alfalfa, but all of them advise the cutting of the grain crop for hay, so as to give the alfalfa the best possible chance. Of course, it is true that under favorable conditions good seedings of alfalfa have been secured with grain crops, even with oats sown in the spring and harvested for a grain crop. But one cannot tell that the conditions will prove to be favorable, and if they should not the grain crop would undoubtedly prove a handicap for the alfalfa and the alfalfa plants will not attain the development nor make the stand that they would have done had they not been compelled to compete with the more vigorous plants for the moisture and plant food required to give them a good start. Nor can there be any question that a good even stand of alfalfa will prove a much more profitable investment than a crop of rye, if both cannot be secured the same season. It may be possible, and it is far from unlikely, that when we once get alfalfa established on our farms and our soils well inoculated with the bacteria peculiar to and necessary for the success of the alfalfa crop we will be able to seed it in the same manner that we now seed clover and with equal prospects of success. But the getting of a seeding of clover in a grain crop is an uncertain proposition upon many if not most farms, especially if the conditions are at all unfavorable, and with our present knowledge of the crop and condition of our soils, alfalfa appears to be still more uncertain, so that it will pay in every case to give it the best possible chance in order that we may get it established on our farms.

Of course, if you do not find that the bacteria is present in the soil and that its presence is evidenced by the formation of the nodules on the roots, it might

pay better to let the rye mature and cut it for a grain crop, as in this event the alfalfa seeding will not prove a success so far as the production of hay is concerned, until the soil becomes inoculated in a natural way by the spreading of the inoculation from scattered plants, which are generally inoculated in most fields. This condition has an important bearing on the proposition, and an effort should be made to ascertain whether any considerable number of plants are commencing to develop the nodules or not.

will not occur to any considerable extent, and if the alfalfa is inoculated to a degree which will insure that it will thrive after the rye is removed, this plan would seem to afford the greatest advantage from any standpoint.

Subduing Quack Grass.

Please answer me through your paper, the best way to get rid of quack grass. I have a 10-acre lot that I am plowing for corn, that is nearly all covered with it.

READER.

While it is a difficult proposition to eradicate quack grass in a corn field it

above the surface between the rows. Then frequent hand hoeing to keep it from developing in the hills will be necessary if the grass is to be eradicated. If the job is done thoroughly enough to prevent the grass from making any development above ground it must die, as leaves are just as necessary to the life of any plant as are roots.

While the eradication of quack grass from a corn field will entail considerable expense, as noted above, yet this expense should not all be charged to the corn crop. It will add to the value of the field not a little to have the grass killed out and will cheapen the cost of tilling future crops as well as increase their yield. There are, however, cheaper methods of killing out the grass. It can be more cheaply accomplished by summer fallowing, or by planting of a root crop that must be thinned and hoed anyhow, so that the expense of this item of labor may be reduced. Then some such crops have a shorter growing season than the corn crop, and this expensive work will not have to be continued for so long a period. However, it should be remembered that quack grass or any other similar pest can be better exterminated during the best growing period of the season than at any other time, since, when the weather is dry the root stocks can lie dormant in the soil for a much longer time and still grow when favorable weather conditions come than would be possible under more favorable conditions. But he who would conquer these pests must be up and doing at all times, and do the work with great thoroughness, else the extra labor put forth in the effort will be a loss, since if any considerable amount of the grass is left living it will soon spread again and be as thick as ever.

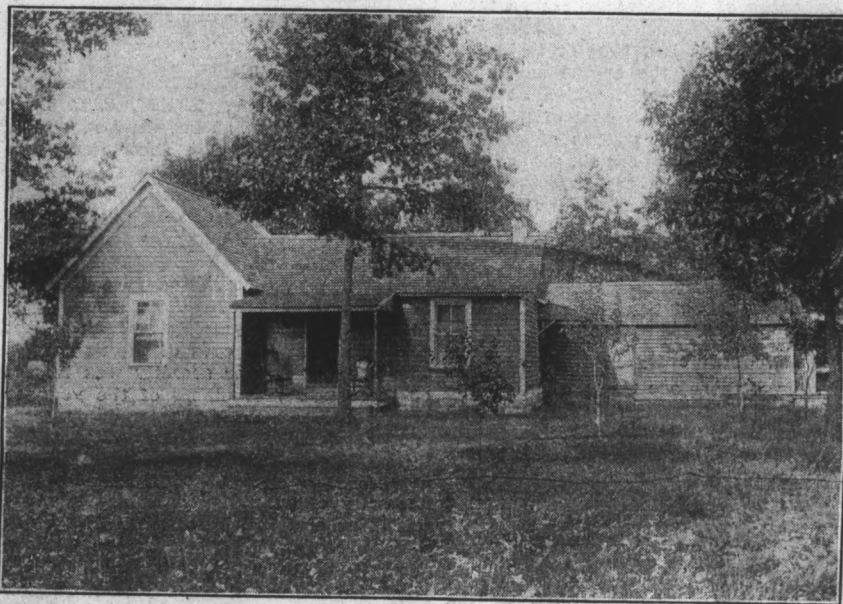
Some Alfalfa Questions.

I sowed a small piece of alfalfa some time ago. It was rather slow getting started but is doing well now. I cut it three times last year and got a good bunch of hay from it each time. I mixed some of it with other hay and fed it to the horses and they seemed to prefer the alfalfa as they picked it out and ate it first, but I have been told since that it was injurious to horses. Can you tell me if this is so? I did not feed enough to find out. I was told lately that it was too rich to be fed to cows more than once a day. Is this true? I would also like to ask if alfalfa roots are apt to fill up tile and stop their usefulness? I have a field that I would like to sow to alfalfa when I seed it down again. It is all sand but there are low places in it that need tiling. Would it be practicable to tile this field and then sow it to alfalfa?

Lenawee Co.

L. Y.

It is true that some who have fed alfalfa hay to horses have noted injurious results from its use. This injury has consisted of a stimulation of the action of the kidneys and the producing of a soft condition of the animal. It is, however, asserted by the best authorities on the subject that such results have been due to the injudicious feeding of the horses, rather than to the character of the hay, and experience seems to bear out that theory. It must be remembered that alfalfa hay is very rich in protein, nearly as rich as bran, and that horses are very fond of the hay, as noted by this inquirer. When they are fed all the alfalfa hay they will consume, especially if they are standing idle in the barn for all or a portion of the time, and when the grain ration is continued in the same quality and amount as when other hay is fed, the sudden and extreme change in the balance of the ration causes the stimulation of the kidneys above referred to, which is simply nature's method of getting rid of the excess of protein in the ration. It is also possible that if this method of feeding were kept up for a considerable time, especially if the horses



A Modest but Attractive Farm Home, Residence of E. S. Shaner, of Muskegon Co.

In making examinations care should be taken in digging the plants and in removing the dirt from the roots in order that the nodules may not be stripped off if they are present.

While the rye plant does not make the best of hay and no stock likes it as well as they do hay made from clover or the other grasses, it has considerable feeding value if cut at the right time. In the writer's opinion it would be better to remove the crop from the ground than to

can be done. But to insure success in this undertaking, the culture must be very thorough indeed. The greatest difficulty to be encountered is to keep the grass in subjection until the corn gets of sufficient size to cultivate. This will require very thorough preparation of the soil. Simply harrowing with a spring or spike tooth harrow will not be sufficient. The ground should be thoroughly disked after deep plowing and the corn should not be planted too early. If the grass is



Third Cutting of Alfalfa in 1910 on the Farm of Geo. C. Nichols, of Ottawa Co.

clip it and leave it on the ground, for the reason that if the alfalfa came on and made a crop worth cutting later in the season, this old straw would have become worthless rubbish and would be raked up in the hay. Then, if the clipping were done too early there would be a considerable second growth of the rye. But if cut when it is beginning to head this

well subdued and the corn is not planted until the weather is sufficiently warm to insure the quick germination and rapid growth of the corn plants, much will be gained. Then the cultivation should be thorough and frequent. A broad shoveled cultivator should be used, or better still, one fitted with thistle sweeps, so as to keep the grass from developing leaves

were maintained in idleness, serious results might follow which would impair the digestion and general health of the animal.

But that with intelligent feeding alfalfa hay is a most healthful and economic forage for horses is proven by the experience of many. In his book, "Alfalfa in America," Joseph E. Wing gives his personal experience in the feeding of alfalfa hay to horses, which covers a period of nearly 25 years. He states that his horses get no other hay, and that since feeding alfalfa hay exclusively he has not had a single case of heaves and very little trouble with colic, that bane of horse owners. Apparently all that is needed to make alfalfa hay both a safe and eminently satisfactory roughage for horses is to feed it with a sparing hand, especially when the horses are idle, and to so adjust the grain ration that only the needed amount of protein will be provided in the combination. This should be done as a matter of good economy as well as for the health of the horses. Less grain will be needed where alfalfa hay is fed than where mixed hay or timothy hay is used, and with ordinary care in feeding it is comparatively certain from the testimony of Mr. Wing and others that any undesirable symptoms following its use will be of short duration, these symptoms being due more to the change in than the character of the feed. As a feed for colts and growing horses it is considered exceedingly valuable, since a greater growth can be secured than by the use of any other forage.

Of course, alfalfa hay should be well made and well cured for horses, just as clover hay should be well made and well cured for similar use. It should be on the side of over-ripeness rather than too green when cut, although too much woody fiber is, of course, undesirable, and it ought to be well cured and put into the barn as dry as possible. If so cured it will not become musty, and is much cleaner than clover hay on account of the absence of the minute hairs which cover the clover stems.

Cows require a narrower ration than horses, and there is little danger of feeding too much protein. In fact, with ordinary feeds, it is necessary to supply a deficiency in this food element. The cow's stomach capacity is also much greater than that of the horse, and being a ruminant, mastication is usually much more complete and the digestive juices are better mixed with the food than is the case with the horse, for which reason the cow may be fed a much larger proportion of bulky feed than the horse, with perfect safety and good economy. We believe there is no danger in over-feeding a cow on alfalfa hay. In fact, in the west cattle are carried over winter and sometimes well fattened with no other feed than alfalfa hay. Alfalfa hay and corn silage makes the best possible combination of feeds for cows, and will reduce the necessary feed bill for supplementary feeds very materially, and thus add to the profit derived from the cows.

While the alfalfa roots may fill up a tile that is improperly laid, so that sags occur in the line of tile from which the water does not run out in a wet time, the roots will not prove troublesome where the tile is in proper working order. There are thousands of acres in alfalfa on tile drained land where there has been little or no trouble from this cause.

There is no doubt it would be practical to drain the field mentioned and sow to alfalfa. It should be remembered, however, that alfalfa requires a well drained soil. The permanent water level should not under any circumstances be nearer than three to three and one-half feet from the surface, and if it is twice that it would be all the better. However, if these wet places are not too large and if the tile can be laid at a good depth, alfalfa would probably do fairly well and would be well worth a trial. Some alsike clover might be seeded with it on the low places to insure a stand of grass for some time, if the alfalfa killed out on these spots.

THE GASOLINE ENGINE AS A SOURCE OF FARM POWER.

I note that "Farm Power and Transportation" is the special topic for May, and although I am not qualified to write fully on the subject, I wish to give our experience with the gasoline engine as a source of power on the farm, although as yet we have not brought it into use in nearly as many ways as it can be used or as we intend to use it in time.

The engine in question is an upright cylinder three horsepower gasoline en-

gine, purchased primarily for use in spraying. It is mounted upon a frame, together with the tank and pump, which is mounted on an ordinary wide-tired farm wagon. A detachable tower with two platforms enables the operator to reach the tops of quite high trees, and incidentally covers the engine and pump. The lower part of this frame is enclosed with light siding, thus protecting the engine. For this purpose the engine saves the time of four men, as I will explain. Formerly we needed three men to spray, one to pump and two to hold the rods. It was hard work for the pumper to keep up a pressure of 150 pounds with two lines of hose and nozzles of good capacity, and it was necessary to "change work" often with the men at the rods. Four hundred gallons of spray applied was a good day's work for three men, and the pressure was often too low and uneven for good work. Now, with the gasoline engine, power pump, 200-gallon tank, and tank filler, two men will put on from 1,000 to 1,200 gallons per day at a uniform pressure of 175 to 200 pounds. It will be noted that we now use two men where we formerly used three, and that these two men will do from two to three times as much as the three men did with the hand pump and do it better and much more easily; which means that two men now do in one day what three men with a hand pump would require from two to three days to do, which means a saving in labor of from four to six men daily, viewed from one point, and from another a shortening of the spraying season from one-half to two-thirds, thus enabling one to do the work in less time or to handle more orchards. If the engine saves the time of four men daily, which at \$1.75 per day means \$7, at a cost of 15 cents for one and one-half gallons of gasoline and perhaps five cents for oil, this means, deducting interest on the investment or depreciation of the machine or repairs, a saving of \$6.80 per day during the spraying season, which with us is about five weeks of steady work, which would mean a saving of \$234.80 during the season. This amount would certainly pay for interest, depreciation, and repairs, or buy a new outfit every year.

Of course, there are times when an engine bothers somewhat, but when one gets used to them he can generally locate the trouble quickly and set it right. There are comparatively few parts to an engine, so they are not complicated and hard to understand, as many suppose. When trouble arises it is generally some simple thing, such as run down cells, loose connections, inefficient gasoline supply, or a slight misadjustment of the spark.

The next work that the engine was taught to do was to take the place of the buck saw and cross-cut at the wood pile. We are working up our old rail fences, and have a good many limbs from old apple trees that are being pruned or removed. The rails and limbs up to about eight inches are hauled to the yard and piled up until spare time when the buzz saw is brought out and staked down, the belt (an old discarded threshing belt) is put on, the engine on the spray wagon run out and drawn ahead until the belt is tight, when the wheels are blocked and we are ready to "saw wood." We have an 18-inch saw, but if getting another would get not less than 20 inches, possibly 24. It will pull a little harder but the added speed will help to overcome it. We first used the engine with the six-inch pulley which ran the sprayer, and speeded it up as much as possible, but the motion was not fast enough for the larger poles, so we put a 12-inch pulley on the opposite end of the shaft which works more satisfactorily. One can cut rails and small poles as rapidly as with a large outfit, and if careful in feeding the larger ones, poles as large as the saw will cut can be sawed.

Another use we have recently made of this engine is to run a ripping saw to rip boards for stripping up horse stalls. When we purchased the buzz saw we also bought a ripping table and small rip saw attachment at a slight additional cost. The ripping table is fastened to the saw frame with three bolts and it is ready for work. We could rip up a small load of lumber almost as quickly as it could be loaded to take to the mill.

Another use to which we contemplate putting the engine in the future is to run a line shaft which we intend putting into our fruit house where the spray wagon will stand. To this can be belted an emery wheel, feed grinder, or any other light-running machines we may wish to install. It is also possible that in the "dim, misty future" we will use an engine to pump water from the creek which

runs through the place for irrigation on a small scale for fruit. I am aware that many irrigation systems have been failures and we do not intend to install any expensive system, but may try out the overhead system on a small scale, either in connection with the village waterworks which are within reach, or with the engine and pump. A small rotary pump placed on our spray wagon will fill a 200-gallon tank in six minutes, and the engine would easily run one much larger than this.

But what our readers wish to know is not the visionary "what we hope to do," but the real "what we have done," so I will leave the subject for those who have had a more extensive experience with gasoline engines as farm power.

Calhoun Co. S. B. HARTMAN.

THE RETIRED FARMER.—III.

A paradox is something true, but nevertheless unusual. A retired farmer who is retiring is somewhat of a paradox, but he has been found in one of the northern counties of this state. The drudgery of other business, such as the details, are as early as possible passed over to trustworthy men, and why not with farming? Chas. A. Dana said: "The indispensable man had not yet been born; when Moses died the Lord raised up Joshua and I believe this will always be the arrangement." The farmer who never gives nor never receives instructions, who is tenacious of his opinions and authority is not well suited to this method of withdrawal. Farmer No. 3, who retired in this manner began by schooling a son in the work of a live stock breeder, particularly of dairy cattle. The M. A. C. short course, attendance at breeders' meetings, the International stock show and farm papers were the courses in this school. This preparation was much as Carnegie directed the training of men like Schwab, Corey and Gayley, and was looked upon as an investment.

This son was permitted to indulge in sundry new fangled book notions of farming, which were passing strange if not scandalous, in the eyes of the neighbors. The retiring farmer secretly was fearful of these new movements of the younger man which, on the whole, were successful. He justified himself in a measure, by paying tribute to the young man's skill, saying that he had foreseen the necessity of adapting conditions to modern ideas and had acted accordingly. In a neat, modern house, adequate without parsimony, he devoted himself to the pastimes of bees and fancy poultry. He also indulged himself in weather observations, recording the barometric pressure, temperature and rainfall. The relation between father and son was not unlike that of junior and senior partners, with the active management lodged in the hands of the junior member. During the periods of absence of the son the father acted as manager, a temporary pleasure but a service that he recognized was wearing, and as gladly relinquished when the son returned.

In describing this method of retiring my informant said he might have gone to the city or village, but the cost of living was higher. He would have been a sort of an exiled Crusoe, with no man Friday and amid many savages, wanting not him but his income. However, above all things, he did not break off from the business of life he had followed, but gave his attention to the occupation largely freed from petty cares. He thought at least he had the good sense to recognize that the plans of others should have opportunity to mature, and his attitude was to co-operate, rather than dictate. The cycle of life, he said, was represented by the vehicles used at different ages. All small boys must, and usually have, a little wagon; as young men it is a carriage, later a family surrey and finally the old man uses a one-horse wagon to truck around with. For the retiring farmer to be denied the one-horse wagon is just as much of a hardship as it is to the small boy to be denied a little red wagon, for it is the last vehicle in the procession of activities.

Shiawassee Co. JAS. N. McBRIDE.

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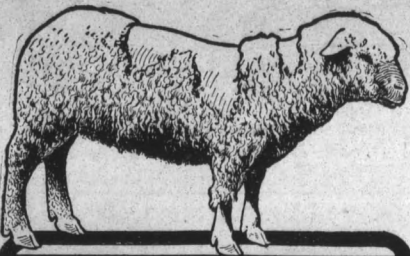
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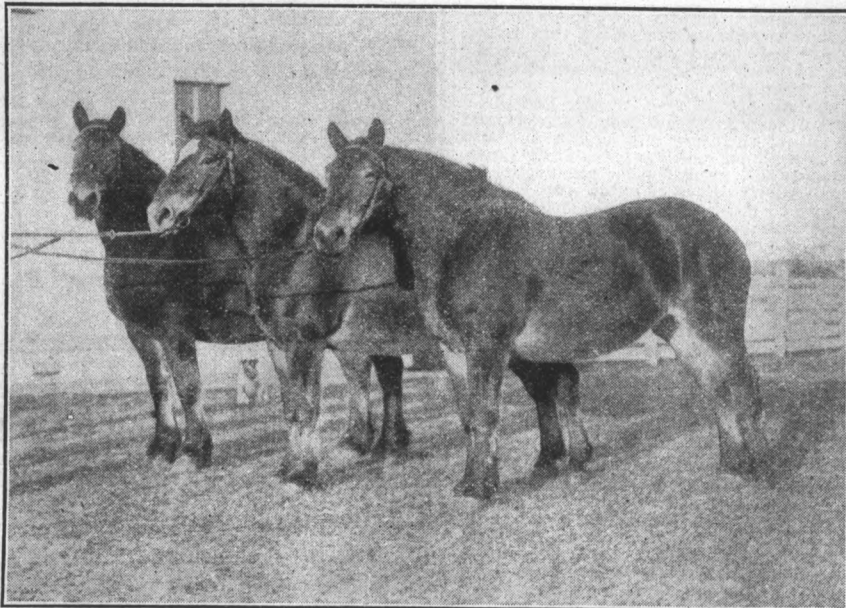
LIVE STOCK

PURE-BRED DRAFTERS FOR THE
FARMER.

We can talk all we please but the
big horse has come to stay. There is no
doubt as to the fact that small animals
are to a certain extent desirable on the
smaller farms; but on the average place
it takes the big horse to fill the bill. Of
light horses it is an easy matter to find
many which can be had at a fairly rea-
sonable figure. When you come to heavy
ones, it becomes a different proposition.
The market and the farms are crying
for more of them and they want them
of better quality than ever before. They
say that two-thirds of the stallions now
in the country are not fit to stand in the
stud. Some of these days the farmer
will rise up and this two-thirds will have
to be replaced by animals of a different
stamp and where are they going to come

for turn whichever way he could—selling
corn or raising pork—lower prices con-
fronted him.

With the facts in mind, it is very evi-
dent that in order to secure paying prof-
its, the cost of production must be dimin-
ished. With corn at fifty cents per bush-
el it costs a farmer as much to raise the
crop as when it is worth seventy-five
cents a bushel. When pork hogs are
selling at five dollars per hundred it re-
quires as much effort to raise and feed
his "crop of hogs" as when they are
selling at ten dollars per hundred. With
lower prices before him, which seems
must be inevitable for a time, it seems
that in order to secure reasonable profits,
economical methods of feeding and man-
aging, should be studied and adopted. In-
stead of saying that "hogs will pay well
part of the time, and at other times one
is sure to lose money by them," it seems
as though it would be wiser to adopt
means by which the cost of production
can be reduced. It may be well to repeat
some things we have learned by experi-
ence, and fix them in mind, in order to



The Colts Produced and Work Secured from Such Mares as These Give Big
Dividends.

from? The east, the south and the west
are all calling for them and they are
looking toward the central states for the
supply. Thus the breeder must have no
fear for an oversupply and a consequent
drop in price for many years.

The cost of raising the pure-bred colts
may be a little more because the average
breeder will give them better care, but
aside from that and the increased in-
terest on the price invested in the mares
there is no difference. If you fear that
a pair of pure-bred mares will not do as
much work as a pair of good geldings,
it is possible to use three mares. Thus
you are sure of three colts a year and
the three mares will do more work than
two geldings ever thought of doing.

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RAISING THE PIGS FOR PROFIT.

It is reasonable to believe that most
people who raise pigs on the farm, do it
because there is profit in the business.
Taking all the years together, the pigs
pay as much profit over and above the
cost of raising and fitting for market, as
any stock kept on the farm. There are
periods of good prices, and periods of
low prices with all kinds of stock. Some-
times it is an easy matter to get good
paying returns, and there are other times
when the best managers lose money.

During the years 1909 and 1910 prices
have ranged high for all classes of hogs,
being the highest since the war of the
rebellion, and the years immediately fol-
lowing it. Under most conditions one
could make good profits raising and sell-
ing pigs during those years. During 1907
to 1910 the prices for corn were high and
many farmers chose to sell corn to rais-
ing and selling pigs when danger from
disease confronted them, and the number
of hogs dropped off until in 1910 there
were in the country over three million
hogs less than the normal number. The
high prices for pigs that prevailed during
1909 and 1910 seemed to cause farmers
to turn their course toward raising and
selling pigs. The heavy crop of corn of
1910 was sufficient to enable speculators
to see the opportunity to withdraw from
the market and let the pork prices go
down. The prices went down faster than
the supply increased. But with the farm-
er the downward result seemed inevitable,

encourage those who may be on the anx-
ious seat, hesitating as to whether they
had better drop the hog raising business,
or proceed in a more careful manner
than has been necessary for the last
three years.

Some Things we Know.

First, we know that a reasonable num-
ber of pigs can be raised and sold from
the farm, and yield a good profit over
production, when hogs sell on foot for
four and five dollars per hundred because
there is a good deal of feed that would
be wasted if not for them to consume and
convert it into a marketable product. In
competition with other kinds of stock
kept on the farm, the pigs can eat the
various kinds of feeds that are produced
on the farm, and make as much profit
from them as can be secured at prevail-
ing prices from other kinds of stock. In
the second place, we know that the pigs
make quick returns, equaling the lambs,
and beating the calves a long way.

We also know that pigs allowed to feed
on grass and clover in summer make
gains cheaper than when fed exclusively
on grain feeds. In the absence of the
clover, rape makes a good substitute as
a green feed. There are elements in the
green feed that helps to build up a good,
strong frame, and the exercise in gath-
ering it, helps to develop muscle. By the
outdoor exercise the vital organs are kept
in a more active and healthy condition.
With good frames and large vital organs,
we have good animals with which to op-
erate and make good returns. With weak
frames, and low vitality, the animals are
not worth the effort to raise, for they
are not profitable meat producers.

Another fact should be kept in mind;
a variety of feeds will produce better re-
sults, at less cost, than any one feed.
When prices are high for pork, and corn
is plentiful, there seems to be a great
temptation to feed corn and make it the
main reliance in growing pigs, as well
as fitting for the market. By using oats,
barley, pea meal and middlings with the
corn meal, and feeding the mixture while
pigs are eating grass, clover or rape,
gains can be made much cheaper than by
corn alone. With the variety of feeds
the animal is developed more harmoni-
ously, bone, muscle, vital organs and adi-
pose membrane all being constructed at
same time, makes the gains in weight
cheaper, and meat of better quality, than

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when the frame is neglected by using only fattening feeds.

