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THE COUNTRY HOME.

In concluding his editorial on "Rural Life," in the September magazine number of the Outlook, Mr. Roosevelt says:

"Above all, the conditions of farm life must always be shaped with a view to the welfare of the farmer's wife and the farm laborer's wife, quite as much as to the welfare of the farmer and the farm laborer. To have a woman a mere drudge is at least as bad as to have the man a mere drudge. It is every whit as important to introduce new machines to economize labor within the house as it is to introduce machinery to increase the effectiveness of his labor outside the house."

To this sentiment I, as a farmer and the father of a family of little children, wish to give unconditional approval. So keenly do I feel the grave importance of this problem that I am emboldened to lay aside for the moment the implements of the agriculturalist and take up the pen in its behalf.

In a certain city home of culture and refinement there lives, in the capacity of servant, a country boy of eighteen. His father is a prosperous farmer, owning many acres, with flocks and herds of which he is justly proud; but the boy prefers to cook, wash dishes and scrub floors in the city home for twelve dollars a month rather than live in the country, which he hates. The humiliated entreaty of his parents is unavailing. He remains doggedly at his post, taking Thursday afternoon off, with his three dollars in his pocket and a cigarette in his mouth. When country boys and girls feel in even a small degree as this boy feels, something is wrong. The home has not meant to them what home should mean to every child.

There is nothing, absolutely nothing, that is so tremendously worth while as a good home. It is the soil in which we raise character. Surely a crop of human souls requires more attention than a crop of potatoes. Also there is no place in the world that so lends itself to the making of an ideal home as the country, which so generously and lavishly provides the ideal setting of green fields and running brooks and deep forests. Certainly, if anywhere, we ought to find the perfect home on the farm.

But home is more than the matter of a clean house and three meals a day. These form its body; it also has a soul, so subtle that it is easily overlooked, and so vital that the home is a poor thing when it droops and a dead thing when it is gone. This soul of the home is the spirit of the mother; and it should be guarded as we guard life itself.

This fact makes it of first importance to have every modern convenience in the farm home, and to take every possible step to lighten the housework, since, due to the scarcity of competent domestics in the country, the full burden will often unavoidably fall upon the shoulders of the farmer's wife.

One of the heaviest burdens commonly imposed upon the farmer's wife is the

boarding and lodging of the farm help. It affords me no little satisfaction to reflect that within two years after my promise to love, cherish and protect, I built at an expense of five hundred dollars (our combined assets being less than three thousand), a small tenant house. This little house is comfortable and convenient; my man, hired by the year, enjoys the companionship of his family circle, leaving me to the enjoyment of mine. One burden is thus lifted from the shoulders of the maker of my home, and I find that generally speaking, married men are better workers, more steady, more plenty, more industrious, and more anxious to please than the younger men who have no family responsibilities.

Our own house, in common with very many of the more modern farm houses, is equipped with a satisfactory heating plant. We have the hot air system. Steam and hot water have many advocates, and some unquestionable advantages; but the first cost is much less with hot air, our plant complete costing only two hundred dollars, while either of the other systems would have cost five or

tanks on the second floor furnish head, and a small gasoline engine, costing sixty-five dollars and located in the basement, does the pumping. We have storage for one hundred and twenty barrels of soft water and a good drive well furnishes hard water in unlimited quantities. Our bath room is complete in every particular, lacking none of the features that we find in the bath rooms of our city friends. A sewer one hundred and seventy-five feet long carries the sewage from the house. The whole system complete cost us three hundred dollars.

The days when the weekly washing was an ever-recurring bugbear are happily no more. We have a laundry in the basement which is equipped with a power washing machine and wringer run by the same gasoline engine that does the pumping. This machine cost thirty-three dollars and I never made a better investment. Hot and cold soft water is on tap in the laundry and a short hose attached to the faucet carries it to tub, washing machine and boiler, with no lifting. The floor is cemented, with a good fall to

FARM NOTES.

The Spring Work.