And still another fact should be kept in mind. The pigs make the gains cheaper when kept growing constantly than if allowed to progress slowly some of the time, and then try to hurry them along by more liberal feeding. When pigs are kept growing while young they make the gains cheaper than is possible to make them later in life. Light weight hogs sell at a higher price at all times of the year except during some portions of the packing season, than heavy hogs. Such is the case with both the bacon and the block hogs, which gives a good outlet for the young hogs without the expense and trouble of making a special effort to fatten for market.

Finally the man who can produce cheap feeds that will make pigs grow into hogs, is the man who stands a good chance for making profits even if the prices are seemingly low. The profits are represented by the difference in the cost of producing and the selling price. The present conditions are such as should stimulate an effort to make gains in weights as cheaply as possible. With a good degree of intelligent management in raising feeds, feeding and marketing the pigs, there are still possibilities for making good profits from the pigs on the farm.

Wayne Co.

N. A. CLAPP.

LIVE STOCK NOTES.

L. J. Schwabacher, of Chicago, has received several thousand letters from farmers in answer to questions sent them, and these reports show approximately 20 per cent more hogs for marketing than a year ago. These answers come from all parts of the corn belt, including Illinois, Tennessee, Kentucky, Minnesota, Oklahoma, Wisconsin, Ohio, South Dakota, Indiana, Iowa, Nebraska, Kansas and Missouri. Recent liberal supplies of hogs in western markets are sufficient evidence of the large numbers in the country, and their heavy weight shows that corn has been fed lavishly.

The luxuriant grass in most parts of the country furnishes choice pasturage. Dairy cows are furnishing liberal quantities of a rich milk, and the butter production has increased materially, the increase in the marketings of creamery butter having caused a recent decline in prices.

Sheepmen generally are liquidating their holdings, having no particular hope of seeing better times in the near future. The season has been an unprofitable one generally, especially to sheepmen who paid high prices at the start for feeders.

A few Oklahoma stockmen have been marketing prime hogs at Fort Worth, Texas, and a recent consignment from that new state averaged 285 lbs. and topped the market. They were a cross of Berkshires and Poland-Chinas, and the owner said he considered them the best breed for market purposes. The owner's method is to see that his hogs are the best to be had, and the best of care is given them, rations consisting of corn and alfalfa. He has had numerous orders for brood sows from Texas farmers.

A Kansas farmer and stockman who marketed 30 head of Shorthorn and Hereford beef cattle at Chicago recently, reported great success in feeding ear corn and alfalfa hay to his cattle, with oil meal for finishing off. The owner went to Kansas in 1882 and bought land for \$10 and acre that is now worth \$100 an acre. For the past 28 years he has fed cattle and hogs continuously, and has usually made it pay.

Large grazing areas in Texas have been greatly benefited by recent spring rains, and there is a luxuriant growth of grass, but unfortunately, there are no cattle in many sections. Cattle would be brought in from Mexico in considerable numbers, it is said, were it not for the requirements of the United States government. The government requires that a train load of cattle must be loaded three times and unloaded three times in coming from 100 miles west of the Rio Grande river to a point in Texas 100 miles east of it, in order that the stock may be well inspected.

Buyers of milkers and springers at the Chicago stock yards are more particular as to their purchases than ever before, and fancy prices are paid without hesitation for a prime cow, while merely good cows are passed by in many instances. Good grass is making a larger demand for cows that are first-class milkers, with forward springers the best sellers, while plain backward cows are going slowly at low prices, being sold frequently to killers. Dairies generally are weeding out their inferior and old cows that are past their usefulness, and it is difficult to meet the growing demand for first-class cows.

A good demand exists in the Chicago horse market for prime animals, and high prices are paid for such, the offerings being limited. Recently a team of prime heavy workers sold for \$800.

The Department of Agriculture at Washington is doing what it can to enmounts for the United States army, but main object being to obtain adequate mounts for the United States army, but the department believes that the improvement of the breeds of horses would prove of great benefit to the entire country. The difficulty encountered in obtaining 2,500 horses for the army arises from the gradual falling off in the breeding of riding horses during the last decade, resulting from the poor demand for that class of horses.

VETERINARY

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

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

Tongue Lolling.—I have a five-year-old horse that has acquired the habit of protruding tongue when bridled, caused, perhaps, by using too large a bit. Can this habit be overcome and if so, how? D. R. DeL., South Frankfort, Mich.—Most horses that protrude the tongue shift tongue on top of bit; now, in order to prevent this use a bit with spoon on it, or suspend bit to ridge of mouth by means of a nose piece on bridle and another very good plan is to use a crooked small bar bit, the crook shaped so as to leave room for tongue underneath; this sort of a bit is more comfortable than a straight bar. I have used these bits to good advantage in correcting this habit. Another very good plan is to oblige the horse to wear a bit while standing in stable when idle.

Luxation of Stifle—Chronic Cough.—I have a nine-months-old colt that sprained stifle joint, allowing cap to slip out and back into place, making a cracking noise. Our local Vet. prescribed a blister, which I applied with poor results; now he advises me to repeat the application. Would a good liniment not do as well? I also have a 14-year-old horse that is troubled with a cough and shows some symptoms of heaves. A. V. B., Deford, Mich.—Apply equal parts tincture cantharides, turpentine, aqua ammonia and olive oil to stifle occasionally and this will answer fully as well as an active blister. Give 1 dr. powdered opium, 1 dr. powdered lobelia and 2 drs. muric acid ammonia at a dose in feed two or three times a day. Feed no clover, musty or dusty, badly cured fodder of any kind. Grass and roots are good food for a horse of this kind.

Colt Has Peculiar Eyes.—I have a colt that foaled April 13. One of its eyes is colored white and the other has a dark ring, and I have thought that its sight was not very good. C. C. B., Coldwater, Mich.—Very little can be done that will change the eyes in color; however, if they are sore apply a saturated solution of boric acid three times a day.

Bone Abscess.—I have a four-year-old mare with a bunch on upper jaw, which has been growing slowly for the past six months and I would like to know how to treat it. Our local Vet. gave me a blister to apply and thought the bunch would break, at which time he would scrape out abscess, then it would heal. T. J. P., Merle Beach, Mich.—Apply tincture iodine to bunch once a day; when it breaks use one part tincture iodine and eight parts water to inside of abscess and it will perhaps get all right.

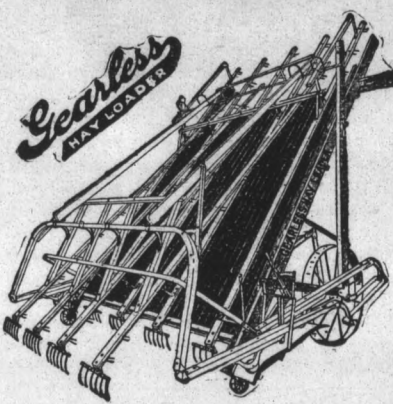
Founder.—I would like to know what founder is and how it affects a horse. I have an old mare that is foot sore and shows a great deal of soreness when traveling on a very hard road, but when traveling on soft footing she shows very little soreness or stiffness. Her chest seems to be falling in and I am told this is one of the symptoms of founder. C. P. S., Muskegon, Mich.—A founder horse, while traveling, keeps fore feet in advance of body, usually the heel of fore foot strike the ground first, the sole of foot is inclined to drop, the wall of foot showing rings or ridges and the feet are usually warmer than hind ones. The muscles of chest usually atrophy on account of the position the horse takes while standing, as they usually endeavor to shift additional weight on hind legs, relieving the fore quarters. By keeping the feet moist and cool, also applying light blisters or stimulating liniments to coronets and shoeing with a rolling-motion shoe, a founder horse is made more comfortable.

Muscular Trembling.—For the past two months the muscles of shoulder of my mare have trembled almost continually and as she is due to foal June 5th, I have not applied any strong liniments as a remedy, but would like to know how to treat her. S. A. H., Olivet, Mich.—Apply equal parts spirits of camphor and alcohol to shoulder muscles twice a day. The remedies that should be given will prove harmful to a mare as far along in pregnancy as she is and when warm weather comes she will perhaps get entirely well without internal remedies.

Dislocation of Patella.—I have a three-year-old colt that seems to be obliged to stop suddenly when traveling and in a minute or two recovers, only to have the same thing occur some time later. I first noticed this trouble last January then it returned a few days ago. Would like to know what it is and if it can be cured. J. A., Derwent, Ont.—Clip the hair off stifle joint and apply cerate of cantharides once a week or ten days and the colt will get all right. The stifle cap slips out of position and until it moves back into position the colt is unable to pull the leg up and forward. If light applications are made it will not be necessary to lose the use of your colt while being treated.

Bog Spavin—Thoroughpin—Grease Heel—Navel Infection.—I have a four-year-old colt that has been troubled with bog spavin and thoroughpin, which I have blistered with rather poor results. The blisters seem to act well, but produced a (Continued on page 567).

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CONDUCTED BY COLON C. LILLIE.

COWS ON A FOURTEEN-ACRE FARM.

I have a farm of 14 acres and I wish to keep as many cows upon it as I can, since I am getting from 30 to 35 cents per lb. for my butter from private customers in Detroit, 15 miles away. My trouble is, of course, to get sufficient pasture. I have Jersey cows. I can keep the cows through the winter but it is hard to bring them through the summer. Should I use phosphate on my meadows and drag it in, or is it too late? Should I treat an old orchard that has been pastured for the past six years, in the same manner? I have two acres of corn ground to break up this spring; could I sow or plant something on that ground that would aid me in supplementing pasture? Is it too late for peas and oats? I have four acres of sod that should be broken up but I do not know that I should do so. I am able to get good butter, for my exhibits took first prize in a contest last year, and was within the money the previous season, but that does not tell me how to get the most out of my land. My land is elm flats, contains some sand. I have no silo. Oakland Co. Mrs. R. H.

The ordinary farmer would not think of keeping many cows on a 14-acre farm, and, in fact, you cannot keep many cows upon a farm of this size if you intend to pasture them in the summer time. The ordinary farmer figures on having quite a large acreage if he intends to keep a very large herd of cows. As R. H. says, they can keep them through the winter well enough, but when it comes to pasture in the summer he meets a serious proposition. It takes so much land devoted to pasture to carry stock successfully through the summer. The reason, of course, is that the cattle waste about one-half of the feed grown in the pasture by tramping on it and soiling it other ways. Then again, if land is not broken up once in a while and re-seeded, the pasture is liable to get turf-bound and the grass does not grow luxuriantly and yields less and less each year until finally the pasture will not carry a very large head of stock. Then again, we ask a great deal of a pasture. Many farmers never think of fertilizing it. They neither top-dress it nor furnish plant food in any way, and yet the cattle are continually eating the grass which grows upon the land and thus removing the fertility which that grass takes out of the soil; then many of us expect the yield of pasture will keep up year after year. We are learning that this is impossible.

Rev. Deitrich, of Pennsylvania, practically solved the problem of keeping cows on a small area. He had only 15 acres of land and kept the cows in the barn and in a small yard the year around. None of it was devoted to pasture because he reasoned correctly at the beginning, that if he tried to furnish pasture he could not keep any amount of cows on his 15-acre farm; so he devoted the entire farm to the raising of forage crops or to furnish the roughage part of the ration and did not try to raise the grain. He purchased all the grain. He reasoned that he could purchase the grain cheaper than he could attempt to grow it on this small farm. In fact, the farm was not large enough for him to grow the entire ration for his cows. Of course, by purchasing all the grain that he fed to the animals, and carefully saving the manure and putting it back onto the soil, he rapidly increased the fertility of the soil and brought it up to a high state of crop producing power from which he raised enormous crops of clover, rye, corn, and other forage crops. In many instances he grew two crops each year. As soon as his clover hay was cut, he plowed the ground and planted the ensilage corn, and this would mature sufficiently so that he could put it in the silo for winter feeding. Now, in working this way he gradually built up the soil on his 15-acre farm so that the last year he operated the farm he actually kept 17 head of milch cows and young stock and horses to bring the total amount of stock kept on a 15-acre farm up to 34 head and yet that year he actually had hay to sell. Now, of course, this sounds fishy, but it is a fact, and you can find the records of this farm in the year book of the department of agriculture of the United States. It simply shows us what can be done by intensive farming if it is only properly managed.

Then my reply to R. H. would be something like this: If you are sure that you want to practice dairying on an intensive scale; if you want to keep all the cows that you possibly can on your 14-acre farm, first of all, give up the idea of pasturing. You can't do it. And we are

learning that we can't afford very large pastures on larger farms. It is too expensive. We can raise much more for the cattle to eat on land that is kept under the plow than we can get from the pasture, as pasture is usually very expensive. As a matter of fact, I don't believe any man can afford pasture only on land that cannot be successfully tilled. On most every farm a portion of it is rough land, creek flats, or has gulleys, or something prevents its being profitably kept under the plow, and we can get something off from it by pasturing. But on good, level, tillable land, that can be made productive, one cannot afford, from a dollar standpoint, to have this land in pasture.

Second. By all means have a silo and raise the corn to fill it. Then I would follow the practice of Rev. Deitrich and not attempt to raise very much grain. You can get a portion of your farm into alfalfa, and raise corn and alfalfa and then buy a sufficient amount of grain to make a balanced ration out of the corn silage and the alfalfa hay. In this way you can keep quite a large number of cows on a 14-acre farm. It requires quite a lot of figuring, it requires some capital to get started, but after you once get started you should have little difficulty.

R. H. says that much of this land is elm flats and I apprehend from this that the land needs tile draining because such soil is usually wet, and if this is a fact, then the first thing to do is to properly tile drain this land because you cannot raise corn and alfalfa on elm flats, or any other kind of land. That is the first essential to success on a farm that needs draining, is thorough tiling.

Of course, for summer feeding there are one or two systems that a person can follow, either soiling, by raising soiling crops, cutting them green, carting them to the barn and feeding them to the cows, or having enough land in corn to make a sufficient amount of corn silage to feed every day in the year. This, to my mind, is the cheapest, the best, and the most practical way. Soiling requires a great deal of work. Soiling crops cannot always be relied upon, and there is a great deal more waste with a system of soiling than there is in feeding ensilage in the summer time.

Therefore, from my experience with the two systems I would say, build a silo, have a sufficient amount of corn silage to feed the year around and not attempt to produce soiling crops. However, this summer until you get a silo built, and until you get a system started on your farm it may be necessary to grow soiling crops and you can sow oats and peas and early corn and then late corn to have it come in succession and cut this and feed it to the cows, and get very much better results than you would by pasturing them. A mixture of grains and grasses can be sown that will furnish a substitute for a summer pasture, but it is not very satisfactory, one year with another. It is merely a makeshift for a good pasture.

STANDARD WEIGHT OF CREAM.

I would like to find out the standard weight of a gallon of cream. I have been selling cream by the gallon to two different parties and one took eight pounds to the gallon and the one I am sending to now demands eight and one-half lbs. to the gallon. I don't feel like giving him any more than the first one I sent to.

Menominee Co. F. E.

There is no standard weight for a gallon of cream. Cream is not sold by weight. It is always sold by measure or on a butter-fat basis, and that is the only real, thoroughly reliable, practical way of selling cream. Sell the cream for so much a pound of butter-fat which it contains, then you get a square deal yourself and you give the purchaser a square deal also. The milk that is in cream is not valuable compared with the cream. The man buys the cream for the butter-fat that it contains and he ought to pay for this butter-fat and nothing else.

The weight of cream really depends upon the butter-fat which it contains. The richer the cream is in butter-fat the less it will weigh per gallon because butter-fat is lighter than milk. Now there is no standard for the weight of a gallon of cream, but there is a standard for the per cent of butter-fat. The government standard under the food and drug act fixes 18 per cent butter-fat as a standard for table cream. Most of the cream sold in Michigan for table cream is supposed to be 20 per cent, but the dairy and food commissioner rules that 18 per cent of butter-fat would be the standard for cream as that adopted by the government. This, so far as I know, is the only standard of any kind ever adopted for cream.

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More than 15,000 users of inferior and worn-out cream separators of various makes traded them in last year on account of new DE LAVALS, and doubtless there are



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SOME DEDUCTIONS FROM MILK TESTS MADE IN GERMANY.

There is a growing appreciation of the work done by the cow-testing associations of this and other countries, the best evidence of which is the establishing of organizations in new territory, the growth of old ones and the constantly increasing interest in the results these associations obtain.

In Germany for 16 years past tests have been conducted to determine, among other things, the difference between cows freshened in spring, and those in fall as to their milk producing capacity, the relation of high yield and age to the percentage of butter-fat and the correlation of form and function.

It was found by the tests that cows freshening in the winter months gave a larger flow of milk during the lactation period than beginning when freshening in the spring. When cows produce a large flow of milk the tests indicated that a smaller percentage of the milk was butter-fat, but there was no appreciable change in the content of fat as cows increased in age. By carefully judging the animals on points of conformation to the dairy type as it is known in Germany, and then comparing the conclusion of the judges with the result as shown by the milk sheet and the test for fat it was concluded that a rather close relation existed between the "milk signs" of animals and their actual performance. In all there were 3,000 registered cows concerned in the inquiry and the milk production of these animals varied from 2,724 lbs. per year to 13,218 lbs., the average yield for the 16 years being 6,819 lbs., containing a content of butter-fat 3.64 per cent.

BUTTER AND BUTTER SUBSTITUTES.

The great majority of people eat butter and much prefer it to any of the substitutes which have been put upon the market. However, a great many people must use a substitute on account of the high prices which prevail during certain months of the year.

Oleomargarine is the most common substitute for butter and millions of pounds of this product are consumed each year. The difference in cost of production between oleomargarine and butter is so great that when butter is retailed at forty cents per pound, oleomargarine may be retailed at twenty cents per pound at as great a profit to the dealer.

The person who chooses to purchase the substitute should be allowed to do so and he should be required to pay only the price of the substitute. The difference in price between the genuine product and the substitute is so great that dealers are tempted to sell the latter for the former. Only by requiring that the consumers may differentiate between the two articles can honest traffic in the substitute be insured.

This was contemplated by congress when the present internal revenue tax of ten cents per pound was levied upon "artificially colored oleomargarine." Many people think that all oleomargarine is taxed ten cents per pound. This is not a fact. Oleomargarine which is "artificially colored" so that the consumer cannot distinguish it from butter is the only oleomargarine that is thus taxed. When it is put upon the market in its natural color it is only taxed one-fourth of one cent per pound.

It is only when the product is made to look like butter so that it may be fraudulently sold as butter that a burdensome tax is imposed upon it. The imposition of the tax is not to suppress the sale of oleomargarine or to make it more expensive to the consumer, but to prevent fraud in its sale.

Minn. E. K. SLATER.

PAYMENT FOR MILK ON BASIS OF FAT CONTENT.

The agitation in these columns, at public meetings, in trade publications and elsewhere, of the system of paying for milk on the basis of the fat it contains has not been in vain for it is becoming more common to hear reports of success along this line each week—success in carrying out the scheme as well as in obtaining a superior quality of product which results in a better grade of butter or cheese and thus enables the creameryman or the cheesemaker to pay a price to the dairyman that more than compensates him for the additional care required to get the better grade of cream or milk to the market.

It is clear that the manufacturers are

favorable to the scheme. They know that a better product can be secured, but the almost bitter competition that has grown up in many localities for the milk produced has rendered nugatory many attempts to harness the trade with any system of grading, since the men who sell are encouraged by agents of one concern, or the other, to ship to them "any old way," twice-a-week or once-a-week as their convenience dictates. This has nurtured a spirit of carelessness among farmers and dairymen and they have become blinded to their own interests by the seeming indifference of the buying parties as to the condition of the product. However, it is certain that many farmers have thought the matter through and arrived at the conclusion that carelessness on their parts renders the buyers of milk and cream less able to pay a higher price and where these thinking farmers are in the majority the plan is meeting with success. Tests that show exactly the acid content of the milk are important factors in the plan as the patrons are confident that when cream is graded in second class it is proper for it to go there. It is certain that the future market will pay the man who puts work, care and intelligence into his product, a premium over the price received by the careless producer, and with such a market the trade itself will automatically bring about conditions for getting a better product by making prosperous the person who offers good milk and cream and bankrupting any other kind. The sober thinking, conscientious dairyman will welcome the day.

THE OLD, OLD STORY.

With the coming of spring and the starting up of the fresh, green grass, all nature rejoices; and the farmer breathes a sigh of relief that the cold winter is past, with its feeding, and the cows are hurried out to pasture to "pick their living." This they seem to enjoy—but what is the result? While it lessens the "chores" at the barn, it greatly increases the work of the housewife. In very many instances feeding at the barn is stopped, relying wholly on pasture feed, and from many sources comes complaint of trouble with churning.

Not only is the strength and patience of the housewife severely taxed, but actual loss is sustained.

We feed the regular ration of hay and ground feed (corn and oats) in the morning, then turn on pasture through the day, feeding hay and grain again when brought in at night. When this method is adopted we seldom have complaints of trouble in getting the butter to come; but where cows get nothing but pasture feed I have seen churnings where cream resisted all efforts to coax it into butter.

It should be remembered that the grass at this season of the year does not contain the nutriment of grass later in the summer, and is not only responsible for the trouble in churning, but is the direct cause of the loss of so many calves by scours.

A neighbor said to me last spring that they had lost three calves within a few days and had more they were fearful of losing—and all from scours. They said the calves were fed nothing but new milk, fresh from the cows and they could not understand what was the cause of the trouble; nor could they find anything to check it.

The new milk that she thought should have made nice calves, was, undoubtedly, what made the dead ones. The too sudden change from dry feed to nothing but green grass is what works the mischief, and takes off much of the profits of the farm dairy. A feed of hay and grain night and morning is cheaper than such lessons.

Do not let the cows go from the barn hungry in the morning, thereby compelling them to subsist on the watery grass; for just so long as this is done—just so long will we hear of trouble in churning and scours in calves.

Oceana Co.

J. M. W.

MORE ECONOMICAL PRODUCTION.

That same spirit which has persistently clung to our commercial interests until it has made them the marvel of the world, may be seen in agricultural circles, and while not revolutionizing conditions in that field so rapidly as in other industrial pursuits, is bringing about changes that are making for a higher rural standard. We speak of the spirit of economy which has laid hold of the principles discovered by science, observation and exploration and brought them into usefulness in every branch of American life.

Dairying has not escaped attention, and we find the Babcock test, the milking machine, the cream separator, sanitary stables, economical feeds, great systems of distribution of its products and a broad development of the uses of those products until the business has grown in the past half century beyond the recognition of the devotees of fifty years ago. But whether we advance, or fall back in the line of progress there are always problems to confront us—some part of the business is less attractive to us than others and it is the constant effort of man to mend that which is most repugnant to him; but in the improvement he often makes that which is most distasteful to him the most desirable, after which the remaining features come in for their share of attention. We make a single allusion: The delivery of milk to the creamery, the cheese factory, or the station, has been and is still a bore to the busy farmer. It either requires the spending of time the total of which for a single year is enormous, or the cutting down of the number of deliveries which brings to the market a poorer grade of milk or cream and consequently a shorter price. What is he to do? American genius will not permit him to say "Nothing," so it brings to him the automobile. Now, while the horse is being harnessed and hitched to the wagon, this machine carries the cans to the station two miles away. It takes but a moment and the duty is such that there is never a want for someone to do it. Those who have given the automobile a chance at this work are enthusiastic, and contend that here as in other uses, it is both serviceable and economical. It is coming into the rural sections not so much as a luxury as is the case in our towns and cities where men are buying them for pleasure, but to serve an economical end in that it saves time in the accomplishment of certain work, besides doing it with as little or less expense than the horse would do it. What will follow we cannot tell but it seems that for the present there is a place open and ready upon our farms for the automobile, and its coming is destined to help the farmer to keep up with the march of civilization.

Wayne Co.

C. T. H. B.

SUMMER DAIRY PROBLEMS.

The more I study the present dairy situation the more I am coming to believe that many dairy farmers are making a mistake by neglecting to maintain a maximum flow of milk during the summer months. Very few of us are in the business for pleasure. Profit is what we are after. Under present conditions may not the summer dairy yield fully as good returns as the winter? I am not in favor of a return to the old practice of summer dairying and allowing the cows to go dry during a large portion of the year when they should be more than paying for their food and care. However, I think that it will be admitted, other things being equal as far as cows and care are concerned, that as many pounds of milk can be produced from a herd on the summer as on the winter plan. Many dairy farmers and agricultural correspondents seem to harbor a belief that the cow that freshens during the fall will give more pounds of milk during the year than the cow that freshens during the spring. The fallacy of this belief has been proven by carefully conducted tests. The cow that freshens during the fall requires the best of grazing if she is to maintain a suitable flow of milk during the summer, the same as the cow that freshens in the winter or early spring requires plenty of nourishing food to maintain a suitable flow of milk during the late summer and autumn months. It is more in the system of management than in the time of freshening that determines the year's milk records. Both experience and observation have convinced me that we should maintain as nearly as is possible an even flow of milk during the whole of the year.

It is not my purpose to make a plea for the medium, or low-producing, cow. She deserves no eulogy. This class of cows get into every herd. We cannot recommend them to a buyer; they are too good to give away, and are hardly worth keeping. This is one of the dairyman's most perplexing problems. It is easy to write superficial truths and quote figures to show how many millions of dollars we are annually losing through feeding inferior cows. We may use the Babcock tester and the scales to discover the robbers, but honest, brother dairymen, how are you going to eliminate the medium cow. I offer no solution that will fit all cases. If they are put on grass and milked dur-

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ing the summer they will not run you in debt very fast. Put them in the winter dairy and feed them high-priced grain foods and they will eat up all the profit from an equal number of the best cows.

With the present prices of grain foods the herd will give as good profits during the summer as the present winter dairy. For many years I have advocated winter dairying, but during those years grain and by-product feeds were cheap. We cannot make cheap feeds, but we can change our methods. We can grow better farm feeds for our cows. One other point I wish to emphasize is that we can provide more suitable rations for a herd that gives milk during the summer than we can for cows that give most of their milk during the winter. Good pasture, proteinaceous forage crops and a very small quantity of grain foods make up a well proportioned ration for cows that are giving milk during the summer. Clover or mixed hay and corn ensilage will make up an excellent maintenance ration for winter. The great hindrance to profitable dairying is the high cost of grain feed and cows that do not pay for what they eat. We must improve in this line if we get the best returns from our cows. It should be possible each year to buy less grain food in proportion to the milk produced. Liberal, yet more economical, feeding, must be our aim. This will give all the profit there is in the business as far as feed is concerned. Less winter milk would mean higher prices for milk and lower prices for grain feeds. This is just what we need to make the business more profitable.

Good fences are an important factor in the summer management of the dairy herd. Good fences make friendly neighbors. Poor fences and dilapidated gates are a source of constant danger and annoyance. The farmer who keeps cows should have his pasture safely inclosed with good fences. Many valuable cows are lost or permanently injured each year through neglecting to mend a gate or repair a break in a fence as soon as discovered. Not necessarily by the fence or gate itself, perhaps she strayed into a field of clover or grain and became bloated; into an apple orchard and choked, or onto a railroad track and was killed by a train. Sometimes the whole herd breaks through the fence into a neighbor's field and ruins his growing crops. Such things are very unpleasant and expensive. Good fences are cheaper than valuable cows, damage suits and court costs, besides, every dollar spent for fence material and gates adds to the value of the farm.

When practicable, it is best to have the pastures sub-divided so that various animals are separated and to give the cows a change of pasture when one becomes closely grazed. In this way the cows obtain their food by walking over one-half the area. Dry cows and young animals should not be allowed to run with the milkers, as they are a source of annoyance at milking time and when driving the herd from the pasture to the stables. By fencing off a few acres of poor land and utilizing it for a night pasture for the cows it will become well fertilized and very productive in a few years and the owner will know just where to find his cows at milking time.

Good, tender and nutritious pasture grasses promote the heaviest milk flow of any ration and it seldom pays to feed supplemental grain foods while the cows have plenty of good pasture grass. When grasses begin to dry up and diminish in quantity supplemental foods should be quickly supplied. Various carefully conducted experiments show that unless dairy products are extremely high there is a loss in feeding grain to cows that have plenty of good pasture grasses.

The supply of water is an important factor in keeping up the milk yields and health of the dairy cows. Various diseases such as typhoid may be transmitted from cows to the human family through the use of water from impure or stagnant sources. Unless the pasture is well supplied with fresh running water or water from springs they should have water pumped from deep wells during the dry summer weather. Cows that have to drink impure water fall away in condition rapidly. Water is fully as important as food.

Cows should have shade during the heat of the day. Many argue that cows will give as much milk when confined in a pasture without shade, but humanity dictates that we should make our cows comfortable by protecting them from the direct heat of the sun during the summer weather.

New York.

W. MILTON KELLY.

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The ordinary tire—the clincher tire—has hooks on the base to hook into the rim flange. That is how the tire is held on. See the next picture.

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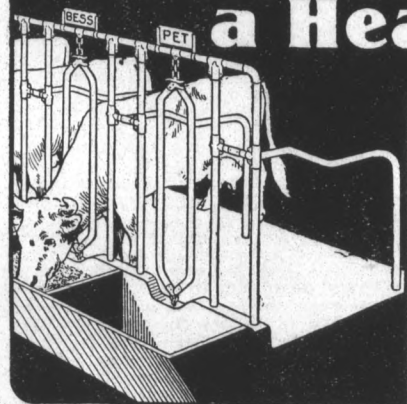
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The Lawrence Pub. Co.,
Detroit, Mich.

DETROIT, MAY 20, 1911.

CURRENT COMMENT.

Pursuant to the plans as announced in the last issue and in accordance with arrangements made by Mr. M. J. Lawrence for a hearing of Michigan and Ohio farmers before the Finance Committee of the United States Senate relating to the Canadian reciprocity pact, a joint delegation from the two states numbering twenty-five people, representative of the agricultural interests of the two states, arrived in Washington on the morning of Thursday, May 11, for which date the hearing had been set. The personnel of the Michigan delegation was as follows: Ex-Governor Fred M. Warner; Dr. J. L. Snyder, President of the Michigan Agricultural College; Hon. A. M. Brown, Secretary of the State Board of Agriculture; Mr. C. E. Bassett, Secretary of the Michigan State Horticultural Society; Mr. R. C. Reed, President of the Michigan Live Stock Breeders' and Feeders' Association; Mr. N. P. Hull, Master of Michigan State Grange; Mr. J. W. Hutchins, Secretary of State Grange; Mr. B. A. Holden, President of Michigan State Association of Farmers' Clubs; Hon. L. Whitney Watkins, of Jackson county, well known to the farmers of Michigan through his connection with numerous farmers' organizations and as a large farmer and stock feeder; Hon. H. E. Powell, of Ionia county, similarly well known as representing the progressive class of farmers and breeders of the state; Mr. Jas. N. McBride, of Shiawassee county, prominent as a farmers' institute lecturer and agricultural writer; E. H. Houghton, Business Manager of the Michigan Farmer, and I. R. Waterbury, Editor of the Michigan Farmer. The Ohio delegation included equally well qualified representatives of the farmers' organizations and the several departments of farm production in that state.

Upon arrival the two delegations assembled and organized for the work before the committee, after which they repaired to the committee room to await the hearing. A delegation of farmers from Minnesota and the Dakotas was also scheduled for a hearing, and the members of this delegation occupied so much time in their addresses to the committee that the Michigan and Ohio delegation was obliged to wait until the next day before being heard. In response to requests

that he lead in the protest of the joint delegation, Mr. M. J. Lawrence first addressed the committee. The text of his plea for the farmers whom he represented is given in another column of this issue. Ex-Gov. Warner followed for Michigan, speaking especially for the dairy industry in his opposition to this agreement. Dr. Snyder was the next speaker from Michigan, his plea being for the development of our own agriculture instead of sending thousands of our best men and millions of our good money to aid the development of Canada. Mr. Bassett spoke from his broad knowledge of the fruit industry of Michigan, as well as the other states and Canada, showing conclusively the fallacy of the claim that this pact would benefit the fruit growers of Michigan, while Editor Waterbury, of The Farmer, presented statistics proving that any tendency toward high prices of foodstuffs which this agreement was designed to correct was not chargeable to the farmers of the country, since our per capita production of staple foodstuffs has steadily increased during a period of more than 40 years and is greater today than ever before, and warned the committee that if the purchasing power of the farmer, who is the American manufacturer's best customer, were impaired by this bill the manufacturers and business interests at large must feel the baneful effect of such a mistake. Other phases of the problem were presented by members of the Ohio delegation, who spoke alternately with those above mentioned from Michigan.

It is but fair to say that the presentation of the farmers' cause by the Michigan and Ohio delegation was most courteously and attentively received by the members of the Committee, and it was commonly remarked by those in attendance that no delegation yet heard had advanced so much strong argument against the pact.

The delegation is greatly indebted to Senator William Alden Smith, of Michigan, for the attention which he gave and the assistance which he rendered them. Senator Charles E. Townsend was present at the hearing and gave close attention to the arguments advanced and talked the situation over very frankly with the members of the delegation from Michigan after the hearing, who left with the feeling that he is applying himself to a deep and exhaustive study of this important question and that his ultimate solution of it will be the right one. As to the Senate Finance Committee, the delegation felt that they had received great encouragement from the attitude of Senators McCumber, of North Dakota, Smoot, of Utah; Clark, of Wyoming; Heyburn, of Idaho; LaFollette, of Wisconsin, and Bailey, of Texas, while most of the other members of the committee were manifestly not unfriendly to the great agricultural interest represented by the delegation and all gave close attention to the evidence submitted, indicating their full appreciation of the gravity and importance of their deliberations relating to the matter under consideration. The delegation came away with a degree of hopefulness regarding the outcome, and we believe we may safely hold out some encouragement to our readers that the problem will yet be solved in a manner more satisfactory to them than would be the approval of the agreement in its present form.

THE FARMER AND RECIPROCITY.

Address of Mr. M. J. Lawrence, chairman of the Michigan and Ohio delegation, before the Finance Committee of the United States senate.

Mr. Chairman and Senators:—There are no trusts or combinations of capital connected with this delegation. Every member of it is giving his time and expenses through genuine patriotism to agriculture without the hope of fee or reward. So give us credit for sincerity at least.

There is a genuine dearth of experienced oratory in this delegation; that is not their business. So be generous, senators, and let us make our earnest pleas and retire with our egotism alive and with the hallucination perhaps, that we have made some impression on your august minds.

My subject is THE FARMER.

In a retrospective of the comparatively short history of this nation, giving credit for its mammoth development, which has not a parallel in the world's history, what industrial class, from its origin to the present, is entitled to more credit than the farming class? In making an estimate for the future continuation of this development and prosperity, what industrial class enters into this estimate with more importance than the farmer? I think I hear every one of you say in your minds, "None," to both queries.

The first great President of this nation was a farmer. Abraham Lincoln, Ruford B. Hayes, U. S. Grant, James A.

Garfield, and thousands of others of our greatest men were raised on the farm. What kind of citizens are they? Up to 1776, agriculture was almost the entire calling and over 70 per cent of Gen. Washington's army came from the farm.

In the decade of 1850 to 1860, it was the intensified sentiment of the rural classes that focused the crusade to wipe the stain of human slavery from the escutcheon of this nation and when the crucial test came the farmers furnished more than their quota to build and sustain to the end that living wall that said, "This nation must and shall be preserved." I was one of them for four years and 18 days and speak from actual knowledge when I say, for cool courage, loyalty and endurance the farmer soldier had no peer. There are over 30 millions of our people engaged in the avocation of agriculture. They are, by all odds, the most homogeneous class of our citizenship; in pedigree far outranking any other class in genuine American blood. Wise statesmen have referred to them as the safety valve of our political system.

They are not rampant nor excitable. They set a high example of law abiding patriotism. There never were strikes, riots nor mobs among farmers. You never heard of farmers being arrested for violation of the Sherman anti-trust law, nor for violating the custom laws of the country.

The farmers have contributed their full share, during the past 50 years, to the upbuilding of our other immense industries, by paying the high protective duties on all they had to buy, but have, up to this time, received a very meager share of its benefits. When capital and energy invested are compared with other industries, the farmer's share of benefits from protection have been small indeed. Immediately, when the great consuming markets for farm products that he has assisted for so long and liberally to create, commence to show him some little benefits, are they to be ruthlessly destroyed and a great foreign producing country, with immense advantageous facilities, to be admitted on equal terms to these home markets of ours?

You may say, "Help the consumer to cheaper food!" A worthy desire per se, but is it just at the expense of an equally worthy class? I challenge the President or any other man to demonstrate how the workings of this pact is going to reduce the prices of farm products to the consumers without lowering the prices paid to the American producers? There may be some legerdemain or hierarchal performance, incomprehensible to the layman, by which it can be accomplished.

The production of wheat in Canada has increased from 51 million bushels in 1900 to 150 million in 1910, or over 300 per cent in 10 years, over 50 per cent of which is surplus. Every indication points to a much greater per cent of increase during the next decade. It is safe to estimate that Canada will, in the near future, export over 150 million bushels of this cereal annually. I will mention just a few samples of the imports of farm products from Canada last year: Wheat, 152,000 bu., duty 25c a bu.; oats, 946,000 bu., duty 15c a bu.; hay, 96,500 tons, duty \$4 a ton; fresh milk, 11,700 gals., duty 2c a gal.; fresh cream, 731,000 gals., duty 5c a gal.; maple sugar, 1,783,000 lbs., duty 1c per lb.; wheat flour, 144,000 bbls., duty 25 per cent advalorem; butter, 1,000,000 lbs., duty 6c per lb. With these importations of farm products from Canada paying our present heavy duties, which average about 33 per cent advalorem; with their present great surplus and prospective development, what will be the imports when all duties are removed? The only answer is many hundred fold of increase.

It is said our consumption is approaching the total of production. True. But why not encourage home production instead of buying it abroad, and thus stimulate increased rural population, the contrary tendency of which is becoming truly alarming? With the intense systems of agriculture in vogue in many foreign countries, it is absolutely safe to estimate that this country can produce agricultural products sufficient to feed and clothe 400 millions of people. It is home production, almost regardless of local cost, that enriches a nation and foreign purchases that consume its wealth. I gladly re-echo the cry to "Benefit the laboring man" but I would not rob some other class to do it. Who is more truly a laboring man than the farmer? What kind of class of laboring man, I ask you, is more justly entitled to the gratitude and protection of his rights by this government than the farmer? Some may say, injury to the few is justified by benefit to the many. If that is good logic then the whole theory of a protective tariff is false and misleading. There are less than one one-hundredth of our population engaged in the manufacture of cotton fabrics, the products are an absolute necessity for every individual of our 92 millions of people. Why not admit cotton goods free from England? I will stake my reputation upon the assertion that the cotton manufacturers of Manchester have not as much actual advantage over the cotton manufacturers of Columbia, S. C., as the agriculturists of Canada have over those of this country. But I am, and always have been, a protectionist. The upbuilding of any one great national industry vibrates, distributes and permeates benefits to all others, and the same rule in converse arbitrarily applies to an injury to any important industry. We are asking for no special class legislation for the farmer but simply that he receive fair treatment. He is no beggar, wants no coddling nor babying, but wants only justice.

Furthermore, the politician who estimates the American farmer of today as either a fool or a coward is wandering very far from the fact in the case. As a matter of government finance the United

States duties on the little farm products from Canada last year paid into our treasury over five millions of dollars, which is obsolete in the new pact. The balance of trade with Canada last year was nearly 120 millions of dollars in our favor. This is certain to be wiped out and changed to a large balance in favor of Canada under the new pact.

The hurrah of the secular press for this pact, which is liberally subsidized by it, and whose agricultural patronage is infantile, is no safe criterion by which to judge of public sentiment.

But, senators and friends, in nearing a close I approach a subject that is painful to me, as it discloses to a slight degree, at least, the fallacy of a great ideal in manhood that my zeal and loyalty had builded and clothed with raiments of near perfection. I was a soldier over four years in the Civil War and was discharged at the close of that great conflict, four months before I was twenty-two years old. I have been two things all my life, one a farmer and the other a republican. I distinctly remember the Franklin Pierce campaign of 1852. I walked two miles with my father to the town voting place and saw him cast his vote for Fremont in 1856. I cast my maiden vote, while a soldier, for Abraham Lincoln in 1864 and my every vote since has been republican. We went far beyond our custom in both our papers, which are non-partisan, to advocate the nomination and election of William Howard Taft. I shall vote for him next year if the opportunity is given me. I truly loved the man. I love him still. No true man can look into those kind blue eyes and stand within the radiance of that genial smile that glows with charity for all, and entertain any doubt of his absolute honesty, sincerity and motives for good. "But he is human and it is human to err." The blindfold origin and dominating progress of this Canada pact has most effectually demonstrated that it is possible for the President to make a mistake. A great, important, international contract, with far reaching effects and influences, that promise to grow and increase materially in magnitude with application, is being forced with almost oligarchical power into law, that will result in an absolute robbery of the most important industrial class of the nation and dire confusion for all other industries.

But senators, this is not a one-man government. If so this chamber of senators is a plaything and an extravagance. The framers of our constitution wisely created this dignified legislative body of matured statesmen to correct the mistakes of the lower house and of the executive.

In conclusion, let me say to you, "Noblesse Oblige." Rank imposes great obligations. The people have honored you with rank and power. They justly expect much of you. I cannot and will not entertain the thought that the fear of "Non Persona Grata" will have any influence with the words or vote of any member of the United States Senate in considering and disposing of this very important affair.

HAPPENINGS OF THE WEEK.

National.

Dissolution of the Standard Oil Company was ordered by the supreme court of the United States on Monday of this week. The legal battle which was brought to a close by the decision extended over a period of many years in which the most eminent lawyers of the country contested every point of vantage and proved every clause of the statute touching upon the case. The court holds that the company is a monopoly in restraint of trade, that the corporation must be dissolved within six months and that the law refers only to unreasonable restraint of trade, other combinations being not affected. The main features of the decision were agreed to by the judges unanimously, but as to defining between unreasonable and reasonable restraint of trade Justice Harlan objected, stating that the holding was opposite to what the law had been interpreted for the past 15 years. The decision will not, therefore, affect trusts that are not unreasonably restraining trade, a feature that will tend, it seems to be generally held, to give confidence to business conditions. It was expected that a decision as regards the tobacco trust would be handed down at the same time but it is likely to be read the latter part of this month. President Taft and his cabinet will go over the entire trust situation and consider the advisability of pressing for a statute requiring the federal incorporation of concerns doing interstate business.

In a clash between a mob of strikers and the police of Grand Rapids, eleven persons were more or less seriously injured. The furniture men of the city have walked out and they were in an attempt to burn one of the factories, it is charged, when the rioting occurred.

It is announced that an arbitration pact with Japan, modeled after the recent agreement between this country and England, is to be arranged.

The congressional committee for the District of Columbia reports a bill into congress for the restriction of the number of saloons in the district to 100.

The department of agriculture has calculated that the value of the products produced upon the farms of the country for the season of 1910 will aggregate \$8,926,000,000 which is an increase over the preceding year of \$104,000,000. Texas now occupies first place as the principal producer, having wrested it from Illinois.

The United States supreme court reversed the decision of the lower court in the Bucks stove case, and thus holding Samuel Gompers, John Mitchell and Sec-

(Continued on page 567).

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

LEST WE FORGET THE BRAVE

AT GETTYSBURG.

BY MRS. M. B. RANDOLPH.

Toward the field of Gettysburg
A soldier gray and wan
One morn in May took up his way
From shores of Michigan.
White apple blossoms like falling stars
Had strewn the fruited beach,
And petals pink as tropic shells
Had drifted from the peach.

Toward the field of Gettysburg,
With locks of silver shine,
At night's descent another went
From shores of Caroline.
Magnolias pale as evening stars
Lit up the fragrant gloom,
And pink as shells from Indian seas
Was oleander's bloom.

Upon the field of Gettysburg
They met—the blue and gray;
Many the scene that lay between
This and that other day
When here they met as youthful foes
Each fighting 'neath his sign,
The soldier boy of Michigan,
The one from old Ca'line.

They walked along the sweeping ridge,
They scanned the rounded hill
Where both had fought and madly sought
His brother's blood to spill;
Then toward the city of the dead
Each took his silent way,
Where curfew seems forever rung
O'er ashes cold and gray.

No portal oped; no footstep crossed
The door stones low and still;
No sound was heard save doleful word
Of spectral whippoorwill;
The moonbeam's silver pencil traced
The weatherbeaten name,
While down the aisles with whispers
strange
The ghostly night winds came.

"Stranger, 'tis a gruesome thing—
This army of the dead—
My blood runs cold with mem'ries old"
At last the Northman said;
"Yes, friend," the Southron now replies,
("Twas here they first had spoke),
"For each still heart that 'neath us lies
Another heart was broke.

"Each deadly ball that did its work,
Each sabre in the fray,
In that wild strife pierced gentler life
In some far home away;
Brave deeds were those for Northern
knight
Or Southern chivalry!

The Silent Camps of Blue

By T. C. Harbaugh.

'Neath the beauty of the blossoms, 'neath the cedars and the pines
Sleeps a mighty blue-clad army that once formed the battle lines,
Far the smoke of war has drifted and the snowy wings of Peace
Hover Columbia's heroes who from strife have found release,
Silent is the trilling bugle and the war-drum is at rest
And the violets are blooming over many a dauntless breast,
Fame keeps watch beside the river under skies of azure hue,
And Glory stands, a sentry, in the silent camps of blue.

The ring-dove wooes his mate today upon the battled hill,
And through a field of daisies sings the once ensanguined rill,
The lily nods unto the rose, deep in the haunted wood,
And the thrush is sweetly calling where the Nation's legions stood
The spider spins her subtle thrall across the cannon's mouth
And the oriole is singing on the war fields of the South,
And Memory touches with her wand, so beautiful and true,
The tender grass that grows among the silent camps of blue.

They rest upon the mountain and they sleep beside the sea,
Their bivouac is found where stood the tents of Grant and Lee,
For them no midnight challenge and for them no deadly raid,
No rude alarms of battle and no bayonet and blade,
Above them floats "Old Glory" in the shadow and the shine,
As oft it floated proudly o'er the lurid battle line,
Its stars agleam with beauty and its stripes of crimson hue
Keep Fame's eternal vigils in the silent camps of blue.

Behind the muffled drums today a few old comrades march
To scatter flowers above the brave beneath the azure arch,
With faltering step adown the street 'neath the drooping flags they go—
The men who in life's golden prime met oft the stubborn foe.
They march adown the narrow aisles where lift the guarding pines,
A remnant of the mighty host that made the battle lines;
They're waiting in the gloaming, as their life path they pursue,
For the Grand Commander's summons to the silent camps of blue.

Forever may the lilies bloom in beauty and in love,
Where sleep the Nation's gallants with the dewy sod above,
Forever may the flag they saved float where they gently rest
With Nature's loveliest treasures scattered o'er each hero breast,
For them Columbia's rivers thru the summers long shall sing,
The woods that clothe their battlefields with praises long shall ring,
And once a year a grateful land with willing hands will strew,
The roses and the lilies in the silent camps of blue.

I would oblivion's angel might
Wipe all that guilt away."

No need to question whence each came
Nor cause that claimed his steel;
The place of birth tho' South or North
Their accents all reveal;
They clasp their hands above the dead
Their tears like jewels shine—
The mingled tears of Michigan
And those of old Ca'line.

HEROES OF BLUE AND GRAY.

BY RUTH RAYMOND.

Sad are our martial strains,
Dirges for those who sleep,
Under the southern rains
Truce of the years they keep;
Under the northern snows
Silent and still are they,
Comrades in death's repose,
Heroes of Blue and Gray.

Here is a sunken mound,
There is a costly urn,
Graves of our boys are found
Every which way we turn.
Over them lightly spread
Fragrant bloom of the May;
They are the Nation's dead,
Heroes of Blue and Gray.

IN MEMORIAM.

BY Z. I. DAVIS.

A common sorrow binds all hearts
In unison today.
The flag that leads the veterans,
Upheld by blue and gray,
Floats at half mast; with muffled drums
And silent martial tread
They enter, solemnly and sad,
The city of the dead.
With them the sympathetic heart
Of nature kindly grieves,
With theirs, her quick warm tears flow
fast
From overhanging leaves.
Scarce heeded, sings the oriole
Along the flower-strewn way,
For broken hearts throb with sharp pain
On this Memorial day.
Ah, they are going one by one,
The ranks are thinning fast,
Soon will the taps call out for those
Whose feet have hither passed.
Once more a bright and unscarred flag
Is planted o'er each grave,
Where hands are folded silently
That helped our land to save.

We leave them there at rest in peace
The silver stars their crown,
God help us to take the burden up
That their brave hands lay down.

DECORATION DAY—Suggested by a Woman.

BY EVA RYMAN-GAILLARD.

TO Gen. John A. Logan is given, almost universally, the honor of founding Decoration Day, but the suggestion was made to him by Mrs. Henry Kimball, of West Philadelphia. When passing through the south, Mrs. Kimball had seen women strewing flowers over graves of Confederate soldiers, even before the end of the war, and the ceremonies became so impressive, and fitting, that she went to General Logan, who was then commander-in-chief of our army, and suggested that a day be set apart, on which we should in similar way show loving remembrance of our own Union soldiers.

In accordance with the suggestion General Logan appointed May 30, 1868, as a day to be observed with appropriate ceremonies to show fitting honor to those who had given their lives for the Union. May

30 was chosen in commemoration of the fact that it was the date on which the last Union soldiers were discharged and, by an odd coincidence, it was the date on which the graves of the Confederate soldiers had been most generally decorated, though no law or "act" governed the time.