The backward nature of the spring which prevented getting the oats in early, has delayed the preparations for the other spring crops, with the unavoidable result that the average farmer finds himself confronted with more than the usual amount of pressing work. The usual tendency under such circumstances is to hasten the preparation for the other crops in order to get them in on time, even to the slighting of the preparation of the seed bed. This is particularly true with the corn crop, but experience generally teaches us that it is unwise to slight the preparation of the soil for this or any other crop. If the weather is favorable after planting time all may turn out well, even if the job of fitting the ground is hastily done. But if the weather is cold and wet, as is often the case, then the grass and weeds will grow rapidly and the corn will come on slowly, and there is a greater loss of time in getting the corn clean after it gets large enough to cultivate than would have occurred had the ground been well fitted before planting. It pays to harrow the corn ground thoroughly enough to get a good firm seed bed and a fine level surface, even if planting has to be delayed a few days to accomplish the work, as it will grow enough more rapidly to make up for the lost time and the spike-tooth and weeder can be used much more effectually before the corn is large enough to cultivate than is the case where the fitting of the ground has been slighted before planting.

Another thing which should be considered in planning out the spring work is the uncertainty of future weather conditions. Where potatoes and beans, and particularly the former, are included in the rotation of crops grown on the farm, the land for these crops should be plowed as early as possible, while the soil is well supplied with moisture. If this is done the soil can be gotten in much better condition before planting time arrives, and we will be certain of enough moisture in the soil to insure quick growth of the seed after

these crops are planted. But in case the ground is not plowed until late, dry weather may intervene and the moisture stored in the soil from the spring rains become evaporated. When this occurs it is impossible to prepare as good a seed bed as is desirable, and often a poor stand results from the absence of sufficient moisture to germinate the seed, and a poor and uneven growth results because there is not enough moisture present in the surface soil to supply the needs of the young plants. But where it is impossible to plow the fallow ground early for the late planted spring crops, it is advisable to take steps to conserve the moisture from the spring rains. This can be done by a thorough disking of the stubble fields which are to be plowed later. This takes a little time, but the results will more than pay for the labor



Farm Home of A. B. Cook, of Shiawassee County. (See Illustration of Interior on Page 522).

six hundred. The advantages of the more costly systems seem to us to be fairly offset by our more perfect ventilation, the promptness with which we are able to remove the chill, and the absence of radiators, which usually occupy the most desirable spot in each room and always considerably increase the labor of sweeping day. However, any system of heat, with the accompanying dust and litter of ashes and fuel, relieves the housewife of another burden, and a heavy one.

Our home is almost unique among the homes of our vicinity, in having a complete and entirely efficient system of water-works and plumbing. At the kitchen sink, hot and cold water and cold hard water are on tap. Hard and soft water

wards a sluice leading to the sewer. The pulling of a plug is all that is required to get rid of the water. The boiler is heated by a small gasoline stove close to the wash bench. The power wringer slides the entire length of the wash bench so that it can be used on the washing machine or tubs.

The stress of ironing day has been greatly lessened by the purchase for three dollars and a half, of a gasoline flatiron. This iron, which uses only a pint of gasoline for four hours of ironing, is constantly hot and always clean, a wonderful saver of time, strength and fuel.

Among other conveniences and labor-savers I would mention: Hardwood floors, a bread-mixer, a good gasoline stove in the kitchen, one or more roomy closets

(Continued on page 522).

involved in the resulting conservation of moisture, for after all, no matter how well a soil may be supplied with available plant food, unless there is sufficient moisture present in it to supply the needs of growing plants, the results cannot be satisfactory.

Seeding Wet Land.

I have a piece of light sandy land that has not been cropped for two seasons. Volunteer red-top had formed a sod over a large portion of it and there are patches of Canada thistles. Water sometimes stands on about two acres. I plowed most of it last fall. My idea was to summer fallow it and seed the latter part of this summer. To get it seeded is my purpose, so please advise me through the columns of your paper the best course to pursue; also, how to get rid of the thistles. Would you seed with mammoth or June clover or alsike on the ground that sometimes has water standing on it? Would you sow any timothy on this kind of land?

Van Buren Co.

G. B.

The plan of summer fallowing to get rid of the Canada thistles preparatory to seeding it is an excellent one. In fact, this is the only certain way of eradicating the thistles effectually. Where the land is low or poorly drained, as a portion of the land described would seem to be, alsike clover will be much better adapted to it than either Mammoth or June clover. If you desire to have the land remain in grass more than one, or two at the most, years, it would be well to sow timothy with the clover, and as redtop apparently does well upon this soil, it might be profitable to include it in the mixture, although if it runs in naturally, as described, this might not be necessary or advisable. Other grasses might be included in the mixture which are suitable to wet soils, provided it is intended to leave it in grass permanently. A mixture suitable for low ground is given in answer to another inquiry in this issue. If the land is kept well cultivated until midsummer, and the grass seed sown thickly without a nurse crop, it should become established so as to give a fair yield the next season.

Seeding Muck Land.

I have a four-acre field of muck, about three feet above water in ditches. Part of it has been cropped three or four years. The last of June, 1910, I plowed it and fitted it well and sowed it to four quarts of millet, three quarts alsike, one quart timothy; got a good stand of millet and weeds but no clover or timothy. What would you advise me to do to get it into a permanent pasture as soon as possible?

Van Buren Co.

J. V. C.

For low-lying lands which are naturally moist, but on which the water does not stand to any appreciable extent, the following mixture of grasses would answer for a permanent pasture not laid down for too long a time: Alsike clover, 3 lbs; Russian brome grass, 5 lbs; redtop, 6 lbs. and timothy, 6 lbs.

Where the pasture is to be laid down for an indefinite period fowl meadow grass and Kentucky bluegrass should be added to the mixture, unless the bluegrass has occupied the land before, and will naturally run in of its own accord. The best method of seeding would be to prepare a good seed bed by frequent cultivation until midsummer, and then sow the mixture of grasses under as favorable soil conditions as possible.

Making a Water-tight Cistern.

I made a square cistern six feet deep and with 6-in. concrete walls. I made a wash of cement and water and put it on with a whitewash brush four or five times, but it don't hold any water. It drains out dry. What can I do about it? Before I applied the cement wash I plastered it with sand and cement.

SUBSCRIBER.

If a good job of plastering and washing this cistern with cement were done, there should be no difficulty in making it water-tight. Perhaps the cement plaster was not made rich enough. It should be made about 1 to 3 for satisfactory results and cement wash applied over it. The concrete should be thoroughly moistened before plastering.

LILLIE FARMSTEAD NOTES.

April 26, 1911.

The season has finally squared off and the land dried up so that we can put in our spring crops. Today we have 16 acres of oats sown, the land worked up in good shape and we have got them in in excellent condition. With a favorable season from now on I expect to have a splendid crop. These oats are on good land and I expect anywhere from 60 to 80 bushels per acre. We will see how near I come to it.

A 20 acre field for oats and peas is practically fitted and 15 acres of it drilled and with favorable weather conditions we hope to get the whole 30 acres of

peas and oats in this week. With two good three-horse teams on the pulverizers and spring-tooth harrow and a good team for the drill, if the weather is at all favorable, one can put in a crop rapidly where he does not stop to plow. Personally, I prefer a corn stubble or potato stubble well disked up and a good melon seed bed made to land that has been plowed. I think you will be more apt to get better results, especially if the weather is inclined to be dry. Of course, we are using fertilizer on the oats and on the peas. I would not think of putting in a crop of oats or a crop of peas and peas without a good liberal dressing of fertilizer, even on land that has been in a short rotation with clover. The liberal use of fertilizer to give the plant a start and carry it forward, and ripen it up will be a profitable investment.

The Alfalfa is Not Dead.