New Jersey claims the honor of making the first effort to have Decoration Day made a legal holiday, but, even yet, some of the states observe different days—North and South Carolina taking May 10; Alabama, Florida, and Georgia, April 26, and Tennessee the second Friday in May. The date, however, makes no difference in the spirit of the deed, and with the passing years there has grown, largely, in both north and south, the beautiful custom of decorating all graves wherein soldiers are sleeping, irrespective of the

color of the uniform they wore during the days of warfare.

General Logan's order was issued, strictly speaking to the Grand Army of the Republic, each post being left free to decide on the order of exercises best adapted to their locality, and to ask the co-operation of the public. The G. A. R. has always been ably seconded by the Women's Relief Corps and the Ladies of the G. A. R., as well as by all patriotic people, and during later years the Sons and Daughters of Veterans are coming to the fore and filling the places made vacant by the passing on of those who so patriotically began the work on May 30, 1868.

Under the original "order" only the soldiers who rested in graves on land received the visible tribute, but, a few years ago, Mrs. S. C. Forbes, of Califor-

nia, suggested the idea of honoring those who fought on the waters by scattering flowers broadcast over them. A revenue cutter was placed at her disposal and the custom of "Decorating the Waters" in memory of our sailor soldiers was inaugurated and quickly taken up in other places.

Each succeeding Decoration Day finds more "soldiers' graves" awaiting our flags and flowers, while the ranks of living veterans show correspondingly fewer numbers and are pathetically weaker, physically. The youngest "veteran" now living can hope to strew flowers above his sleeping brothers-in-arms but a few times more, and the fact makes it eminently fitting that the history of the day be told, and retold, that the coming generations may not lose its significance, nor fail in its observance.

ONCE A MORMON.

By IRMA B. MATTHEWS.

Chapter XIV.—(Concluded).

"I would never obey," repeated Robert. "Well, if you did not, what then? Even you would not be safe here. No, Robert, do not urge me; I cannot do it."

"But what will you do?" anxiously. "You cannot live on here alone forever if your father will not provide for you."

"I do not know. I cannot see my way, but," and she lifted her face toward the starlit skies, "somewhere God lives and knows and He will care for me I am sure. I can think of nothing now but my mother; after she is gone I do not know. Life will hold but little for me I fear."

How Robert Stuart longed to comfort her, but he could not, and he saw it was best to say nothing more now.

"I am selfish in keeping you from her now," he said. "I will come every night, Elinor, whether I see you or not, and if you need me come to this place any night and I will join you. Do not refuse to let me help you, will you?"

"No, Robert, I will not, and I thank you. It will give me courage to feel that you are sometimes near, for, oh, I am so afraid," her voice sank to a whisper, "so afraid of that man." Then she left him and went back to her vigil while Myra tried to take some needed rest.

Robert kept his promise, although Elinor did not see him often for her mother was growing weaker and she did not leave the house very often, but she often found evidence of his visit in the shape of fresh fish or a bit of game left on the doorstep; sometimes also it was some dainty for the sick woman that he thought she might relish, and often there was a note breathing deeply of sympathy. The food was very welcome to the women, for often there was but little in the house to eat and they were too weary to prepare it, but what Robert brought was always ready to be cooked.

They had another friend, too, although it was many days before they knew who it was, but they found other things on the step, things that no one but a woman would think of bringing—loaves of bread fresh baked, and now and then a dainty custard, a pie, cake and even meat nicely cooked.

But one morning Elinor had gone early to the door and she was confronted with the wistful face of her father's young wife with a dish in her hands.

"You," gasped Elinor; "has it been you all the time?"

"Yes," answered the other humbly, "but please do not refuse my help now that you know. Oh, I feel so sorry for you. I lost my own mother but a short time ago," and tears came at the thought, "and yet," she looked up piteously, "I cannot be sorry, either. I am glad she did not know the position I occupy today. My mother was never a good Mormon."

Elinor felt her heart warm toward the girl—she was little more than a child in reality—forced into her present position by the king and her father, not through any choice of her own.

"We will not refuse your help," said Elinor softly, "and I thank you, oh, so much. It has indeed been a godsend to us sometimes, and I do not know what we would have done without it. Does my father know?"

He did not at first, but he grumbled because I used so much food and then I told him."

"And did he not object?"

"Yes, but I told him if I might not do this for you, then I would not cook for him, and he came home one day and found nothing in the house to eat and then he gave in."

Elinor smiled faintly. She knew how well her father liked good victuals. "Now I must run back," said the other. "I am glad, after all, that you know and I wish I could help you more."

Elinor turned into the house with a sigh. What a lovely girl she really was and, under other circumstances, what friends they might have been. It was a dreadful muddle, this world, anyhow. She wished she might repay the young girl's kindness and, in a way, this wish was granted weeks afterward, although Elinor would never have thought she would have repaid it in the way she did had she known it then.

Chapter XV.

Mrs. Brandon lingered along weeks and then one morning the end came very suddenly. She had just eaten a little breakfast and turned to say something

to Myra, who was sitting by her bed, when she gave a sudden gasp and was gone. Myra screamed and Elinor ran to her, but their mother was beyond all trouble and care.

They soon found they had many friends, both among the Mormons and the Gentiles, who came to see them and offer their services but the two women, clinging together, heeded not their coming or going. For them the light of day had been blotted out.

They laid her to rest on a little knoll where the sound of the waves could be heard singing a soothing lullaby and the trees cast a shade over the low mound. Elinor planted a white rose bush at the head. Mr. Brandon seemed to really mourn for his wife. Death had leveled his pride and he even begged his daughters to come back to their home. Elinor refused. "No, I cannot go again into the home that was forever closed against my mother, and I could not bear the sight of the rooms that were once bright with her loving presence. We will stay here together, Myra and I, until we decide what it is best for us to do."

The young wife, however, came openly to their home now and they did not turn her away. There was a sadness about her face of late that won the sympathy and compassion of both women and they were very kind to her. Robert spoke to Elinor once about it and she answered, "You think it strange I can be kind to her when she drove us all from our home, but believe me she was but the innocent cause of it all. Clara is no more to blame for her position than Myra is for hers. It is all so terrible, and she is so young, I feel very sorry for her."

"I have heard she wishes your father to make her his legal wife now that your mother is gone, but he refuses."

Elinor looked startled. She had never thought of this. Of course, her father was free to marry now, but the idea had not entered her head before, and he was liable to marry another woman and then Clara would be no better off than before, for the new wife would be the legal one. She thought long and deeply of the matter, and then one day she questioned Clara in regard to it.

"Yes, it is true I have asked him to marry me over but he will not. He says my lot is no worse now than it was before, and he seems to feel remorse for the way he has used the rest of you, for he says he will not do anything to make you girls any more unhappy than you are and he thinks you would resent my being his legal wife."

Elinor thought long of the matter, and the more she thought about it the clearer her duty became. It was a hard fight, but she remembered the kindness of the young wife during her mother's illness and she knew nothing could harm that mother now. After awhile she had a long talk with Myra, then she went to see her father one evening, choosing a time when she should find him at the barn for she could not bring herself to enter the house.

"Father," she said, "I have come to ask a favor at your hands."

"If it is within my power I will grant it," he answered readily, for really the estrangement hurt him more than he cared to own, and besides, he was learning more and more of the inside of King Strang's government and what he was learning was not very favorable. From something the king had dropped he had discovered that his own second marriage was ordered as a punishment for that little rebel, as he always called Elinor, and not because it was a divine command as he told him at the time.

"Father, you know that Clara was very kind to us during mother's illness, and I do not think she is to blame for what happened. She is only a girl and she is no wife, you know."

Her father looked startled.

"I want to repay her, and, father, the request I wish to make is that you make her your wife."

"You ask this?"

"Yes, Myra and I both ask it, in humanity's name."

For some time he was silent; then at length he spoke. "I said if it was in my power it should be granted, and you have my promise, but I had never thought of anything like this." Then, as the real nobility of the action dawned upon him he added brokenly: "I have wronged you and my dead wife beyond repair, but, oh,

daughter, you do not know it all. Forgive me, oh, forgive me!"

"When I can, father, I will try and do so, but mother forgave and prayed for you, and, father, do not darken another woman's life. Do the best you can for Clara," and she turned away, feeling she could bear no more.

The next day Mr. Brandon kept his promise and Clara Brandon, with tears streaming from her eyes, went to thank the girls who had been so generous to her. Then some months of calm passed for the girls. Their life was made easier than it had been, for the father saw that they wanted for nothing. But, like her mother, Myra could not survive the terrible living sorrow she was called upon to bear. Dead sorrow is hard, but who can picture the misery of living sorrow, and it was soon apparent to all that she would sleep beside her mother in a short time. She had aged fast; although but thirty, her hair was white as snow. For a time, while her mother needed her, she had seemed to rally, but now that incentive was removed and she sat day after day with a far-away look in her eyes, living over again her days of happiness. Then came a blessed forgetfulness when she was once more a happy wife waiting for her husband. "James stays late tonight," she would say, plaintively. "I wish the king did not want him so much. Will he come soon do you think, Elinor?"

"Yes, soon," the sister would answer soothingly, and she would smile and sleep.

Then there came a time when Clara came to her with her baby boy in her arms but Myra only looked at it in surprise.

"I do not understand," she said in a puzzled way. "They told me the baby died."

"What does she mean?" asked Clara.

"I believe she is thinking of the baby she lost. She does not comprehend, you see."

She fell peacefully asleep one evening, never to awaken, murmuring as she did so, "Wake me when James comes home, Elinor; I am so sleepy I cannot keep awake now. I must sleep just a little while," and she slept indeed—the sleep that knows no wakening.

After Myra was gone Clara entreated Elinor to come home and, feeling that she could not stay in the house longer alone, she went. One thing she had been thankful for, the king had been elected to the state legislature and was absent a great deal from the island, so she had not seen him and had felt free from his persecution. Not once, however, did she ever think he had forgotten her or his hope of breaking her will.

Robert had entreated her to marry him more than once but always she had given him the same sad reply. She could not, nor would not, marry a Mormon, but he would not take her reply as final, declaring that if she did not marry him he would never have a wife.

"I heard the king came home on the steamer last evening," said Clara one morning. Just why, Elinor could not say, but a feeling of terror swept over her. Clara saw the dislike in her face and answered it. "I do not wonder you hate him, Elinor. I have no love for him myself, but for your own sake I wish you did not set yourself in opposition to him. I cannot tell you how I dread his ill will."

"My disobedience cannot hurt you, Clara, and there is no one left now through whom he can strike me; it must be me alone."

"I did not mean that, I had no thought of harm for myself," was the quick answer, "but you do not know what the man is capable of. Anyhow, Elinor, do not go far from the house alone while he is here." As Mr. Brandon entered the house just then the conversation was dropped.

Chapter XVI.

Elinor did not see Robert for some days. The fact of the matter was, although he had been so patient with her, he was growing indignant at what he considered was her want of trust in him. He thought that she ought to understand that the thing she so abhorred was as repulsive to him as to her, and he had confidence in himself. Robert had underestimated the power of the king; that was the trouble, and Elinor knew it. It was not long before he also realized what it really meant.

Strang sent for him one day and in wonder he obeyed the summons. What, he asked himself again and again, could the king possibly want of him? He was a hard working youth and had paid not



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much attention to the business of the island, as his fishing boat had taken the most part of his time. He liked the water and he loved the glad free life.

The king looked at him searchingly as he was shown into his presence and motioned him to be seated. "Our business may take some time," he added. Then silence fell for a few moments. Robert was becoming uneasy under the close scrutiny of the man. At last the latter spoke: "I need more men around me and I have decided that young men are perhaps better fitted to make the laws of our land than old ones, so I have decided to make you an elder."

Robert was surprised, but remembering what had happened to many of the elders, he had no desire whatever to become one. It would not do, however, to answer in that manner, so he said quietly, "I thank you for your confidence in me but, indeed, I am not capable of doing what you ask nor have I a great enough degree of piety to be an elder. I am perfectly content to be simply a fisherman."

But if he had any thought that Strang was to be thus balked he was mistaken. "I appreciate your modesty," said the king in a voice that sounded sarcastic, "but I am the best judge of the people I wish to confer honor upon and you are one of them. Then there is another thing.

As an elder you must be a married man. I have thought of this and have selected a wife for you."

The mind of the younger man was working fast now. He began to see method in the other's plan. Was he only trying to add one more bitter drop to Elinor's already overflowing cup? His mouth shut in a determined manner. "I have no wish to marry," he answered shortly. "Indeed, I may not be able to give a wife the comfort I should want her to have if I had one."

The king smiled. "I think differently, and I want you to present yourself at the tabernacle this day week and be sealed to Huldah Main. It has already been one year since she lost her first husband and she is a very capable woman, worthy of a second."

The face of the young man grew white. The woman mentioned was many years his senior, cross-eyed and repulsive. He told himself that he would die rather than marry her, but the king was watching him closely and he fought for self-possession. He must have time to think. "You will be greatly honored also, young man, for at the same time I mean to take another wife."

"Do you?" asked Robert, dully. His voice sounded strange, even in his own ears.

"Yes, you see I have but four wives, for the first Mrs. Strang took herself off as you know. I expect Charles will be a bit jealous of this new one but that will do her good." (Charles was his favorite wife, so called because she often accompanied him on his preaching tours dressed as a man and addressed as Charles Douglas).

Robert made no reply. What did he care about the king's wives? He was longing to get out in the air where he could breathe and think.

"You do not seem interested, and yet I am sure you know the lady," smiled the king, "therefore I will tell you; the new Mrs. Strang is one Elinor Brandon. At last she will be taught obedience."

Robert clenched his hands until the nails cut into the flesh. His brain reeled. As he arose he felt as though he was stifling and he feared he could not control himself much longer, yet to do otherwise might be to dash every possible chance of saving Elinor. So he said, coolly, "Is that all you want of me?"

"That is all; you may go now but do not forget this day week."

"I will not forget," was the answer in a voice that even Strang could not fathom.

(To be continued).

A PATRIOT.

BY LURA WARNER CALLIN.

My Papa is a soldier,
I wish I were one, too.
I can't see why being a girl
Should hinder much, do you?

For I can wave our Bonnie Flag
And shout, Hip-Hip-Hurrah!
And on the Thirtieth of May
I march along with Pa.

Dressed in my lovely uniform
With red stripes up and down—
And on my head a bright blue cap
With white stars 'round the crown.

I help to strew the lovely flowers
O'er all the soldiers' graves,



A G. A. R. Post's Mascot.

And lay a wreath beside the flag
That at each headstone waves.

But when I hear those dreadful guns
Bang out the last salute,
(I run and hide!)
You see, to real war I'd send
My Pa as substitute.

GLENNA AND THE CONSCIENCE FAIRIES.

BY HELEN MATHIE.

Glenna's fat, short legs were wading through the grass of papa's meadow, now nearly ready to be cut for hay. Her white sun-bonnet hung down her back, and the sun beat upon her curly golden hair. She had "runned away," having been forbidden to leave the nice large yard about the house, alone. Gleeefully she trudged along until the chubby legs grew tired, then down she sat and began to pull the grass and flowers toward her breaking them from the stems. First, a daisy, with its white crown and golden heart, then some buttercups, nodding on their slender stems, now some round red

clover blossoms, and some dainty sweet alsike blooms, and a spear or two of blue spear grass.

One chubby dimpled hand was full, and she rested it in her lap, while she gazed about her. All about her the grass and flowers waved, waved, waved, and sung, sung, a low sweet song, like mamma, rocking, rocking, rocking, singing, singing, her baby girl to sleep.

"What was mamma doing now?" Glenna thought lazily. "Was supper most ready, and had papa come in from the barn to help eat it. Glenna must go home pretty soon, but how nice to hide in the tall grass. Could mamma find her. Glenna was playing 'hide and coop' with mamma. Would mamma hear her if she 'cooped' real loud?"

All at once Glenna sat up very straight and rubbed her eyes. The red clover blossoms in her lap had straightened themselves up and looked like fat little men with green jackets and very red faces and funny red rumpley hair. The buttercups were pretty little ladies with airy yellow skirts. The daisies were little old women with white hair, and the blue spear grass had changed to little soldiers in blue uniform and a green spear.

Glenna gasped in astonishment when one of the jolly little red-faced men began to speak. "Hello Glenna," he said, "did you know it was naughty to run away?"

Glenna looked at him shyly. "No," she said, "what hurt does it do?"

"Ask Mother Daisy over there," said the clover man.

Glenna did not ask, but Mother Daisy came near and said in a funny little voice like the wind through the leaves, whispering: "What hurt does it do? Why, I am surprised that you don't know. What if nobody could find you, and what if you couldn't find yourself? You would have to stay here always and there wouldn't be any supper to eat, nor any nice soft bed to sleep in, and no light but the moon and stars, and no company but the crickets, and toads, and mice."

"Ough," cried Glenna shuddering.

"And that isn't all," said Mother Daisy, "Buttercup, you tell her the rest."

Buttercup came forward, her yellow skirts fluttering. "Little girls' mammas are frightened when they find their little

girls gone, and they run up the road, and down the road, and they wring their hands, and cry, "Oh, where is my baby? My baby is lost. Oh, what shall I do?" and they call papa, and the men at work, and they all go hunting for the lost baby, down by the river, and in the woods, and down the road where the automobiles go."

"Does my mamma feel like that?" asked Glenna, her chin quivering. "Won't they look in the meadow? Oh, I didn't mean to make my mamma feel bad. I'll go straight home."

"No, you can't," said the blue soldier men, advancing with their spears. "Little girls that run away have to be punished. We will keep you here, and by and by you will turn into a Lady Buttercup, and when you grow old into a Mother Daisy."

"Oh, who are you?" cried Glenna in tears.

"We are the Conscience Fairies, come to tell you when you have been naughty. When you have lived with us a hundred years, if you are very good, we will turn you back into a little girl again, and send you to live with some good papa and mamma, and see if you will run away again."

"Won't it be my own papa and mamma?" asked Glenna.

"Yes," said the soldier men, "but not the ones you have now."

"Oh, I want my own papa and mamma. I will have my own papa and mamma," Glenna cried in great distress. She started to run and the soldier men advanced upon her with spears poised. "Oh! Oh! Oh!" screamed Glenna, and then someone's tender arms clasped her tight, and a dear voice said with a tremble in it, "Mamma's own darling little girl asleep in the grass. Why, papa, her dress is quite wet. The dew is falling. Take her, papa, and hurry home. Mother was so frightened, darling. Glenna must not run away again. There are your flowers, pet, all wilted. We will put them in water when we get home."

"No, no, mamma, throw them away. They are the Conscience Fairies and they told me what a naughty girl I was, and the spear men were going to turn me into a buttercup to punish me. Throw them away. I don't want them any more. I'll never run away again long's I live."



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Woman and Her Needs

At Home and Elsewhere

May-Day Festivities—By Marjorie March.

THE month of May is a beauty time indeed, and the hostess who takes of her bounty can not go far wrong, for decorations are easy to plan and there are many delicious morsels for the table which come from southern gardens, not too far away to make them possible luxuries for the table of cheer.

Our illustrations show two dainty centerpieces for May. One is a lattice built of light wood, over which leaves are twisted, while little cakes are wired on to look like actual blossoms. This is a novel fancy that would be very appropriate for any springtime festivity, but particularly so for a Japanese festival. The other picture shows a May-day cake which is not difficult to plan and is decidedly effective. A frosted cake has a pole erected in its center from which ribbons drop to the hands of little Dresden china figures which seem to dance about the May pole. A little delicate green outlines the centerpiece or a wreath of flowers could be used if desired.

A Dresden Party.

A Dresden luncheon is a fancy that is very dainty and one not too hard to carry out, even where the pocket book must be consulted. Use the centerpiece suggested above, with the Dresden china figures, and for the rest of the table setting use china decorated with pink flowers. This can be as cheap as is desired but should be of dainty design. For bonbons, cakes, etc., use either dishes with Dresden china figures standing beside them or little baskets in soft pink and blue tones, tied with bows of pink and blue ribbon. For place cards have paper dolls softly tinted in pink and blue. These little ladies may have scarfs in their hands, also tinted delicately, with the guests' names written upon the scarfs.

At the four corners of the table low bowls of either pink or blue china hold apple blossoms.

After luncheon, which should consist of dainties in softly tinted shades as far as possible, some games may be played, either contests written on cards decorated with "Dresden china figures" or on cards cut in the shapes of flowers.

A Japanese Party.

For a centerpiece use the lattice May day design and at the four corners of the table have small Japanese paper lanterns,

any imagination. The table may be bare of cloth, with Japanese paper doilies of quaint design under the plates, and at each place a little Jap doll or any other preferred favor. For refreshments serve candied fruits, chicken soup with rice, a fish salad, tea and wafers and either ice cream with cakes or plum preserves and sweet wafers. Another dessert that is dainty is made with rice and sweetened milk and gelatine, piled high with whipped cream flavored with any desired flavor.

For amusement after luncheon, if the guests wish to be out of doors there are croquet, the game of quoits and battle-dore and shuttlecock, any of them sufficiently suggestive of the Orient to give the right tone to the party. If indoor amusements are desired the guests may have a competition, painting cards cut either in the shape of lanterns or fans. Have a time limit and at the end of the time award some prize to the one who has done the most artistic work. There can also be a contest, after the manner of the old, well-worn donkey game. Have a picture of a Japanese lady hung at one end of the room. Give each guest a fan made of paper, wallpaper answers the purpose well, and a pin, and let him try to pin a fan to the hand of the Japanese lady. The one who is most successful could be given a pretty paper fan, or if it be a gentleman, a stick pin of curious design.

Below are some recipes suitable for the springtime.

Creamed Shad Roe.

Melt two tablespoonfuls of butter, add one teaspoonful of chopped onion and cook. Then lay in this a shad roe which has been parboiled first and separated into small pieces, sprinkle over with flour, pour on gradually a cup of thick milk, cook for a few minutes, then add one egg yolk, beaten, and season with salt and pepper. This is delicious served on slices of toast or in scooped out buttered rolls, browned in the oven.

Banana Snow.

Sprinkle four bananas with a bit of lemon juice and a few drops of ginger flavoring and chill well. Just before serving mash them smooth, pour over them a cup of powdered sugar and the beaten whites of two eggs. Beat all together

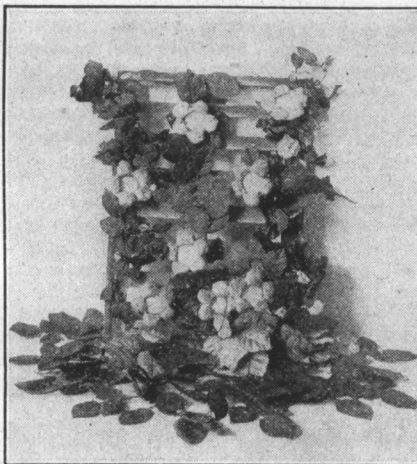
into small squares and frost with tinted frosting.

Shrimp Salad.

Make a stiff mayonnaise, add some gelatine and the contents of a can of shrimp cut into small bits. Set to harden in a mold and serve, cut in uniform slices, on lettuce leaves.

The May cakes may be iced to represent different flowers and are very dainty to send in wee crepe paper May baskets, after the New England custom. For instance, ice some cakes pink and set a rose of candied rose petals on top of each with a little candy in the center of each. For violet cakes, ice with pale green frosting and stud with candied violets. For daisy cakes, ice pale yellow, leave a little circle in the center of each cake and carefully put on "petals" of white frosting. In the same way blackeyed Susans can be made, frosting the cake with chocolate and putting on petals of yellow frosting.

Another pretty fancy is to bake loaf cakes in oval pans, scoop out the center and fill with whipped cream. Make a handle of pastry baked over a round



A May-day Arbor of Frosted Cakes.

surface to have it the right shape and insert this carefully over the cake basket, twisting the handle with delicate green vines. This makes the most dainty dessert imaginable.

Asparagus Souffle.

Use the tops of asparagus cooked previously, cut up in a thick cream sauce to which is added salt and pepper. Beat the yolks and whites of two eggs separately, adding the yolks first, and lastly folding in the whites. Bake in a buttered baking dish and serve at once.

Coffee Souffle.

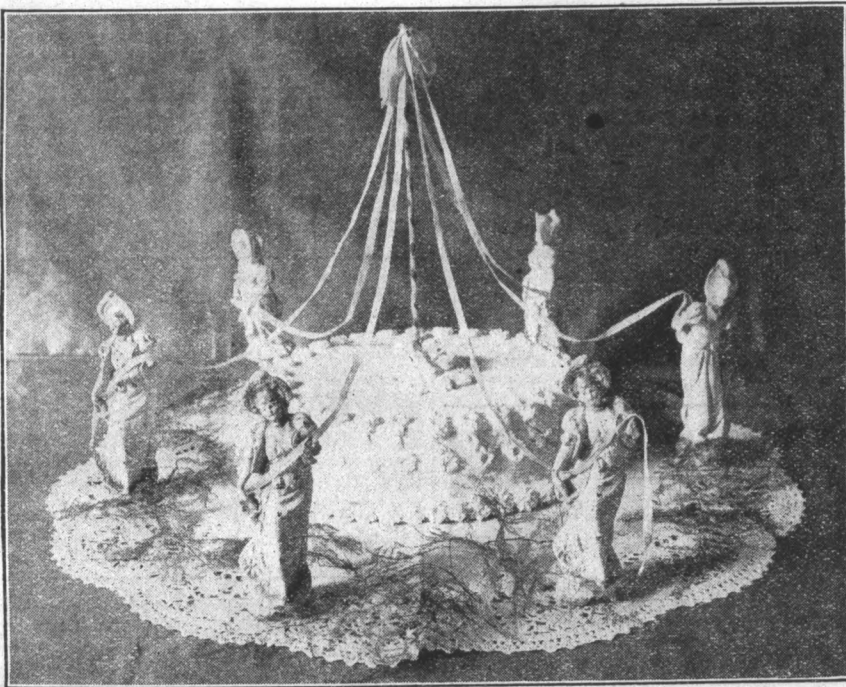
Take two pints of milk and heat in a double boiler with a pint of coffee. Thicken with corn starch and add to this three tablespoonfuls of powdered sugar and a little of any preferred flavoring. Let simmer gently for ten minutes and whip into it a pint of cream with the yolks of three eggs. Then add the beaten whites of the eggs, fill baking dishes or paper cases with the mixture and when done sprinkle powdered sugar over the top and serve at once. These paper cases can be made in the shape of flowers if desired and are then dainty enough to serve at any function, even a May wedding or any special occasion of cheer.

Nut Cake.

Cream one cupful of granulated sugar and a half cup of butter and add gradually one cup of chopped nuts. Add a beaten egg and one and a half cups of flour with two tablespoonfuls of baking powder, alternating with a half cup of clear strong coffee. Bake in a moderate oven and frost with Mocha or chocolate frosting.

Orange Delight.

Make an orange ice by boiling four cups of water and two cups of sugar together for 20 minutes, adding two cups of orange juice, half a cup of lemon juice and the grated rind of an orange, and freezing. Serve this in tall-temmed glasses and garnish with slices of banana, canned cherries and bits of chopped nuts. Serve tiny cakes or thin wafers with this confection.



A Maypole Cake.

filled with apple blossoms, lilac blooms or any preferred flowers. Use Japanese china and at the places have finger bowls of softly tinted glass and, besides each bowl, a box of the little wood pulp flowers which can be bought for a few cents. These open when put in water and by the way in which they expand, their color or beauty or ugliness, a fanciful fortune can be woven by a hostess with

until the mixture is stiff. Keep very cool until desired when it can be served in glasses or with lady fingers.

May Cakes.

Beat one whole egg and the whites of two eggs until thick; add slowly one-half cup of granulated sugar and one-half cup of flour with a half teaspoonful of baking powder, one tablespoonful of melted butter and some rose flavoring. Bake, cut

FEED YOUNG GIRLS

Must Have Right Food While Growing.

Great care should be taken at the critical period when the young girl is just merging into womanhood that the diet shall contain that which is upbuilding and nothing harmful.

At that age the structure is being formed and if formed of a healthy, sturdy character, health and happiness will follow; on the other hand unhealthy cells may be built in and a sick condition slowly supervene which, if not checked, may ripen into a chronic condition and cause life-long suffering.

A young lady says:

"Coffee began to have such an effect on my stomach a few years ago that I finally quit using it. It brought on headaches, pains in my muscles, and nervousness.

"I tried to use tea in its stead, but found its effects even worse than those I suffered from coffee. Then for a long time I drank milk at my meals, but at last it palled on me. A friend came to the rescue with the suggestion that I try Postum.

"I did so, only to find at first, that I didn't fancy it. But I had heard of so many persons who had been benefited by its use that I persevered, and when I had it made right—according to directions on the package—I found it grateful in flavour and soothing and strengthening to my stomach. I can find no words to express my feeling of what I owe to Postum!

"In every respect it has worked a wonderful improvement—the headaches, nervousness, the pains in my side and back, all the distressing symptoms yielded to the magic power of Postum. My brain seems also to share in the betterment of my physical condition; it seems keener, more alert and brighter. I am, in short, in better health now than for a long while before, and I am sure I owe it to the use of your Postum." Name given by Postum Company, Battle Creek, Mich.

"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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crêpe of highest quality; the designs are artistic

masterpieces in exquisite color combinations that captivate fastidious women, while white, black, gray and all the rich and effective tints make Serpentine Crêpe of greatest use for all the family, all the time. The crinkle is permanent. It will neither wear out, wash out, nor stretch out.

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WHEN writing to advertisers just say "Saw your ad. in the Michigan Farmer."

FASHION'S FANCIES.

Not for several seasons have the hats been so really becoming as this spring. Just at present the most one sees worn are the coarse turbans of Jap or Ramme braids, though later the fine Milans, Leg-horns and hemp hats are to be worn. High crowns are the rule, though there are some with low crowns and brims of the same height, or nearly as high. The high crowned hats are of the coarse straw, while the low crowned ones are more often of the fine.

Two-toned effects are very good. There are burnt straw crowns with low rolling black brims, white crowns with black brims and black crowns with white brims. For these early tailored affairs, no better trimming has been found than a stiff velvet bow. A few show flowers, but they are more for the dress hat. One smart looking hat recently shown was of fine black straw, with a high crown, and a wreath of delicate pink rosebuds around the narrow brim.

No season is complete without a few freak names, and this year we have the beehive hat for young women and the Topsy hat for girls. The beehive needs no description beyond its name. The crown is shaped as the name implies and has a narrow brim. These are often of two-toned straws, burnt and black being favorite colors. The Topsy has a high round crown with a narrow rolled brim, and is either of Milan or Jap straw.

For the dress hat the Gainsborough is very good. Everything rolls off the face. Flowers will be used in profusion, especially combinations of small posies in wreaths. In this way, everything will be used together from lilacs to tiny roses. Willow plumes will be seen, too, as well ostrich feathers and aigrettes.

As for colors, they will be the same as in suits, black, black and white, Empire green, which is a vivid Emerald green, king's blue, leather shade, coral as a trimming, and brown a very little when combined with a lighter color.

AN ARGUMENT AGAINST HARDWOOD FLOORS.

POLISHED floors are a luxury. They should never be put into the homes of the woman who does her own work." So writes a girl to the Household Department. "When I came home from college, I gave mother and father no rest until they had hardwood varnished borders put around the downstairs floors, disposed of the good old carpets and bought new rugs. I promised to keep the floors clean myself, and mother has seen that I kept my word. I do not dare complain at home, I had so much to say before the change was made, but if we had only kept those carpets I would not go to bed tonight until they were securely nailed down to the floors. And no one would ever hear me ask for polished floors and rugs again."

Iconoclasts do not always agree, but here is one who is fighting my warfare. Long have I wanted to cry out upon the modern varnished floor, but have lacked the courage of my convictions. Learned writers and domestic science experts have told us so positively that carpets were a menace to life and that rugs and bare floors were the only thing from a hygienic standpoint, that I have never dared voice a protest against them, but now that a girl writer to this department has blazed the way, I must lend my support.

Perhaps the modern way could be made more hygienic than the old, but the way housework is done in the average home, the home of one maid or none, this way of caring for floors is no more sanitary than the old. To be really better, the rugs should be taken up every week and thoroughly dusted, or else cleaned with the vacuum cleaner, and the floors wiped free of dust every day. But is there a home where this is done? What woman has the strength to drag three or four 9x12 rugs out on the line each week and whip them, or if she has the strength, where is she to find the time to do this and wipe up the borders of each room daily? And it is only by going over each day the floors which are much used, that they can be kept looking well, and our germ fighting friends may be satisfied that we are allowing no dust on our floors. To care for the floors as they should be cared for would mean practically a morning's work for one person.

In the average home such a procedure is, of course, impossible. The rugs may be taken up once a month, but usually they come up only twice a year, just like mother's carpets. The floors, possibly,

are dusted every other day, probably, not more than twice a week, and in some homes only once a week when the cleaning woman comes. The house mistress makes a few passes with the carpet sweeper over the rug each day and sweeps it once a week, and that is the only attempt made at removing dust, unless she owns a vacuum cleaner.

I will leave it to any intelligent jury of housekeepers to decide whether such a system is any better for the lungs of the family than the old way of carpets which came up twice a year. Certainly it is not half so restful to the nerves, for with the carpets we never saw the dust which rolls to the sides of the rooms out of the way of that sweeper. Certainly it must have been there, the bare floors now show it to us. But we did not have it in sight, irritating us on the days we simply didn't have time to get at it and clean it up, as we do now. I don't believe a woman lives who can do all the work for a family of four or five and keep the dust always cleaned up from her polished floors. If such a woman does live I hope I'll never meet her. She would be so affected by her constant warfare with dust, I'd expect her to begin brushing specks off my clothes.

Seriously, I think the varnished floors very much overrated. Certainly they do not lighten woman's daily work and I doubt very much if they are a bit more sanitary as cared for in the average home. The only advantage they possess, to my mind, is that we can pick the rugs right up at housecleaning time without stopping to remove tacks.

I should like to know what some of the women who have tried both sorts of floor coverings actually think of the matter.

DEBORAH.

THE SUNDAY DINNER.

Tomato Bouillon	Wafers
Celery	Gherkins
Fried Perch	Sauce Tartare
Mashed Potatoes	String Beans
Dandelion Salad	
Lemon Tarts	

Tomato Bouillon.—Melt two tablespoons of butter and cook in it two tablespoons each of chopped onion and green pepper, for five minutes. Add one quart of tomatoes, one spring of parsley, one bay leaf, two tablespoons of horseradish, two cups of stock salt and pepper to taste, and cook 20 minutes. Strain and serve.

Fried Perch and Sauce Tartare.—The perch should be dipped in flour, egg, and fine bread crumbs, after being carefully cleaned and washed inside and out, and then fried in deep fat. Drain well before serving. For the sauce, add to a cup of mayonnaise or boiled salad dressing one tablespoonful each of finely chopped cucumber pickle, olives, capers, a teaspoon of chopped chives and half a tablespoon of minced parsley.

Dandelion Salad.—One cup of cold cooked dandelions, four hard-boiled egg yolks, one tablespoonful olive oil, two tablespoonfuls vinegar, speck of cayenne pepper. Chop dandelions and eggs together, mix thoroughly and add the blended oil, vinegar and cayenne. Form in balls and serve on lettuce leaves with boiled dressing.

Lemon Tarts.—Bake tart shells on inverted patty tins and fill with your favorite lemon filling. Cover with pie frosting and brown slightly in the oven.

SHORT CUTS TO HOUSEKEEPING.

To put woollens or furs away safe from moths, take a common wooden box not too heavy, a soap or cracker box will do if one has no packing box, make a good flour paste, cooked, and line the box with newspapers, pasting one over the other; put in your clean woolen goods or furs, paste on your cover, let dry, and keep in a dry, airy place—the attic is good. If no moths go in with your goods they will come out perfect. A flour barrel will do if you have no box, and you can paste fancy paper over the outside of either, if you wish to ornament it. Or if preferred, bags of strong, new unbleached muslin may be made, and the furs or goods sewed up in them.—I. M.

Get a package of dye, mix with hot water, and apply to the floor with a scrubbing brush. When it is thoroughly dry put on a coat of varnish and you will be surprised at the floor finish. An advantage in this is that you can make a stain to match furnishings or carpets. Remove any paint spots with sandpaper before applying the dye.—Mrs. J. J. O'C.



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M. V. McInnes
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C. A. Laurier, Marquette, Mich.

MARKETS

DETROIT WHOLESALE MARKETS.

May 17, 1911.

Grains and Seeds.

Wheat.—The weather appears to be the most varying factor in the wheat trade, prices becoming strong when dry days threatened the crop in the west and southwest and weakened when copious rains, early this week, soaked the parched lands. But with the change for a better crop, sentiment abroad, where consumption is reducing the visible supply fast, competition is strong and the supply from Russia and other countries does not quiet the apprehensions of buyers, is such as to keep quotations here from making any sensational declines, the quotation for No. 2 red on Tuesday of this week being but a half cent below the price for the same grade on Thursday last. Millers are not anxious buyers although the supply of flour on hand is said to be the lowest in several years. The price for No. 2 red wheat on this date in 1910 was \$1.12 per bu. Quotations for the past week are:

	No. 2	No. 1	Red.	White.	July.	Sept.
Thursday	.....92	.....90	.....89	.....89	.....89	.....89
Friday	.....92½	.....91	.....90	.....90	.....90	.....90
Saturday	.....92½	.....91	.....90	.....90	.....90	.....90
Monday	.....92	.....90½	.....89	.....89	.....89	.....89
Tuesday	.....91½	.....90	.....89	.....89	.....89	.....89
Wednesday	.....91½	.....90	.....89	.....89	.....89	.....89

Corn.—Prices are closing this week at an advance over a week ago and the average is also higher. The dry weather is alleged to be the bullish factor in the deal since the preparation of the soil for the new crop is being hampered and delayed as it should. The rains of Tuesday will no doubt bring hope and perhaps weaken the price. Goods of the better grades are having a ready call, with the demand for other kinds slow. A year ago the price for No. 3 corn was 65c per bu. Quotations for the past week are:

	No. 3	No. 3	Yellow.
Thursday	.....55	.....56	.....56
Friday	.....55½	.....56½	.....56½
Saturday	.....55½	.....56½	.....56½
Monday	.....55½	.....56½	.....56½
Tuesday	.....55½	.....56½	.....56½
Wednesday	.....55½	.....56½	.....56½

Oats.—The dry weather has forced oats to come into the line with the major cereals and show strength along with them. The young plants are suffering rather seriously in Iowa and Illinois and other heavy producing states, and the trade seems inclined to balance the situation by putting quotations up. The rains will likely give much relief and influence lower values. One year ago we were paying 45½c per bu. for standard oats. Quotations for the week are:

	Standard	No. 3	White.
Thursday	.....37	.....36½	.....37
Friday	.....37	.....36½	.....37
Saturday	.....37½	.....37	.....37
Monday	.....37½	.....37	.....37
Tuesday	.....37½	.....37	.....37
Wednesday	.....38	.....37½	.....37½

Beans.—A stronger sentiment pervades the bean deal and nominal values are being advanced. Offerings are not increasing with the better values. Quotations for the week are:

	Cash.	Oct.
Thursday	.....\$1.98	.....\$1.88
Friday	.....2.00	.....1.90
Saturday	.....2.00	.....1.90
Monday	.....2.02	.....1.90
Tuesday	.....2.04	.....1.92
Wednesday	.....2.04	.....1.95

Clover Seed.—Nominal figures are unchanged from a week ago as published by the board. No transactions of importance are being made and interest in the deal is small. Quotations are:

	Prime.	Oct.	Alsike.
Thursday	.....\$9.00	.....\$7.65	.....\$8.75
Friday	.....9.00	.....7.65	.....8.75
Saturday	.....9.00	.....7.65	.....8.75
Monday	.....9.00	.....7.65	.....8.75
Tuesday	.....9.00	.....7.65	.....8.75
Wednesday	.....9.00	.....7.65	.....8.75

Rye.—Rye continues to be on the upward course, having made another advance of four cents for the week, now being quoted at \$1.04 for No. 1.

Timothy Seed.—The new high figure established last week has been maintained with practically no activity. The quotation is \$5.60 per bu.

Flour, Feed, Provisions, Etc.

Flour.—Market is fair with prices steady. Quotations are:

Clear	.....\$4.75
Straight	.....4.65
Patent Michigan	.....4.90
Ordinary Patent	.....4.90

Hay and Straw.—Values for hay have made another advance of from \$1@2 per ton. Straw is steady. Quotations on baled hay in car lots f. o. b. Detroit are: No. 1 timothy, \$22@23; No. 2 timothy, \$19@20; clover, mixed, \$19@20; rye straw, \$7; wheat and oat straw, \$6.50 per ton.

Feed.—Prices are steady with a week ago. Carlot prices on track are: Bran, \$27 per ton; coarse middlings, \$26; fine middlings, \$28; cracked corn, \$22; coarse corn meal, \$22; corn and oat chop, \$20 per ton.

Potatoes.—A steady tone rules the deal offerings being fair and demand ordinary. In car lots Michigan potatoes are selling at 48@50c per bushel.

Provisions.—Family pork, \$18@19; mess pork, \$17; medium clear, \$16@17; smoked hams, 13½@14c; briskets, 10@10½c; shoulders, 10c; picnic hams, 9½c; bacon, 14@15½c; pure lard in tierces, 8½c; kettle rendered lard, 9½c.

Hides.—No. 1 cured, 10c; No. 1 green, 8c; No. 1 cured bulls, 8½c; No. 1 green bulls, 7c; No. 1 cured veal kip, 11c; No.

1 green veal kip, 10c; No. 1 cured murrain, 9c; No. 1 green murrain, 8c; No. 1 cured calf, 15c; No. 1 green calf, 13½c; No. 2 kip and calf, 1½c off; No. 2 hides 1c off; No. 1 horsehides, \$3.75; No. 2 horsehides, \$2.75; sheepskins, depending on wool, 50c@1.50.

Dairy and Poultry Products.

Butter.—There is a fairly liberal amount of butter for the trade, and with the decline of one-half cent at Elgin it was expected that lower values would rule here but last week's figures are unchanged, extra creamery holding at 21c; do., firsts, 19c; dairy, 16c; packing stock, 14c per lb.

Eggs.—Eggs are offered freely and prices have declined a cent since a week ago. Demand is good. Fresh receipts, case count, cases included, are quoted at 15½c per dozen.

Poultry.—Values are identical with those of a week ago, and the market is quiet and easy. Quotations: Dressed—Turkeys, 18@20c; chickens, 15@16c; hens, 15@16c; ducks, 17@18c; geese, 13@14c lb. Live—Spring chickens, 15@16c; hens, 15@16c; old roosters, 10@11c; turkeys, 15@18c; geese, 11@12c; ducks, 15@16c; broilers, 28@30c per lb.

Cheese.—Michigan, old, 17c; Michigan, late, 13@14c. York state, old, 17c; do. late made, 13@13½c; limburger, early, 14@15c; Swiss domestic block, 16@18c; cream brick, 14@15c.

Veal.—Market higher. Fancy, 8@8½c; choice, 7@7½c per lb.

Fruits and Vegetables.

Cabbage.—Higher. Selling at \$2.50@2.75 per crate.

Onions.—Steady. Quoted at \$1.50@1.75 per bushel.

Pineapples.—\$1.75@2 per dozen.

Apples.—The market is active and firm at steady prices. Baldwins, \$6.50@7; Steel reds, \$6.50@7; ordinary grades, \$4.50@5 per bbl. Western apples, \$2.75@3 per box.

OTHER MARKETS.

Grand Rapids.

The potato market is suffering another slump, prices at loading stations dropping off this week to 25@30c and buyers not anxious to take hold at these prices. As to whether the market will recover its strength nobody knows. Eggs are lower, jobbers paying 15@15½c, as compared with 15½c last week. Dairy butter is worth 16c, a decline of 1c, while creamery is off ½c. Live poultry is practically unchanged, with fowls at 12½c; ducks, 13c; turkeys, 16c, and broilers 28c. No. 2 red wheat is worth 88c.

Chicago.

Wheat.—No. 2 red, 96½@98c; July, 88½c; Sept., 87½c per bu.

Corn.—No. 2, 54@54½c; July, 52½c; Sept., 53c per bu.

Oats.—No. 2 white, 35@35½c; July, 33½c; Sept., 33½c.

Barley.—Malting grades, 80c@1.00 per bu; feeding, 65@75c.

Butter.—Receipts continue in excess of actual requirements and the market has a weak undertone. Prices, however, show no change from last week. Quotations are: Creameries, 16@21c; dairies, extra, 18c per lb.

Eggs.—Unusually heavy receipts have congested this market. Prices have sagged 1½c since this time last week but this sharp reduction appears to have had little effect upon the demand. Quotations are: Prime firsts, 15½c; firsts, 14½c per doz; at mark, cases included, 12½@13c per dozen.

Potatoes.—With 123 cars of potatoes received on Monday of this week, nearly half of which were new stock, prices fell rapidly and are now quoted 13c lower than at this time last week. Market is easy with new selling at 90c@1 per bu. for good to choice stock. Quotations on old potatoes are: Choice to fancy, 43@45c per bu; fair to good, 40@42c.

Beans.—A sharp decline in the offerings has put prices on a higher level. Pea beans are up 10c on all grades, while red kidneys are quoted \$1 higher. Choice hand-picked pea beans quoted at \$2.05@2.15 per bu; prime, \$1.95@2.05; red kidneys, \$4@4.25 per bu.

Hay and Straw.—No change in hay values, market ruling firm. All grades of straw about 50c lower. Quotations: Choice timothy, \$21.50@22.50; No. 1 timothy, \$20@21; No. 2 do. and No. 1 mixed, \$18.50@19.50; No. 3 do. and No. 2 mixed, \$15@17; rye straw, \$9@9.50; oat straw, \$7@8; wheat straw, \$6@7 per ton.

Boston.

Wool.—London sales for the week have shown usual strong features and bidding for the offerings was spirited, closing out the supply at steady prices. In this country contracts closed between brokers and growers show from steady to higher values ruling. Most of the activity is in the west, little attention as yet being given the fleece states. Old Michigan fleeces are now in the lime light and appear to be occupying the greater part of the attention. Following are the leading domestic quotations for old goods: Ohio and Pennsylvania fleeces—Delaire washed, 30c; XX, 28@29c; ¼-blood combing, 26c; ¾-blood combing, 24½@25c; ¼-blood combing, 23@24c; delaine unwashed, 24c; fine unwashed, 18@19½c. Michigan, Wisconsin and New York fleeces—Fine unwashed, 17½@17½c; delaine unwashed, 23c; ¼-blood unwashed, 25c. Kentucky, Indiana and Missouri—¾-blood, 25c; ¼-blood, 23c.

New York.

Butter.—The general tendency toward weakness and lower values in the butter markets of the country has affected prices here, creameries being quoted 1c lower. The market is reported steady at the lower range. Creamery specials are quoted at 22c; extras, 21c.

Eggs.—All grades from 1@2c lower. Market weak. Fresh gathered extras, 19c; firsts, 16@17c; seconds, 15½@15¾c; storage packed, firsts, 17½@18c.

Poultry.—Live. Western spring chick-

ens, 24c; fowls, 14½c; turkeys, 13c. Dressed—Fresh killed turkeys, 13@16c; fowls, 13½@15½c.

Elgin.

Butter.—Market firm at 21c per lb., which is a half cent below the quotation of last week. Output for the week, 687,300 lbs., as compared with 603,700 lbs. for the previous week.

THE LIVE STOCK MARKETS.

Buffalo.

May 15, 1911.

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

Receipts of stock here today as follows: Cattle, 150 cars; hogs, 14,400; sheep and lambs, 17,000; calves, 2,250.

With 28,000 cattle reported in Chicago today, and with 150 cars here, our market, quality and all things considered, is just about 10c higher than last week. Of course, there were several bunches of cattle that sold more than that higher than anything sold last week, but the quality of the cattle was a guarantee of the price, for there was some of the finest cattle here today that has been shown in the last 30 days.

We quote: Best 1,350 to 1,500-lb. steers, \$6.25@6.50; good prime 1,200 to 1,300-lb. steers, \$6@6.20; best 1,100 to 1,200-lb. shipping steers, \$5.50@6; medium butcher steers, 1,000 to 1,100 lbs., \$5.25@5.50; light butcher steers, \$4.85@5.10; best fat cows, \$4.50@5.25; fair to good do., \$3.25@3.50; common to medium do., \$3.25@3.50; trimmers, \$2.60@3.10; best fat heifers, \$5.50@5.85; good do., \$5@5.35; fair to good do., \$4@4.65; stock heifers, \$4.25@4.50; stockers, all grades, \$5.25@5.50; best feeding steers, dehorned, \$5.30@5.45; common feeding steers, \$4@4.25; best bulls, \$5@5.25; bologna bulls, \$4@4.75; stock bulls, common to good, \$3.50@4; best milkers and springers, \$5@6; common to good do., \$2.50@4.

The hog market ruled generally strong to a nickle higher than the close of last week. Pigs and best quality yorkers selling from \$6.65@6.70, while the mixed hogs sold principally from \$6.60@6.65; the bulk of these running to the lighter weights at the latter price. Heavier weights sold \$6.30@6.55, according to weight and quality. Trade ruled fairly active throughout the day on all the handy mixed grades and lighter weights, but slow on the odd bunches of heavier grades. Rough sows sold mostly around \$5.50@5.55; stags, \$4.25@5. Hogs are well cleaned up; market closing steady at opening prices.

Lamb market opened active today; most of the choice handy lambs selling at \$6.40@6.50. Look for shade higher prices the balance of the week unless receipts should be heavy. Sheep market was a little more active today; most of the choice ewes selling at \$4@4.25; wethers, \$4.50@4.70. Look for about steady prices on sheep the balance of the week.

We quote: best handy lambs, \$6.40@6.50; heavy lambs, \$5.35@5.50; bucks, \$3@3.50; ewes, \$4@4.25; yearlings, \$5@5.25; wethers, \$4.50@4.70; cull sheep, \$4@4.50; veals, choice to extra, \$7.25@7.50; fair to good do., \$5.50@7; heavy calves, \$3.50@4.50.

Chicago.

May 15, 1911.

Cattle. Hogs. Sheep.
Received today25,000 40,000 20,000
Same day last year.....21,484 28,536 20,598
Received last week.....49,731 114,843 74,563
Same week last year.....41,397 94,148 59,170

This is a hot Monday, and lots of dead hogs are being taken from overloaded cars, heavy ones dying the fastest, as usual. There is a great scarcity of light hogs, and prime sold up to \$6.45, the general market being steady, following last week's rise of 30@35c. Hogs are selling all the way down to \$5.95@6.10 for the rougher heavy lots. The arrivals last week averaged in weight 239 lbs., compared with 243 lbs. a week earlier, 246 lbs. a fortnight ago, 237 lbs. a year ago and 215 lbs. two years ago. The intense heat caused cattle to drink a great deal of water, and this resulted in buyers bidding a little lower figures, especially for heavy beefs. Some sellers called prices about a dime lower, while quite a number said they sold their cattle at steady prices. An exceptionally choice lot of heavy Angus steers sold for \$6.35, the best sale at a late hour. Sheep and lambs were rather active at steady prices, following general advances last week of 10@15c. Woolled lambs were salable at \$6@6.65, as high prices as have been paid this year at any time, while shearing lambs were wanted at \$5.25@5.75 to ship to feeding districts. Shorn stock sold on the following basis: Lambs, \$5.60@6 for good lots and \$5@5.50 for heavy lots; ewes, \$3@4.40; wethers, \$4@4.65; bucks, \$3@3.50; yearlings, \$4.40@5. Spring lambs were scarce and wanted.

More satisfactory conditions have been seen in the cattle market recently, buyers taking hold as a rule somewhat better than a short time ago, and the former pronounced weakness has received a check. It must be admitted, however, that trade requirements are still below normal, owing to the continued high prices for beef in the retail markets of the country, and any considerable increase in the receipts would force renewed declines in values. The course of the market last week was not regular, prices ruling alternately higher, lower and then higher again, leaving quotations not greatly changed compared with a week earlier, although fat butcher stock sold generally better. Beef steers sold chiefly at \$5.50@6.20, the commoner lots of light weights selling at \$4.90@5.25 and the choicer lots of shipping beefs at \$6.15@6.45. A medium to pretty good class of steers found buyers at \$5.50@5.75, while good killers brought \$5.80@6.15. Export cattle were in limited demand at \$5.60@6.10, and good to prime yearlings sold for

\$5.75@6.35. Plenty of good fat cattle arrived on the big days, Monday and Wednesday. Butcher lots of cows and heifers had a good sale at \$3.40@6.25 for fair to fancy, while cutters sold at \$2.80@3.35, canners at \$2.25@2.75 and bulls at \$3.25@5.50. Calves were active and higher, selling at \$6@7 per 100 lbs. for desirable vealers and all the way down to \$3@5 for the less desirable offerings. The stocker and feeder branch of the market was as active as could be expected at a time when the farmers were busy in seeding and planting, stock steers going at \$4@5.35, feeders at \$4.85@5.60 and stocker and feeder heifers at \$3.40@4.75. Reports from all over the country state that there is a big demand for breeding cows, and the few that are for sale bring stiff prices. There is also a steady demand for stock calves that are well bred, and these sell comparatively high. Milksters and springers are in better demand for shipment to dairy sections at \$30@65 per head, and farmers are making larger purchases than usual. Plenty of ordinary and medium grade cows are offered, but high-grade Holsteins are scarce and high.

Hogs have been marketed quite recently in considerably decreased numbers, as farmers were busy with spring work, and prices had several rallies, as smaller offerings resulted in more active competition among buyers. Otherwise conditions have not changed perceptibly, and sentiment among the packers is as bearish as ever. There are large supplies of matured hogs that must be marketed shortly, and it seems almost certain that a return to recent liberal receipts would force declines in prices. The hogs marketed are as fat and choice as ever, and the only complaint heard generally is that far too few thin, light-weight bacon hogs and pigs are showing up, the scarcity resulting in sales of such at a liberal premium, while the extra heavy hogs sell lowest of all. Still the spread in prices is very much narrower than it was several weeks ago. Fresh pork is having a good sale, despite the warm weather, it being the cheapest of meats, and this helps the sale of choice young hogs. Provisions are exported far more liberally than a year ago, when pork sold about \$7.50 per barrel higher and other hog products proportionately higher, but the domestic consumption would be much larger if retail prices were lowered. When May opened five leading western markets held aggregate stocks of 289,036,000 lbs. of provisions, compared with 122,212,000 lbs. a month earlier and 165,861,000 lbs. a year ago, but stocks were 16,000,000 lbs. less than two years ago.

Sheep and lambs sold to much better advantage last week, with marked reductions in the offerings and a consequently improved outlet, some good advances in prices taking place. Woolled Colorado lambs went at the highest prices of the year, and some consignments of spring lambs sold extremely well, the first of the season from Kentucky showing up. A few feeding lambs were received and sold at strong prices, the demand exceeding the supply at all times. Nearly all the sheep were shorn.

Horses failed to sell satisfactorily much of the time last week, the choicer animals excepted, and numerous sales took place at further reductions of \$5@10 per head. There were too many inferior horses of the class selling at \$85@150 and not enough of the \$250@300 class. Wagon horses and drivers weighing 1,200 to 1,400 lbs. were good sellers at \$185@240, with no large sales of wagoners as high as \$2.00. Armour & Co. paid \$505 for a pair of choice greys that aggregated in weight 2,500 lbs. There was a marked falling off in the receipts of horses.

LIVE STOCK NOTES.

The markets have been bountifully supplied with veal in recent weeks, as a result of the heavy marketing of calves from the dairy districts of Wisconsin, Michigan, Indiana, Illinois and other states of the middle west, and this has exerted an unfavorable influence on other meats. These are times when calves that are adapted for making good beef cattle should be well fattened, but most of the dairy calves are not of this kind. Well-bred calves are in great demand in some sections for making "baby beef."

Reports from most parts of the range country are that there will be an average lamb "crop," although some regions are not doing so well. Most sheepmen cut down their flocks materially last year, when the drought compelled them to make large shipments to market, and their holdings were culled so thoroughly that only the best breeders were retained. The sheep were strong and able to withstand the winter, and, fortunately, the season was unusually mild, so that losses were remarkably small. It is estimated that the number wintered was at least 20 per cent smaller than a year earlier, and some estimates make the number 25 per cent less than a year ago. The ranges are now in good shape, and grass is good, recent good rains having revived the pasturage.

Stockmen who have returned to breeding and rearing hogs for the market are considerably annoyed by the published reports in the papers of the country wherein certain packers are quoted as predicting a drop of hogs to a \$4 basis later on. It was such unsatisfactory conditions that brought about more than any other cause, the great decline in the hog raising industry in recent years and later sent prices for hogs up to unprecedentedly high figures. Now that farmers are again taking up the industry it is hard to believe that the packers will again pursue a course calculated to restore the former scarcity of hogs.

FOR SALE CHEAP.—One 7 foot mower with extra blade, one tedder, one rake and one loader. In use only a short time. Absolutely as good as new. Address, W. BARRETT, Michigan Steel Boat Co., 1226 Jefferson Ave., Detroit, Mich.

THIS IS THE LAST EDITION.

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

DETROIT LIVE STOCK MARKETS.

Thursday's Market.

May 18, 1911.

Cattle.

Receipts, 746. Good grades steady; bulls, cows and light butchers 10@15c higher.

We quote: Best steers and heifers, \$5.85; steers and heifers, 1,000 to 1,200, \$5.25@5.50; steers and heifers, 800 to 1,000, \$4.75@5.25; steers and heifers that are fat, 500 to 700, \$4.50@5.15; choice fat cows, \$4.50@4.75; good fat cows, \$3.75@4.25; common cows, \$3.35@3.50; canners, \$2.40@3; choice heavy bulls, \$4.50@4.75; fair to good bolognas, bulls, \$4.40@4.25; stock bulls, \$3.50@3.75; choice feeding steers, 800 to 1,000, \$4.50@5.15; fair feeding steers 800 to 1,000, \$4.40@4.50; choice stockers, 500 to 700, \$4.40@4.65; fair stockers, 500 to 700, \$3.50@4; stock heifers, \$3.25@3.50; milkers, large, young, medium age, \$4.00@6.00; common milkers, \$2.50@3.50.

Bishop, B. & H. sold Schlischer 4 steers av 1,025 at \$4.25; to Parker, W. & Co. 3 bulls av 1,070 at \$4.50, 1 cow weighing 780 at \$2.50, 1 do weighing 880 at \$3.25; to Sullivan P. Co. 1 do weighing 1,300 at \$4.75; to Newton B. Co. 9 butchers av 918 at \$5.25, 5 do av 720 at \$5; to Mich. B. Co. 19 steers av 1,030 at \$5.50, 5 do av 1,096 at \$5.50, 1 bull weighing 860 at \$4, 3 butchers av 987 at \$5.35; to Kamman B. Co. 1 cow weighing 850 at \$3.50; to Parker, W. & Co. 1 bull weighing 1,580 at \$4.60, 1 do weighing 1,000 at \$4.50, 1 cow weighing 620 at \$3; to Kamman B. Co. 4 steers av 935 at \$5.60; to W. J. Kamman 12 do av 895 at \$5.60, 2 do av 900 at \$5; to Thompson Bros. 2 cows av 1,190 at \$4.50, 1 canner weighing 780 at \$2, 1 bull weighing 1,200 at \$4.50, 6 steers av 808 at \$5.25, 3 bulls av 810 at \$4.50; to Sullivan P. Co. 1 bull weighing 1,730 at \$4.75, 1 do weighing 1,370 at \$4.50; to Newton B. Co. 3 butchers av 783 at \$5.15.

Roe Com. Co. sold Breitenbeck 12 butchers av 890 at \$5.25, 2 do av 740 at \$4.50, 5 cows and bulls av 1,032 at \$4.50; to Rattkowsky 1 bull weighing 950 at \$4.50; to Newton B. Co. 3 steers av 937 at \$5.50, 24 do av 1,060 at \$5.45, 7 do av 1,121 at \$5.75; to Kull 18 do av 1,015 at \$5.60; to Bresnahan 1 cow weighing 700 at \$3; to Rattkowsky 2 bulls av 535 at \$3.50; to Mich. B. Co. 2 do av 850 at \$4.50; to Hammond, S. & Co. 15 steers av 1,204 at \$5.05, 15 do av 779 at \$5.45; to Mich. B. Co. 2 cows av 990 at \$4.50; to Bresnahan 1 do weighing 820 at \$3; to Fish & Co. 4 stockers av 650 at \$4.75; to Sullivan P. Co. 2 bulls av 1,125 at \$4.50, 4 cows av 900 at \$3.25; to Thompson Bros. 5 bulls av 1,066 at \$4.50, 2 cows av 1,115 at \$4.50, 3 do av 1,093 at \$4.25, 26 steers av 973 at \$5.60; to Newton B. Co. 1 bull weighing 1,170 at \$4.50, 2 steers av 960 at \$5, 3 do av 1,047 at \$5.75, 22 do av 1,105 at \$5.75; to Rattkowsky 2 do av 620 at \$4.

Haley & M. sold Parker, W. & Co. 2 cows av 725 at \$2.75; to Fish & Co. 1 do weighing 750 at \$3.50; to Schlischer 1 do weighing 620 at \$3.75; butchers av 580 at \$4.25, 1 bull weighing 410 at \$3.50.

Spicer & R. sold Mich. B. Co. 2 bulls av 750 at \$4.50, 2 do av 1,140 at \$5, 12 steers av 1,020 at \$5.70, 20 do av 985 at \$5.70; to Applegate 1 cow weighing 750 at \$3.85.

Youngs sold Sullivan P. Co. 1 bull weighing 1,650 at \$4.75, 1 cow weighing 1,220 at \$4.75.

Sandall & B. sold same 42 steers av 783 at \$5.30.

Lowenstein sold same 9 do av 870 at \$5.50, 6 cows av 960 at \$4.35, 2 bulls av 1,285 at \$4.75.

Kendall sold Kamman 3 steers av 1,107 at \$5.50, 2 do av 840 at \$5.25, 4 cows av 1,000 at \$3.75, 1 do weighing 1,250 at \$4.50.

Weeks sold same 3 butchers av 773 at \$5.35.

Graff & S. sold Lachalt 7 steers av 1,057 at \$5.75.

Veal Calves.

Receipts, 1,404. Market steady with Wednesday; \$1 higher than last week. Best, \$7@7.50; others, \$5@6.50; milch cows and springers steady.

Haley & M. sold Goose 2 av 130 at \$5.50, 9 av 130 at \$6; to Hammond, S. & Co. 6 av 155 at \$7.25; to Parker, W. & Co. 22 av 150 at \$7.50, 5 av 130 at \$5, 19 av 150 at \$7, 21 av 135 at \$6, 5 av 130 at \$7, 14 av 135 at \$7; to Hammond, S. & Co. 12 av 140 at \$7.

Roe Com. Co. sold Hammond, S. & Co. 20 av 145 at \$7; to Eschrich 2 av 115 at \$6; to Mich. B. Co. 9 av 150 at \$7; to Hammond, S. & Co. 51 av 135 at \$6.75, 1 weighing 170 at \$5, 4 av 140 at \$7; to Sullivan P. Co. 22 av 130 at \$5.25; to Hammond, S. & Co. 6 av 160 at \$7.25, 6 av 120 at \$5.50, 14 av 155 at \$7.25.

Bishop, B. & H. sold Goose 16 av 140 at \$7; to Parker, W. & Co. 6 av 155 at \$7; to Rattkowsky 17 av 135 at \$7; to Newton B. Co. 9 av 150 at \$7.25, 7 av 145 at \$7.25; to Nagle P. Co. 71 av 140 at \$7; to McGuire 19 av 137 at \$7.25, 2 av 180 at \$7.50; to Burnstine 21 av 145 at \$7.10; to Goose 10 av 141 at \$6.50; to Parker, W. & Co. 54 av 150 at \$6.25; to Rattkowsky 9 av 138 at \$6.75; to Hammond, S. & Co. 13 av 135 at \$7; to Sullivan P. Co. 8 av 155 at \$7.25; to Hammond, S. & Co. 5 av 145 at \$7; to Sullivan P. Co. 11 av 125 at \$6.75, 6 av 155

at \$7.25, 9 av 160 at \$7; to Breitenbeck 19 av 155 at \$7.10; to Rattkowsky 11 av 130 at \$7.

Spicer & R. sold Goose 10 av 142 at \$6.50, 3 av 160 at \$4.75, 24 av 140 at \$6.75; to Goose 9 av 105 at \$5.50; to Mich. B. Co. 20 av 145 at \$7.25, 12 av 130 at \$6.25, 10 av 155 at \$7; to Brodloff 23 av 130 at \$6.85.

Dancer & K. sold Kamman 6 av 105 at \$5.50, 27 av 140 at \$7, 3 av 140 at \$7.

Waterman sold Burnstine 4 av 125 at \$7.

Long sold same 7 av 140 at \$7.

Hendry sold same 2 av 155 at \$7.

Youngs sold Parker, W. & Co. 5 av 150 at \$7.

Chase & Son sold Hammond, S. & Co. 3 av 155 at \$6.50.

Brewer sold Newton B. Co. 2 av 155 at \$5, 8 av 145 at \$6.75.

Boyle sold same 6 av 125 at \$6.50.

Wickman sold same 28 av 140 at \$7.

Johnson sold Sullivan P. Co. 5 av 125 at \$6, 29 av 135 at \$6.50.

Sandall & T. sold Eschrich 11 av 135 at \$6.75.

Sheep and Lambs.

Receipts, 2,402. Market 40@50c higher than last week; quality common. Best lambs, \$6.15@6.25; fair to good lambs, \$5.75@6; light to common lambs, \$3.50@4.50; spring lambs, \$7@10; fair to good sheep, \$3.75@4.25; culled and common, \$2.40@3; wethers, \$4@4.25; ewes, \$3.25@3.75.

Spicer & R. sold Youngs 84 lambs av 96 at \$5.50; to Eschrich 4 do av 80 at \$5.50, 8 do av 93 at \$6; to Barlage 52 do av 50 at \$4; to Newton B. Co. 61 do av 75 at \$6.

Roe Com. Co. sold Mich. B. Co. 4 sheep av 105 at \$3.50.

Bishop, B. & H. sold Sullivan P. Co. 27 sheep av 96 at \$4.50, 2 do av 140 at \$3, 204 lambs av 76 at \$6.10, 5 do av 65 at \$4.50, 9 do av 75 at \$4.50; to Newton, B. Co. 35 do av 75 at \$6.25, 6 sheep av 115 at \$3.50; to Mich. B. Co. 98 lambs av 82 at \$6.15, 15 lambs av 85 at \$5, 149 do av 77 at \$6.10, 32 sheep av 90 at \$3.75; to Fitzpatrick Bros. 17 do av 80 at \$3.75, 23 spring lambs av 39 at \$7.75, 42 sheep av 90 at \$3.75; to Breitenbeck 10 do av 72 at \$3, 51 lambs av 66 at \$6; to Parker, W. & Co. 135 do av 62 at \$6.15; to Sullivan P. Co. 7 sheep av 85 at \$1.50.

Bordine sold Nagle P. Co. 5 sheep av 70 at \$3, 117 do av 95 at \$4.50.

Boyle sold Newton B. Co. 6 spring lambs av 50 at \$7.25, 4 sheep av 100 at \$3.75, 7 lambs av 75 at \$5.

Wickman sold same 7 lambs av 60 at \$5.

Haley & M. sold Youngs 45 lambs av 115 at \$5.50; to Parker, W. & Co. 7 do av 75 at \$6, 20 do av 70 at \$5.50, 7 sheep av 115 at \$3.50.

Lewis sold Sullivan P. Co. 20 sheep av 95 at \$4.25.

Hogs.

Receipts, 5,329. Market 5c lower than on Wednesday; 5c higher than last Thursday.

Range of prices: Light to good butchers, \$6.25; pigs, \$6.30; light Yorkers, \$6.25; heavy, \$6.20.

Bishop, B. & H. sold Parker, W. & Co. 2,575 av 180 at \$6.25, 150 av 240 at \$6.20.

Roe Com. Co. sold Sullivan P. Co. 325 av 190 at \$6.25.

Spicer & R. sold same 611 av 185 at \$6.25.

Sundry Shippers sold same 375 av 180 at \$6.25.

Haley & M. sold Hammond, S. & Co. 530 av 180 at \$6.30.

Sundry shippers sold same 611 av 185 at \$6.25.

VETERINARY.

(Continued from page 556).

nice case of grease heel, which I would like to know how to treat. I also have a colt two weeks old that is stocked in hind legs and I might say that his mother was quite dropsical for some time before the colt was born. C. H. L. Gladwin, Mich.

Apply equal parts tincture iodine and spirits of camphor to hock, two or three times a week and apply to sore heels equal parts boric acid, oxide of zinc and powdered alum twice a day; after the wounds are healed apply one part oxide of zinc and three parts vaseline to soften scabs. Also give her a dessert-spoonful of Fowler's solution in a pint of water mixed, with feed night and morning for 20 days. Apply one part carbolic acid and 30 parts water to navel twice daily.

Worms—Wounds.—I have a horse that is troubled with worms and another that has a wound, which I would like to know how to heal. R. C. B., Eau Claire, Mich.

Give 1 dr. santoline, 1 oz. of ground gentian and 20 grs. of calomel at a dose once a day three times a week for two weeks.

Toothache.—Middle-aged mare shakes head considerable, as though bridle or flies worried her. Head halter gives no relief and disinfectants but little. H. C. V., Plymouth, Mich.—I am inclined to believe the shaking of her head is perhaps the result of toothache, or else the bridle may irritate poll, or perhaps her teeth need floating. It is only by a close examination and some experimentation that a correct diagnosis can be made.

Barrenness.—O. M., Midland, Mich.—Try the yeast treatment. It is prescribed in this column with directions.

HAPPENINGS OF THE WEEK.

(Continued from page 560).

retary Morrison, of the labor unions, not guilty of contempt of court, thus relieving them of the necessity of serving a term in prison.

The Ohio assembly graft case is now before the courts of Franklin county, Ohio.

Over 100,000 acres of timber has been destroyed in West Virginia and Maryland

by fires. Ten persons are reported lost. The Illinois legislature defeated the bill providing for the initiative and referendum by a vote of 93 to 29.

The present projections of the government in irrigation projects cover an area of 3,200,000 acres and represent an expenditure of over \$62,000,000.

Mrs. Taft, wife of President Taft, who has been ill the past week, is reported much improved and it is expected that she will return to Washington from New York where she was stricken.

Plans have been completed for a new dairy building at the state fair grounds at Detroit.

Foreign.

The Mexican situation seems to be more favorable to the rebels than it was a week ago. The federal troops have abandoned the state of Sonora in order to move the troops for the protection of Mexico City. This has been most encouraging to the troops under Madero and with their increased pluck and added hope they are pushing their campaigns hard. The city of Pachuca, having a population of about 40,000, has capitulated and is now in the hands of the rebels. It is the capital of Hidalgo, and is located some 60 miles to the northeast of Mexico City. President Diaz has given further assurance that he will resign and it is believed that the federalists are now so hard pressed that a settlement may be reached in the not distant future.

The English house of commons passed the veto bill restricting the power of the house of lords by a vote of 362 to 341. That the measure can be carried by the upper house is very questionable since its provisions, if it becomes a law, practically means the political extinction of that body.

It is reported that Pope Plus is not satisfied with the Portugal separation law which segregates the church from the state, after having carefully examined the statute.

The International institute of agriculture is in session in Rome, with many delegates from various countries in attendance.

CROP AND MARKET NOTES.

Illinois.

Western Warren Co., April 29.—April has been a cold and dry month, keeping back all vegetation, including fruit, which is just coming in bloom and promises a good crop. There has been more orchard pruning here than ever. Fall wheat is not showing up very well, only about half a stand promised. Farmers have most of their spring plowing done. Oats all up and doing fine. The last few days have been warm, followed by a good rain, which has brought on all kinds of vegetation with a jump. Horses and all kinds of farm products are low except corn and eggs, which are going up a little. Lots of spring pigs throughout the country. Good milch cows are high in price, a car load shipped in here from Elgin selling as high as \$129. These cows were all Herefords and said to be of the best.

S. E. Mecosta Co.—Wheat, rye and grass have wintered well. Spring is late and spring work not as far advanced as usual. Only the first leaves are beginning to open up. Potatoes are selling for about 50c now. It has been pretty dry until now, but we are getting a soaking rain. Hay is selling from \$8@14 per ton; eggs, 15c per dozen; butter, 17@18c per pound. Fruit buds are all right yet and there is a fair supply of them. Young pigs are doing well this spring. Lambs nothing extra. Not many calves are being raised as most of them are sold for veal. Cows as well as horses are high this spring.

Osceola Co., May 1.—The spring is very backward, only about half of the oats sowed yet, and the grass just showing green. Farm work has been delayed by unfavorable weather in early spring. Last week the weather was fine; today it is raining and quite cool. Some fields of wheat are quite good but others not so good. Rye and clover are looking fairly well. There will not be a very large acreage of hay in this vicinity this year on account of so much loss of seeding last year. Horses and cattle scarce and high; fairly good horses bring about \$200

each. The potato market fluctuated considerable the last three or four weeks, advancing gradually from 25@50c, then dropping back to 30c, advanced again to 48c but now back to 35c. Not many left in farmers' hands, but quite a little stored by dealers.

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soil for inoculating containing proper bacteria for successful growth of alfalfa, 100-lb. sacks, \$5c. each, 100 or over 500 per cwt. f. o. b. cars. 25c. per cwt. at farm. Can furnish best of reference, including Colon C. Lillie. Cash with order. Address A. BOS, HUDSONVILLE, MICH.

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Western Factory, Station 95 Des Moines, Iowa. Northwestern Factory, Station 95 Minneapolis, Minn.



HORTICULTURE

THINNING FRUIT.

Almost every experienced fruit grower will concede the expediency of thinning most kinds of fruit; will admit that it makes larger, fairer, better, more salable fruit; that it even increases the bulk of fruit a tree will yield, and yet not all fruit-growers practice it thoroughly. Man, as a general rule, is avaricious. He plants a tree or bush, excites by stimulating manures its fruiting capacity to the highest degree and in his eagerness for abundant crops causes weakness and an early death.

Nature perpetuates all fruits by the production of seeds. The maturing of these makes the heaviest drain on the vital energies of the plant. Thinning fruit lessens the number of seeds to be ripened by a tree and therefore increases its vigor. Judicious thinning improves the quantity, quality and general appearance. Peaches should not be allowed to be nearer to each other on the tree than four inches, and will then, as a rule, produce more in quantity than when nearer. Grapes left to themselves set many bunches of small size, having many green berries, ripening unevenly. Remove many of these bunches and you will be rewarded. The tendency of most pears is to over-production. Thin severely while the fruit is quite small. Repeat the same operation when the fruit has made about one-half its rapid growth toward maturity. Ripen these with care and the result will be pears in perfection and a week or ten days earlier than those that have not been thinned. Thinning apples sets beneficially and has a tendency to promote an annual crop of fruit. Pick part of the crop of currants from each bush while green and mark the result. Gooseberries are not so exhausting upon the bushes as other small fruits, being used generally before ripe.

Thinning of fruit is also a great protection against disease of the tree and fruit. It increases the vigor and health of the plant or tree, adding size and color to the fruit, imparting increased flavor, thereby gratifying the palate and pleasing the eye. The demand for strictly prime fruit is much greater than the supply, and those who produce the best are always sure of obtaining the best prices.

Indiana. WM. PURDUE.

CONTROLLING THE ROSE CHAFER.

A most serious pest which the fruit grower in the United States has to contend with, and which particularly attacks grapes, cherries, raspberries, blackberries and flowering plants, is the rose-chaffer or "rose bug." The rose-chaffer is not confined alone to the grape-growing states, but may be found doing considerable damage from Maine and the New England states westward through New York and Ontario to southern Minnesota, thence southward and westward including Iowa, Nebraska and Colorado, New Mexico and Texas. East of the Mississippi river it occurs as far south as North Carolina and Tennessee.

In view of the fact that this insect causes most damage to the grape, the New York agricultural experiment station has spent considerable attention to find a means of keeping it in check. Bordeaux mixture, arsenate of lead and lime-sulphur were used in 1909, with a large measure of success. That station, however, secured some surprising results in killing the grape flea-beetle by spraying with a mixture of arsenate of lead mixed with glucose and also molasses, the extermination being accomplished in four hours. Having learned this it was decided to try it against the rose-chaffer. The arsenate of lead and glucose sprayed at the rate of 10 lbs. of arsenate of lead, 25 lbs. of glucose and 100 gallons of water, killed the beetles by the following day and the vines were practically free from rose-chafers during the week. It was a very common thing to find the dead beetles clinging to the leaves and blossom clusters. It thus appeared that at last a remedy had been found and that it would be advisable to spray the entire vineyard with this mixture to save the fruit. The grapes were picked in September and October and careful account was made of the weight of the crop from the sprayed plants and the unsprayed check plots. The acre of unsprayed Niagara grapes yielded 1,271 lbs. with a value of \$25.42. The plot sprayed with the arsenate of lead and glucose yielded

4,235 lbs. to the acre, with a value of \$84.70. The spraying cost \$3.50, leaving a profit of \$55.70. Another unsprayed plot yielded but 968 lbs. of fruit with a value of \$19.36.

While the New York station believes that the ravages of the rose-chaffer may be checked to some extent by frequent cultivation of the land from the last week in May to the middle of June when the insects are in the pupal stage, spraying is perhaps the most efficient remedy for this troublesome pest.

The results of the experiments and of others made elsewhere seem to show that either Bordeaux mixture alone or in combination with arsenate of lead is not to be relied upon when the beetles are very abundant. The Michigan station has made similar tests to those at New York with arsenate of lead and glucose and it would seem that the most practical remedy is a spray of 10 lbs. of arsenate of lead, 25 lbs. of confectioners' glucose, (or a gallon of molasses), and 100 gallons of water. The material should be applied as soon as the beetles first appear on the vines. Every effort should be made to prevent the insect getting a foothold in the vicinity of vineyards.

GROWING CUCUMBERS.

No farm garden is complete without cucumbers; and few housewives are satisfied without a generous supply, as pickles are generally in good demand in the "home market."

If the appetite is poor, nothing will sharpen it like a good pickle; yet there is no plant of the garden we have to guard with more watchfulness and care than the cucumber, as it has many enemies in the shape of different kinds of bugs that will quickly destroy the tender plants.

Among these pests there is nothing so much to be dreaded as the striped cucumber beetle. This beetle lays its eggs at the base of the roots and the little white grubs resulting from them feed on the roots all through their development. This often causes the plants to die suddenly, and one not accustomed to their habits can see no cause; but, if the plants were pulled up, the roots would be seen to be badly gnawed, and many times entirely eaten off. The same insects are nearly as destructive on melons and squashes.

There is also a plant disease that is carried by these beetles. This disease makes its appearance after the plants are of good size and have commenced to run, when they die very suddenly and unexpectedly, as does also the squash from the same disease.

When we have but few plants we have protected them from the beetle by using frames covered with netting, but when grown to any extent, other remedies have to be relied on. Carbolic lime, or tobacco dust are recommended, provided the plants are dusted before the beetles have gotten a taste, and provided it is applied often enough to keep the plants well covered.

One grower says the best remedy he has ever found for these pests, is a simple preparation of wood ashes and kerosene oil. He uses a five-gallon, square kerosene oil can, which he fills with sifted ashes, packed down tight. A hole is made in the center with a broomhandle or other round stick and into this is poured one quart of kerosene oil. The vessel is then covered and allowed to stand over night. Next morning the ashes are emptied into a tub or bucket where they can be well stirred up. While the plants are damp with dew the ashes are sprinkled over the vines and on the ground around the stem, and under the leaves and not a bug will trouble them for at least two weeks, unless it rains, in which case they must be sprinkled with the mixture again. To protect the home supply, the above quantity of mixture will last all summer.

His method of culture we think well worthy of consideration. He makes the bed about six feet wide and any desired length. When the vines get about one foot long he builds an arbor of brush over the bed, about eighteen inches high and allows the vines to climb up through and over the arbor. They will cling to the brush like the grape vine where it has something to cling to. This will keep down the weeds and also hold the moisture as the vines densely shade the ground.

If one does not care to build an arbor as described above, they may obtain similar results by simply placing brush over the hills and the vines will crawl all over them, completely shading the ground. This I have seen done with very good re-

sults; but the arbor must be ornamental as well as useful. In the bed referred to, the rows of cucumbers were about three feet apart and two feet in the row. In this way the arbor can be easily made and fruit readily picked from either side.

Cucumbers, to make the most desirable pickles, should be picked early in their growth. Overgrown, seedy specimens will soon ruin the most thrifty vines, therefore picking should be regularly done and the vines carefully searched.

We practice cutting from the vines, leaving a small portion of the stem on the cucumber. This has much to do with the keeping quality of the pickles.

Cucumber culture is an industry that is fast gaining ground, as will be seen by the great number of salting stations established throughout our state.

Oceana Co.

J. M. W.

GASOLINE VS. HAND POWER SPRAYING OUTFIT.

With our gasoline engine outfit we run two lines of hose with a quadruple vermorel nozzle on one rod and a double Vapo of large size on the other, the vermorel being used by the man on the tower where it is less likely to bother by catching on the limbs. In spraying large trees that are close together so there is not too much driving we can run out 200 gallons in about an hour. The rotary tank pump will fill the tank in about six minutes. While this is being done one man puts in the lime-sulphur while the other oils and looks after the pump and engine. On an average we will put on about 1,000 gallons in eight hours.

With a hand pump of medium size two men should be able to put on about 300 or 400 gallons in this length of time. With a large pump, with a 2 1/4 to 2 1/2 cylinder three men with two lines of hose might put on 500 gallons. These things depend upon the size of the trees, size of nozzle, capacity of the pump, convenience of water, size of barrel or tank, and many other things. One thing should be remembered by the small orchardist, and that is that he can do just as good a job as the man with a power outfit if he has a good pump with a good man at the handle, a good rod and nozzle and a careful man to hold them, and a tower so he can get the spray into the tops of the trees.

Calhoun Co.

S. B. HARTMAN.

DISTANCE FROM RAILROAD FOR FRUIT GROWING.

I have 80 acres of cutover, or wild land in Newaygo county, Mich., which is part good fruit land, part grass and part farming land. Now, this is six miles to the nearest railroad and eight miles to town. Is this land too far out for fruit growing, say apple or peach growing, which I want to engage in?

Warren Co., Ill.

H. W. V. T.

The distance of a fruit farm from the market or railroad is a permanent condition that should be carefully considered in locating an orchard. However, the distance mentioned by the inquirer would not seem to be prohibitive, especially in the production of apples, as this fruit well packed, will stand transportation where care is exercised in handling, and where the fruit is conveyed on wagons equipped with springs. Of course, the character of the roads would have something to do with the degree of safety with which the fruit could be conveyed. There would always be the expense of transporting, which would necessarily need to be added to the cost of production. For this reason one could locate on higher priced land nearer his market, providing he is in shape to stand the initial investment. One could afford to invest an additional \$100 for every \$6 cost in transportation per year; hence, it would not be impossible to calculate in a general way the increased amount he might invest with profit in land near his market than in land at some greater distance. Besides this cost of production, there is always to be reckoned the probability of damage to the fruit, also the conveying of spraying and packing materials to the farm, etc. Whereas, on the other hand, it is often possible to secure better fruit lands, those which are more particularly adapted to the varieties to be grown, at some distance from the market. These considerations must, of course, be decided in the particular instance. However, we do not consider the distance mentioned as prohibitive, and we advise H. W. V. T. to plant his orchard, providing the soil and location are well adapted to fruit, keeping in mind of course, that the handicap will be less if he grows harder fruits, like apples.



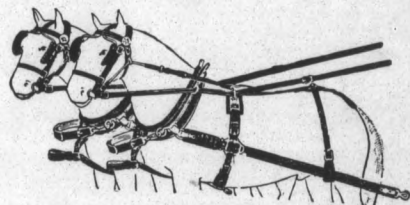
Put It Up To Us

Don't hold yourself responsible for the mistakes you have made in judging harness quality.

Almost anybody can be deceived in a finished harness, for only an expert of long experience can be trusted to discover soft spots and defects that occur in even the best grades of harness leather.

Confidence in the skill of our experts and in the old fashioned bark tannage by which our leather is prepared—a process that requires five months to tan a single hide—enables us to make "Guaranteed Quality" a part of the name of Williams' Harness.

Put it up to us, Mr. Harness User, and let us return your money if any harness you buy from us fails to give the fullest measure of satisfaction.



Owing to the late spring we are offering a special inducement to harness buyers in the above Williams' Double Farm Harness. We will fill orders for this harness at the special prices quoted below until June 30th only. Send TODAY for a fuller description, if desired.

Williams' Double Farm Harness: Bridles, 3/4-inch; Concord Blinds—Lines, 1-inch, 20 feet long—Brest Straps and Martingales, 1 1/2-inch—Traces, 1 1/2 and 1 3/4-inch; three rows of stitching.

No. 10G19554 1 1/2-inch traces, without collars, \$22.50

No. 10G19555 1 3/4-inch traces, without collars, \$23.50

Our Special Harness Catalog fully describes more than seventy different patterns of Williams' Guaranteed Quality Harness; also saddles and saddlery goods of every kind. Free for the asking. You need this book if you want harness of quality.

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and do whitewashing in most efficient, economical, rapid way. Satisfaction guaranteed. BROWN'S HAND OR POWER Auto-Sprays No. 1, shown here, is fitted with Auto-Pop Nozzle—does work of 3 ordinary sprayers. Endorsed by Experiment Stations and 30,000 others. 40 styles and sizes of hand and power sprayers—also prices and valuable spraying guide in our Free Book. Write postal now. THE E. C. BROWN COMPANY 32 Jay St., Rochester, N. Y.

FRUIT NOTES AND PROSPECTS.

Thus far the prospects are good for a bumper crop of fruit in this section, though we do not know when a single night may change the prospect. The earliest strawberry blossoms were blackened in the bud by the hard frosts and freezes of early May but most of those now out are all right yet, though we came very nearly having a hard frost last night the dry weather and lack of rain before the change of temperature being the salvation of many blossoms if it is not the best for the newly set plants and trees.

Apples are, as a rule, set quite full where there was not a crop last year, and with good weather for the next two weeks we should have a larger apple crop than we have known for several years, but it is still too early for definite predictions. One thing certain, we must spray well now if we wish good fruit this fall. Even if the blossoming is light we should not be disheartened, for I have known a very light blossoming to produce a good crop, though the average person would have declared at the time they were sprayed that there would not be a bushel to the tree. Those who did not spray at this time did not get a bushel to the orchard, in many cases.

What to use for this spray is still a debatable question so far as the fungicide is concerned. Some will use lime-sulphur entirely, some Bordeaux mixture, many will try both. For the farmer growing fruit for his own use where he is not so particular about the russetting of the fruit by the Bordeaux mixture, it will make little difference so far as our experience goes, and we tried them both last summer. Both are good fungicides and controlled the scab almost entirely, but there was more russetting on the fruit sprayed with Bordeaux which is not so desirable on fruit intended for market. Another advantage of lime-sulphur is its value in controlling the spread of the young San Jose scale, which, from our experience last season I believe it does to quite an extent. Even where some trees were quit badly infested with the scale there was practically none on the fruit where the summer sprays contained lime-sul-

phur as the fungicide, while, where Bordeaux was used some at the edge of the orchard near badly infested trees had fruit quite badly scale marked.

Last year we used one and one-half gallons of the commercial lime-sulphur to 50 gallons, or 1 to 33. This year we may use a little less, perhaps 1 to 40 or even 50. The scab was controlled so well last year that I do not believe it will be necessary to use it as strong, and perhaps it will do away with some of the russetting which was present even slightly where lime-sulphur was used.

For an arsenical poison arsenate of lead has come to be the standard poison. It is claimed to be the only safe arsenical to use in connection with the lime-sulphur as a summer spray, and its adhesive qualities are so superior to Paris green that I believe it is really more economical to use even in connection with Bordeaux.

Pears, plums, cherries and peaches are blossoming quite full. There is more of a tendency among farmers to spray these fruits, as they find that if they do not spray the fruit either drops or is too wormy to use to advantage. If the cherries are given a spray of arsenate of lead soon after the blossoms drop, and again a couple of weeks later, there will be few wormy cherries. Plums need three or four sprays after blossoming to control the curculio well, and then they may get some of the fruit. Pears can be sprayed the same as apples. It is well to put about three pounds of blue vitriol and six of lime to 50 gallons with these sprays for the shot hole fungus, rots and other fungous diseases, or a gallon of lime-sulphur to 50 instead of the vitriol and lime. If peaches are troubled with rot they may be sprayed with weak self-boiled lime-sulphur, as advised by the experiment station bulletin.

The yellows are beginning to show by the pale narrow leaves which come in tufts from the scaffold branches of the peach trees. If this disease could only be controlled I believe peach growing would be a fairly safe speculation almost anywhere in southern Michigan, but to grow a peach orchard to more than five or six years of age in a locality where peach yellows abounds and is not controlled by inspectors is about all we can

do. One good crop will about pay for the trees, but doesn't leave many profits. If scientific men could concentrate their labors upon this disease and even learn how and when it is spread it would be worth millions of dollars to the fruit growers. At present you can not get the department authorities to make a single definite statement in regard to the disease. They prefer to avoid it and work at some easier, non-essential subject. It is something of a chestnut perhaps, but the chestnut must be cracked before we can get at the rich meat of peach growing.

Calhoun Co.

S. B. HARTMAN.

ASKS HOW TO GROW ASPARAGUS.

Can asparagus be grown in southwestern Michigan? I should like to start a bed and would like to know the best variety, also the best time. What kind of soil is best? Give entire culture. We are new subscribers and have not seen anything on the subject.

Van Buren Co.

V. E. F.

FIRMING PLANTS AFTER FROST.

Asparagus may be grown in southwestern Michigan or in any other part of the state where a good soil can be supplied. The most popular variety of this earliest of our garden plants is Conover Colossal. The plants are usually set in the spring. A loose, easily worked, rich sandy loam is preferable. Use one-year-old plants that have been well grown, show vigor and are of good size. Dig a trench where the rows are wanted (the rows should be about five or six feet apart in the rows) making the trench from 10 to 16 inches deep, according to the depth the soil will allow; place in the bottom of this trench a few inches of well-composted manure and pack it down well. Over the manure put about an equal amount of rich surface soil and upon this set the plants. Carefully pack earth about the roots so as to leave no air spaces to dry out the roots or to retard growth. Leave some of the trench to fill later. Some practice putting a layer of compost or decayed manure upon the soil after the plants are in. The practice can do no harm and is bound to furnish food for the plants later since they are liberal feeders. Cultivation should begin immediately and the con-

stant working in the rows and about the plants as they grow up out of the trench will have the soil perfectly level at or by the end of the first season. In the fall the tops should be cut away before they have produced seed, and burned to prevent the spread of fungous diseases. A liberal application of well-decayed barnyard manure should also be added during the fall, and in the spring this should be spaded into the surface. Do not cut stalks from the plants until the third season since the food gathered by the roots and leaves are required to get them well established after which they will go on and produce stalks for many years, providing, of course, that the soil is given enough plant food to sustain the plants. The crop is too little grown, since it is a promoter of health by bringing to the home the first green product to intersperse in the menus of the springtime and break the long spell of feeding on "much meat and no vegetables."

Frost, as everybody knows, has great lifting power, and recently-planted things always require some pressure to firm them after the frost goes. If this is not given the plants may die. This refers more especially to small plants, but I found it necessary after a spell of frosty weather, to go round recently planted strawberries and apply foot pressure to firm the soil near them, as strawberries will not thrive in loose soil; and the same treatment should be given to all plants which have been disturbed in any way, either by frost or wind. No one should plant a tree or large shrub without securing it from wind-pressure. In some places, especially near the seaside, this wind pressure is very great. Some years ago I was living within three miles of the sea. Our place was elevated and exposed, though very lovely in summer, but the wind from the southwest was at times very severe. Even the branches of the trees broke away from the wind pressure in a way I have never seen elsewhere, and everything planted, even the gooseberry, had for a time to be supported by stout stakes.

Canada.

W. R. GILBERT.

Can't Get Away From It

Is it possible to nourish, strengthen and Rebuild the Brain by Food?

Every man who thinks uses up part of the brain each day. Why don't it all disappear and leave an empty skull in say a month of brain work? Because the man rebuilds each day.

If he builds a little less than he destroys, brain fog and nervous prostration result sure. If he builds back a little more each day, the brain grows stronger and more capable. That also is sure. Where does man get the material to rebuild his brain? Is it from air, sky or the ice of the Arctic sea? When you come to think about it, the rebuilding must be in the food and drink.

That also is sure.

Are the brain rebuilding materials found in all food? In a good variety but not in suitable proportion in all.

To illustrate: we know bones are made largely of lime and magnesia taken from food; therefore to make healthy bone structure we must have food containing these things. We would hardly feed only sugar and fat to make healthy bone structure in a growing child.

Likewise if we would feed in a skillful manner to insure getting what the brain requires for strength and rebuilding, we must first know what the brain is composed of and then select some article or articles (there are more than one) that contain these elements.

Analysis of brain by an unquestionable authority, Geoghegan, shows of Mineral Salts, Phosphoric Acid and Potash combined (Phosphate of Potash) 2.91 per cent of the total, 5.33 of all mineral Salts.

This is over one-half.

Beaunis, another authority, shows "Phosphoric

Acid combined" and Potash 73.44 per cent from a total of 101.07.

Considerable more than one-half of Phosphate of Potash.

Analysis of Grape-Nuts shows: Potassium and Phosphorus (which join and make Phosphate of Potash) is considerable more than one-half of all the mineral salts in the food.

Dr. Geo. W. Carey, an authority on the constituent elements of the body, says: "The gray matter of the brain is controlled entirely by the inorganic cell-salt, Potassium Phosphate (Phosphate of Potash). This salt unites with albumen and by the addition of oxygen creates nerve fluid or the gray matter of the brain. Of course, there is a trace of other salts and other organic matter in nerve fluid but Potassium Phosphate is the chief factor and has the power within itself to attract, by its own law of affinity, all things needed to manufacture the elixir of life."

Further on he says: "The beginning and end of the matter is to supply the lacking principle, and in molecular form, exactly as nature furnishes it in vegetables, fruits and grain. To supply deficiencies—this is the only law of cure."

The natural conclusion is that if Phosphate of Potash is the needed mineral element in brain and you use food which does not contain it, you have brain fog because its daily loss is not supplied.

On the contrary, if you eat food known to be rich in this element, you place before the life forces that which nature demands for brain-building.

Mind does not work well on a brain that is broken down by lack of nourishment.

A peaceful and evenly poised mind is necessary to good digestion.

Worry, anxiety, fear, hate, etc., etc., directly

interfere with or stop the flow of Ptyalin, the digestive juice of the mouth, and also interfere with the flow of the digestive juices of stomach and pancreas.

Therefore, the mental state of the individual has much to do (more than suspected) with digestion.

Brain is made of Phosphate of Potash as the principal Mineral Salt, added to albumen and water.

Grape-Nuts contain that element as more than one-half of all its mineral salts.

A healthy brain is important, if one would "do things" in this world.

A man who sneers at "Mind" sneers at the best and least understood part of himself. That part which some folks believe links us to the Infinite.

Mind asks for a healthy brain upon which to act, and Nature has defined a way to make a healthy brain and renew it day by day as it is used up from work of the previous day.

Nature's way to rebuild is by the use of food which supplies the things required. Brain rebuilding material is certainly found in

Grape-Nuts

"There's a Reason"

Postum Cereal Company, Ltd.,

Battle Creek, Mich.

POULTRY AND BEES

ALFALFA AS POULTRY FOOD.

Alfalfa rightly used—fed green in summer, and in winter in the form of hay or ensilage—will reduce the cost of feed at least one-half. A pound of dry alfalfa or alfalfa hay contains as much protein as one pound of wheat bran. Yet few poultry keepers seem to realize the value of alfalfa as a poultry food. In summer, green alfalfa is of especial value to poultry confined in yards where there is no grass growing.

When used green, mow it as wanted and cut it in very short lengths with a small hand cutter. Clover cutters are made especially for this purpose. The alfalfa is then put into boxes with slatted covers from which the fowls can easily remove it.

Green alfalfa is especially valuable for young chickens kept in runs. It can be cut finely for them, or tied up in bunches and placed where they can pick it as they wish.

Some have succeeded with alfalfa ensilage, but there is considerable difficulty in keeping it in small quantities. Hay is a much better form in which to keep it. The best way to cure alfalfa is to partly dry it in the sun, then put it in small heaps and cover with muslin hay caps. After three or four days open it to the sun for a short time and it is then in the best condition for storing for winter, provided the weather has been clear all the time.

For feeding, cut the hay with the clover cutter, steam it if you wish, and mix it with corn meal or some carbonaceous food—not with bran, as the alfalfa supplies the protein. Moisten the mixture with skim-milk and you have, when used with whole grains, shells, grit, etc., the most economical winter ration.

New York. T. A. TEFFT.

PRESERVING EGGS ON THE FARM.

Water glass, chemically known as sodium silicate, continues in favor as the most reliable and satisfactory egg preservative. Its use upon the farm, where it is sometimes desirable to store eggs in a small way, is entirely practical, and while the average farm poultryman hesitates about storing eggs for home use, it is feasible for him, in a time of low prices such as the present, to at least put away the winter's supply for home cooking purposes, thus enabling him to market just that many more of his winter eggs. Repeated tests have demonstrated that where water glass is carefully and correctly used eggs can be held for an entire year without losing any of those qualities needful for cooking purposes or without developing flavors of a distasteful nature.

Full directions for preserving and storing eggs by this method, as followed at

sure a proper mixture of the two. A great deal of care should be taken in mixing the water glass and the water, and the more thoroughly this is done the better the chance of preserving the eggs. When eggs are to be preserved in several receptacles, the water and water glass should be mixed in each receptacle separately, for if they are mixed in one receptacle and poured into several, there is the liability of getting different percentages of water glass in each receptacle, with the result that some eggs are likely to spoil.

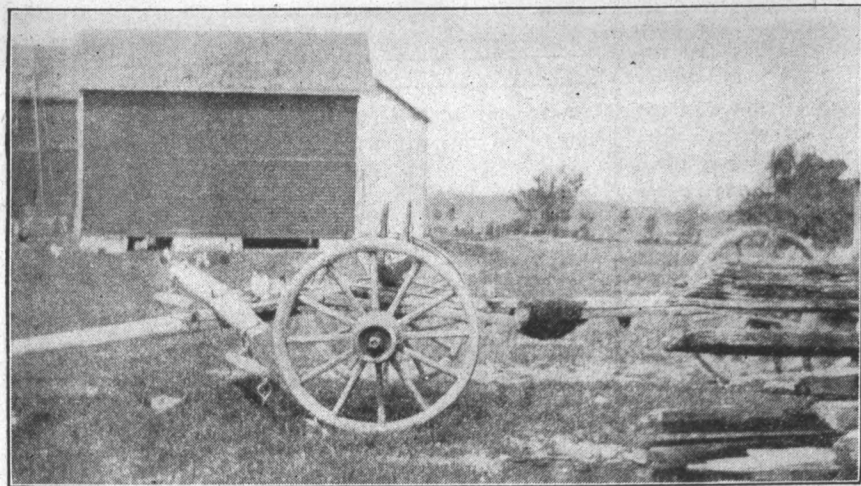
Into this fluid place the eggs, examining each egg to see that it is clean and not cracked. A good method is to tap two eggs together gently before putting them into water glass. If they are not cracked they will give a true ring, while if one of them is cracked the sound will be entirely different and the cracked egg can be discarded. Keep the eggs well covered with the solution by adding a small quantity of boiled water when necessary.

If several receptacles are used it is a good plan to mark the one bearing April eggs and those containing May and June eggs. These receptacles should be covered to prevent evaporation of the water from the solution. Where the receptacles are not covered the solution turns milky or changes to a thick, white, pasty mass, making it more difficult to take out the eggs. This does not, however, necessarily detract from the preservative qualities.

SUGGESTIONS ON HIVING SWARMS.

During the months of May, June and July, the bees in all properly managed hives become very numerous, and so crowded, particularly if the weather is hot, that they cluster outside the hives and hang in a large bunch from the entrance, unless more room is given by means of supers or by enlarging the brood-nest. This clustering outside is the usual and almost certain sign of swarming time being near. A swarm, composed of the queen and a few thousand workers and drones, leave the hive, and, after filling the air for a few minutes, generally form a pear-shaped mass on the branch of a tree close by. Unless the bee-keeper happens to be at hand the swarm may be lost to him, for in all probability scouts sent out previous to the swarm will lead the merry throng to a new home which they have prepared in a hollow tree or elsewhere. If they do not go direct without clustering they are almost certain to do so after becoming settled, unless they are quickly hived into a clean hive.

If the swarm is allowed to remain clustered for some hours, hiving becomes a difficult operation. Although, when swarming, bees are good-tempered, they soon become irritable if left in the sun; therefore, hiving should take place as soon as possible after the cluster has been formed. Many bee-keepers suggest the advisability of hiving swarms in the evening, but this advice refers to re-hiving, because unless the swarm is secured



Illustrating the Fact that Swarms Sometimes Cluster in very Unusual Places.

the Storrs experiment station where water glass has been successfully used for several years, are given below and should be closely adhered to:

A cellar is a good place to keep the eggs, though any darkened room where the temperature does not go over 60 degrees F. will do. A stone jar is preferable to other receptacles, for it can be sealed and cleaned more thoroughly than most receptacles.

A five-gallon receptacle will hold about 15 dozen eggs. The preserving fluid itself should be made from clean water that has been boiled and allowed to cool. To every nine quarts of water add one quart of water glass, stirring thoroughly to in-

as advised above, it may, and most likely will, decamp. After it is safely secured it is immaterial whether it is put into a modern hive then or in the evening.

Swarms settle in various places, from which they are sometimes dislodged with ease, while on other occasions considerable skill and some ingenuity must be exercised before they are safely secured. Great care must be exercised to avoid crushing a single bee, for if the queen is killed the bees will return to the hive from which they issued, while if a worker bee is crushed, and the poison-bag ruptured, the smell of the poison will irritate the others and cause them to sting.

F. G. H.



This Little Insect Causes all your Wormy Apples

IN case you do not spray, 20 to 40 per cent. of your yield is likely to be lost on account of the codling moth. *Swift's Arsenate of Lead* will save you 90 per cent. of what you would otherwise lose. In hundreds of orchards sprayed last year with Swift's there was hardly a wormy apple.

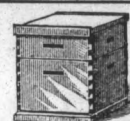
One spraying with this wonderful insecticide outlasts two to four with old-fashioned materials, because it sticks through even heavy rains. It is fatal to leaf-eating worms and insects. Easy to apply.

Write for our new book. It covers apple culture from planting the trees to gathering the fruit. Clear, plain, simple and reliable. It is free. Give your dealer's name.

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EGGS from the famous Blue Belle Strain of Barred Rocks, prize winners at Chicago & Boston. \$1.50 a setting, \$3 from special pen of 8 hens, \$2 from special pen of 10 pullets. Lake Ridge Farm, Levering, Mich.

S. C. BLACK MINORCA EGGS—Lay large white eggs and lots of them. \$1 for 13; \$3 for 50; \$5 for 100. E. A. BLACK, R. No. 6, Lakeview, Michigan.

White Leghorns—Rose or single comb cock-erels. Rose Comb eggs \$1 to \$2 per 15. Ray J. Graham, R. F. D. No. 1, Flint, Mich.

LILLIE FARMSTEAD POULTRY B. P. Rocks, R. I. Reds, W. Wyandottes and S. C. W. Leghorn eggs for sale, 15 for \$1; 26 for \$1.50; 50 for \$2.50. COLON C. LILLIE, Coopersville, Mich.

EGGS: EGGS—White & Buff Orpington, White & Barred Rocks, Black & White Minorcas, White & Buff Leghorns, Rose & Single Comb Reds, Houdans & White Crested Blk Polish. H. H. King, Willis, Mich.

THOROUGHbred S. C. BROWN LEGHORN EGGS at \$1.00 per 15 or \$5.00 per 100. Stock all sold. LEWIS T. OPPENLANDER, R. No. 4, Lansing, Mich.

EGGMAKERS Strain S. C. Brown Leghorns. Eggs 9c. per 15; \$1.45 per 30; \$3.98 per 100. WM. J. COOPER, Mt. Pleasant, Michigan.

Eggs—Light Brahma, White Wyandotte and Barred Rocks. \$1 a setting, \$1.50 for two settings. E. D. BISHOP, Route 38, Lake Odessa, Michigan.

R. C. Brown Leghorns—Kulps 242 egg strain, prize winners, farm range, select eggs \$1.00 15; \$3.00 50. S. W. HENSEL, Basil, Ohio.

R. C. B. Leghorn Cockerels—Kulp strain, the best in season. C. W. WAITE, Gobleville, Michigan.

SINGLE COMB BLACK MINORCAS—A few more pullets to spare. Eggs to spare. R. W. MILLS, Saline, Michigan.

SILVER, GOLDEN and WHITE WYANDOTTES. Eggs \$1.50 per 15; \$2.50 per 30. A few White Roosters left, circular free. C. W. Browning, Portland, Mich.

SINGLE Comb Brown Leghorns—One of Michigan's largest breeders of the Brown Beauty's winning at the leading shows. Send for catalog with prices and photos of my birds. Box 24 D. Charles Ruff, St. Clair, Mich.

FOR SALE—S. C. and R. C. Rhode Island Red Eggs. 15 for \$1.00; 50 for \$2.75; 100 for \$5. BUELL BROS., Ann Arbor, Mich.

MRS. FLORENCE HOWARD, Petersburg, Mich. White Rock and Rose Comb White Leghorn eggs this month \$2.50 per 50; \$1.00 per 15. 1 Leghorn c'h \$1.50; 2 W. R. c'h \$2 each. Satisfaction guaranteed.

WHITE PLYMOUTH ROCKS—Fishel strain. Good winter layers. Eggs 10 cents each; \$3.50 per 50; \$6 per 100. Bruce W. Brown, R. No. 3, Mayville, Mich.

WHITE WYANDOTTES—Useful and beautiful. The kind that weighs, lays and pays. A. FRANKLIN SMITH, Ann Arbor, Mich.

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GRANGE

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

THE MAY PROGRAMS.

Suggestions for Second Meeting.

"But when people get together,
There's improvement in the weather,
There's improvement in the climate of
the soul."
Select reading.
Farm management.
Instrumental music.
Home management.
Report of "The One Improvement
Club."
Chip basket, in charge of Assistant Lec-
turer.
Music and reading, in charge of Ceres.

THE JUNE PROGRAMS.

State Lecturer's Suggestions for First Meeting.

"All green and fair the summer lies,
Just budded from the bud of spring,
With tender blue of wistful skies,
And winds which softly sing."

Recitation.
A good garden lowers high cost of
living.
Discoveries, given by five women.
Reading, "The Unnamed Saints."
Preparations for hot weather.—1. On
the farm. 2. In the house. 3. In the
dooryard.
Music to intersperse in this program,
in charge of lecturer.

VARIED DIVERSIONS FOR YOUNG PEOPLE.—III.

A few instances may be mentioned where efficient leadership has been applied along the line of amateur theatricals in Grange program work. At a recent Pomona meeting, the lecturer of the entertaining Grange introduced "Ten famous women." The lecturer herself wore a college cap and gown and each of her assistants was dressed to represent the historical character she described. The audience was asked to guess the names of the personages represented, the list including such as Joan of Arc, Harriet Beecher Stowe, Queen Elizabeth and Florence Nightingale. This feature of the program was put on without previous practice, each person preparing her costume according to pictures found in books of history and literature. Another lecturer who was present told of how she announced "Some distinguished guests," and her helpers came forward representing such American characters as "our first ancestor," "a real Puritan," "a revolutionary soldier," "Columbia," "the boys of '61," "a Spanish war veteran," and "coming patrons." The last announcement ushered in a bevy of boys and girls, singing a national air and waving flags.

In another Grange a good reader read "Zekiel's Courtin'," by Lowell, while a couple of young people acted the parts. In another, at the close of a song, an effective tableau, arranged by the teacher of the school, made the sweet words of the song more impressive. The "Story of Johnny Applesseed" lends itself to effective illustration, so do portions of "Hiawatha," "Miles Standish," and many others of our well-known and favorite poems. The Grange ritual is in itself a most fertile field for such illustrative work. All in all, this is a line of diversion worth following up. It acquaints members with bits of literature, and it makes a program feature which appeals to the eye as well as to the ear of the audience.

JENNIE BUELL.

AMONG THE LIVE GRANGES.

A New One for Jackson County.—A Grange, to be known as West Tompkins Grange, was organized at the Gould schoolhouse in the western part of Tompkins township, Jackson county, by Deputy Wilde on Tuesday evening, April 25. The following officers were chosen: Master, Elmer Huxtable; overseer, Eli Bromley; lecturer, Ernest Fountain; steward, Fred Hopcraft; assistant steward, Lott Rew; lady assistant steward, Mrs. Guy Ferguson; chaplain, Hattie Huxtable; treasurer, June Griffith; secretary, Lloyd E. Schutt; gate keeper, Warren Schutt; Ceres, Mrs. F. J. Towers; Pomona, Ella Fountain; Flora, Ella Bromley.

To Encourage Corn Growing.—Resort Grange, of Emmet Co., desirous of awakening the same interest in corn growing that has been aroused in the care of orchards and the growing of all kinds of fruits in the county, recently decided to conduct a corn contest this season. The conditions governing the contest are as follows: No one may compete for the

prizes excepting members of the Grange and their families. Two dollars will be given for the best and one dollar for the second best ten ears of corn of the following varieties: Yellow dent, white dent, flint, sweetcorn, or any other variety, the corn winning prizes to become the property of the Grange. This corn will be judged by three disinterested competent persons, preferably from outside the county. All entries for these prizes must be made prior to ten o'clock a. m., on Thursday, Oct. 26, 1911, to the committee having the matter in charge. All exhibits must be accompanied by a record giving the time of planting and harvesting the same. It is also requested that the exhibitor give an outline of his methods of preparing the soil, selecting seed, and cultivation of the crop.

Harmony Grange, of Charlevoix county, had an especially good program at its last April meeting, the spirited contest which this Grange is conducting causing the program leaders to put forth unusual efforts. The features of this program were several original essays dealing with the improvement of the county fair. It was proposed that the Agricultural College and experimental stations be asked to make exhibits and send competent men to give information in regard to latest methods. It was stated that this has been done in some states and with very good results in the interest shown and also in creating higher ideals or standards of excellence.

Jackson County Granges.—The Granges organized in this county last season are, for the most part, doing good work, having regular meetings with good programs and some additions to their memberships. North Leoni Grange observed the first anniversary of its existence by giving a banquet in its hall Thursday evening, April 27, also conferring degrees upon three candidates. East Summit Grange made one of its April meetings the most successful that it has held since organization and voted to make its first meeting in June an open one. This Grange observed Arbor Day in an appropriate manner. Leoni Center Grange had a good attendance and an excellent program at its April 17 meeting, the topic commanding most attention being "Labor Savers for Making Woman's Work Easier." Minard Grange added two members at one of its April meetings and discussed dairying and parcels post. West Napoleon Grange held an exceptionally good meeting April 20. Roll call was responded to with suggestions in answer to the question, "How Can We Make Home and School Grounds more Attractive?" Bros. Frank Peters and Geo. Carpenter led in the discussion of the very live topic, "How can the Farmer get in more Close Touch with the Consumer?" Bro. Peters talking along the line of co-operative effort, and Bro. Carpenter advocating the establishing of a city market in Jackson.

Hillsdale Patrons Discuss Public Questions.—Hillsdale Pomona Grange met with Mosherville Grange on Wednesday, May 3, having a good attendance and a picnic dinner at noon. Parcels post, Canadian reciprocity and initiative legislation were all considered at some length. Bro. Kies held that the parcels post is greatly needed by all the people and voiced the opinion that the powerful influence of the express companies is alone responsible for the delay on the part of congress in granting this much desired legislation. He also spoke in favor of the reciprocity agreement, but was vigorously opposed by other members and it seems clear that a very large majority of the farmers of this section are bitterly opposed to the treaty, at least so long as manufactured articles are not placed on the free list along with farm products. Editor Grandon, of Hillsdale, explained very clearly the theory of the so-called initiative, referendum and recall as follows: "The initiative is a privilege given through the enactment of a law that will permit the people to initiate, present and pass, their own laws. If a majority of the people vote for a law which the legislature refuses to pass; if a majority of the people vote for a law the governor vetoed; if a majority of the people vote for a law that was initiated by the people without having been presented to the legislature, then it becomes a law of the state. It was initiated by the people, carried by the people and cannot be vetoed either by the legislature or governor. The referendum is only an extension of the same principle, except that it applies to bills passed by the legislature and signed by the governor. If the people are not satisfied with the bill, through a petition signed by a certain per cent of the voters they can ask that any bill be submitted or referred to the voters of the state before it becomes a law. If the people reject it, that ends it. In like manner the recall is applied. If your representative in the legislature is voting against your interests, by a proper petition you can demand a re-election. If he wins, his course is justified by the people. If he loses, the people have discharged him."

COMING EVENTS.

Pomona Meetings.

Lenawee Co., with South Dover Grange, Thursday, June 1. Lecturers' conference conducted by State Lecturer.
Eaton Co., with Needmore Grange, Wednesday, June 7.
Kent Co., with Thornapple Valley Grange, Wednesday, June 7. State speaker, Mrs. E. J. Creys.
Newaygo Co., with Lincoln Grange, Wednesday and Thursday, June 14 and 15.
Calhoun Pomona and Lecturers' Conference, at Battle Creek, Thursday, June 8.
Allegan Pomona and Lecturers' Conference, at Otsego, Thursday, June 15.
Osceola Pomona and Lecturers' Conference, at Reed City, Friday, June 16.

FARMERS' CLUBS

OFFICERS OF THE STATE ASSOCIATION OF FARMERS' CLUBS.

President—B. A. Holden, Wixom.
Vice-Pres., J. D. Leland, Corunna.
Secretary—Mrs. C. P. Johnson, Metamora.
Treasurer—Mrs. Lewis Sackett, Eckford.
Directors—A. R. Palmer, Jackson; Wm. H. Marks, Fair Haven; C. L. Wright, Caro; E. W. Woodruff, Blanchard; C. P. Johnson, Metamora; Patrick Hanked, Munith.

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

Associational Motto.—

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

Associational Sentiment.—

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

YEARLY PROGRAMS.

The Hadley and Elba Club.

The latest of the yearly programs of local Clubs to reach the editor's desk is that of the Hadley and Elba Club, of Lapeer county. This is a neat booklet printed on a good quality of book paper. The cover page contains only the name of the Club with the year for which the program is to serve. In addition to this information, the title page gives the date of the organization of the Club, which was 1899. On the next page appears a schedule of the meetings of the Club, which are held on the third Thursday of each month. From October to April, inclusive, the meetings begin at 10:30 a. m., while from May to September the meetings are called at 1:30 p. m. The music for each monthly program is arranged for by a committee. On the opposite page is printed a list of the officers of the Club. The next page is devoted to the order of business for the Club meetings. On the succeeding pages appear the programs for the several months of the fiscal year, which begins with February, one page being devoted to the program for each month. The farm homes of the members are named, and the farm name appears in connection with that of the host for each month. Roll call is answered by a variety of appropriate responses, a different kind of response being provided for each meeting. The questions for discussion are both interesting and practical, and include topics for the ladies as well as for the gentlemen members of the Club for a large portion of the year. Special feature meetings are numerous, including Children's Day in June, Pioneer Day in July, the meeting held on the 4th, a union picnic in August with Lapeer County Farmers' Picnic, and a Club fair in October. A feature of the programs worthy of special mention is the discussion of all different kinds of farm stock, including poultry, at the February meeting, each different kind being assigned to a separate speaker, while alfalfa is a special topic for discussion in May and apples in November, and at the December meeting the topic for general discussion is "My Greatest Mistake of 1911."

CLUB DISCUSSIONS.

Pass Resolutions Opposing Canadian Reciprocity.—The Hadley and Elba Farmers' Club held their last meeting at Maple Lawn, the home of Mrs. and Mrs. George Schanek, April 20. The roll call revealed many "Things we can get along without." A reading by Cassie Mott created a spirited discussion on "Economy; what it is; how to practice, etc." Mrs. Lewis Riley proved most conclusively that the college bred woman has a decided advantage over the less educated woman, and that good common sense is an essential factor in all walks of life. Economy, self-control, system and centralization of thought are some of the lessons learned in college. Owing to a misunderstanding J. S. Smith was not present and the remainder of the afternoon was devoted to the question box. The Club voted to reaffirm their attitude opposing the pending reciprocity treaty, and to implore our Michigan United States senators to vote against the measure. The Club also took action regarding the pending cold storage bill and elected C. P. Johnson and Lewis Riley to draft resolutions requesting the extension of time limit. All joined in singing and adjourned to meet at the Baptist parsonage with Rev. and Mrs. McLeod, May 18.—Mrs. C. P. Johnson, Cor. Sec.

The Farmer's Need.—The April meeting of the Assyria Farmers' Club was pleasantly entertained at the Base Line church, 40 being present to partake of the most excellent dinner and listen to a fine program. President Mayo called to order at 2:30. The Club sang "A Thou-

sand Years." Prayer by Rev. E. Morrison. "What does a farmer need most, more land, more labor, or more education?" This subject was led by A. T. Shepard and was ably discussed by a large number. It was thought it required more education to be a successful farmer. Certainly, if they had more land they would have to have more labor. Music, recitations, songs and a select reading by Mrs. Kate Cox, "The golden age of America," followed. Very many helpful thoughts were contained in the paper, which was fully appreciated. After a song by the Club, "America," the Club adjourned to meet at the M. P. church the fourth Saturday in May.—Mrs. John Hill, Cor. Sec.

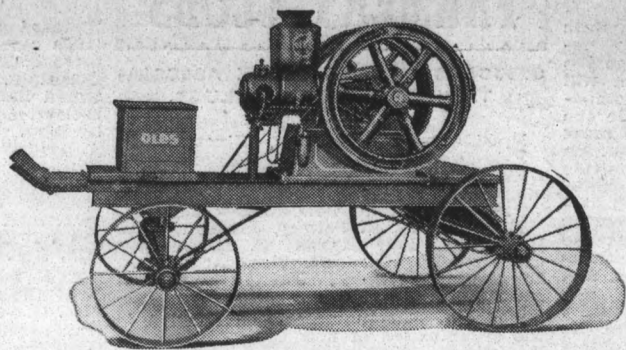
Add Ten New Members.—The Clover Leaf Club met at the home of Mr. and Mrs. O. S. Howe, with a good attendance. Our president, Walter Hazelwood, being sick, the meeting was called to order by our vice-president, Mrs. E. Hallock. After the order of business was over, we enjoyed an interesting Easter program. We also took in ten more members and we feel encouraged. Discussion on plowing for spring crops. Adjourned to meet April 22, with Mr. and Mrs. B. Camfield. We find it more interesting to meet twice a month. Meeting was called to order by the vice-president, our president not being able to attend, sent his regrets and hopes to be with us May 10. After the order of business a fine program was rendered. A discussion on horse play at weddings, led by Mrs. J. Wheeler, drew out many incidents and caused a lively time. Also a discussion on seed corn testing and selection. Meeting closed with song by the Club.—Mrs. O. S. Howe, Cor. Sec.

Discuss Pleasant Homes.—The Assyria Farmers' Club held its March meeting at the very pleasant farm home of Mr. and Mrs. A. T. Shepard, 135 members and friends being present to partake of a most excellent dinner and listen to the fine program. A paper composed by Mrs. Mary Mayo and read by Mrs. Julia Cummings, was interesting and was enjoyed by all. Music, recitations, and songs followed. Discussion, led by Mrs. A. D. Olmstead, on "How to make pleasant homes," was ably presented. It was thought that if each and every member of the home were pleasant, one to the other, and husband and wife use the money whenever needed as they see fit to do so, would make a pleasant home and keep it pleasant. The financial report of the Club for 1910 was given, and the Club found to be in a flourishing condition. The Club sang "God be with you till we meet again," then closed to meet the fourth Saturday in April at the Base Line Church.

Discuss Co-operation.—Genoa Farmers' Club was entertained by Mr. and Mrs. John W. Lawson, Thursday, April 20. It being a very busy time among farmers the attendance was not as large as usual but a jolly company met there and enjoyed everything, from pork and beans for dinner to the last thing on the program. A. J. Meyer was with us after six months' absence and gave a very interesting talk that was much enjoyed by all. A good literary and musical program was rendered. With an excellent talk on co-operation among farmers by A. J. Meyer, a couple of songs by the Club and a number of good questions, we had a most interesting program.

Elect New Officers.—The Norvell Farmers' Club met at the pleasant home of Mr. and Mrs. V. E. Roberts, April 29, with a good attendance. The forenoon session resulted in the re-election of the old officers for another year, C. P. Holmes, president; D. S. Fuller, vice-president; Mrs. Clyde Beckwith, secretary; F. C. Beckwith, treasurer; Mrs. Wm. Ray, chairman of menu committee. Lewis Kimble and D. S. Fuller were appointed on the program committee. After an enjoyable repast the meeting was called to order by President C. P. Holmes and a good program was rendered. Roll call was quite well responded to with current events, interest being shown along the line of pure food laws, parcels post, local option, bills in the legislature. The select reading by Miss Elma Holmes, bearing upon arbor day, was full of sentiment and called forth some discussion. The reciprocity bill was dwelt upon and Dr. E. N. Palmer's idea seemed to be the sentiment of many, that no one could tell the result until it should be tried out. He also thinks the American people and the American Farmer can get together under a low tariff or under a high tariff but that we should let well enough alone. More money is invested and prices are better when things are settled. Cold storage was spoken of and nearly all agreed with Mr. Halladay that it is a good thing for the farmer though much abused. D. S. Fuller and W. Lowry think there should be some bill passed to regulate and prevent the holding of products past the point of usefulness.

Discuss Crop Rotation.—A pleasant and profitable meeting of the Odessa Farmers' Club was held at the home of Mrs. P. J. Fellows, Saturday, April 8. The meeting was called to order by President Carter, and after a good literary and musical program the topic for discussion, "The proper rotation of crops," was taken up by Mr. Z. W. Carter, followed by several others and many good ideas were presented on this very important subject. Mrs. H. E. Curtis then read a paper, "The best side of farm life," which proved to be very helpful and optimistic and certainly gave us the best side of the subject. The reading was followed by discussion. Here this report is written comes the sad news that another one of our number, Miss Mable Curtis, a fair young flower in the morning of life, is gone from us. Twice elected recording secretary and serving faithfully, we shall miss the bright spirit from our midst.—Cor. Sec.



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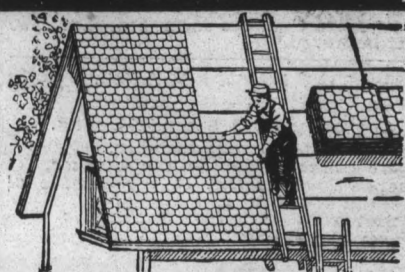
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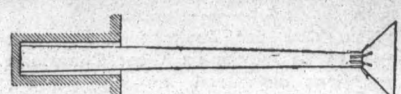
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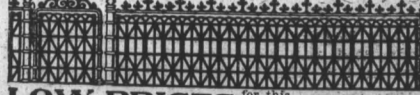
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