A few fairly warm spring days have started the plants to growing and I am happily surprised at the condition. I have gone over both fields carefully during the week and I am satisfied that I have prospects for a crop. On the field that was seeded without a nurse crop a year ago last fall, where other grasses were mixed with the alfalfa on a portion of the field I have a fairly good stand of alfalfa where it was sowed alone and there is quite a sprinkling of alfalfa in with the other grasses. The other grasses are looking fine and I think I shall get a fair crop of hay for the first cutting; of course, what I shall get for the second cutting I can not tell. Now, on the field that I seeded to alfalfa with the oats a year ago I have what seems to be a splendid stand, and I do not believe scarcely any of the plants were winter killed. In one little sag in the field where the under drain did not seem to take the water out soon enough, some of the plants are killed out, and some of them are lifted out of the ground some, but even here the tops of them seem to be green and I believe there will be quite a growth of alfalfa even there, but on the greater portion of the field, in fact, on nearly the entire field, the alfalfa looks more promising than my new seeding of common red clover which I consider a good fair stand, and from present indications will make a good crop. Of course, my experience with alfalfa is not sufficient so that I know what I am going to get. I am simply stating the prospects. It will be remembered that I did not inoculate the soil with nitrifying bacteria on this field that I seeded with oats last spring, and I did not apply lime except on one strip. But the most of this field was into beets the year before and received an application of lime. It will also be remembered that on one portion of this field I seeded alfalfa alone at the same time I sowed the oats. Now, at the present time the alfalfa does not seem to be very much better where it was seeded alone than it does where I got 61 bushels of oats to the acre. I have just recently read in some agricultural paper the writer being connected with some experiment station, that his observation is, where land has been treated thoroughly with stable manure there is little need of inoculation. This is a new idea to me but I believe from the results I seem to have got on this field that there may be something in it. If the land has been well farmed and stable manure has been used liberally in the rotation, it may be that it is not so necessary to inoculate the soil for alfalfa.

Good Wheat.

I certainly have no complaint to make about the prospects for a wheat crop this year. My 55 acres of wheat is in splendid condition. The whole of it is on land that has not received any stable manure for more than 20 years. I have the prospect of a 30 or 40 bushel crop on 40 acres. To me this is encouraging because it shows me what can be done, at least in a favorable season on land without stable manure by the use of commercial fertilizer and a clover sod. With a clover sod to furnish vegetable matter in the soil and commercial fertilizer to help out by way of plant food this 40 acres of wheat would seem to indicate that one should get along comfortably without any stable manure. I don't wish to have my meaning construed in such a manner that I am in any way depreciating the fertilizing value of stable manure. No one thinks more of this fertilizer than I do myself, but we haven't enough to go round. I use all the stable manure we make on the fields near the barn and don't have to haul it so far. Now, the problem to me is to keep up the fields

that are over a half mile from the barn and still raise profitable crops, and I believe I can do it.

Cleaning Up.

As I have stated before, we did not get through with our improvement jobs last fall but had to leave them when the cold weather came. Now this year we are going to try to pick up the farm a little bit, fix it up and get it into better condition. It has been in horrible condition, but it couldn't be helped. It was just such a condition of affairs that one couldn't have it different. But the main jobs are now done. I think we can get it in shape so that it will look more as if somebody lived there than it did the past summer, and does at the present time. I have planned no great amount of improvements for this season. I am building now a cement tank that will hold about 100 barrels and I have got to build a well-house, and such minor improvements as that, but other improvements will have to go, and we are going to tend more strictly to the farming this year. If the alfalfa is such a wonderful plant as some seem to indicate, and mine comes on as it look now as if it might, we will be haying a large portion of the summer and won't have time to tend to improvements.

COLON C. LILLIE.

THE RETIRED FARMER.—II.

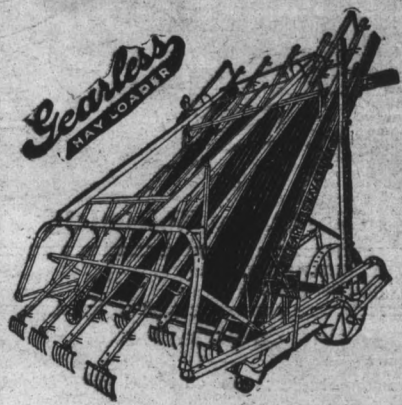
The modesty of retired farmer No. 2 of this series compels one to leave his name and residence unmentioned. He is of the military type; white moustache and goatee and wears the grand army button, his commission entitles him to be called captain. Like Cincinnatus of old, he left the plow for the battlefield, but instead of fighting with the musket he was with the engineering corps.

There may be some question as to whether it is the retired soldier or the retired farmer that this article relates to but the facts may be read regardless of this doubt. His skill early in the civil war was manifested along the lines of building roads and bridges, and he was assigned to engineering work by discriminating officers. A discriminating community recognizes this skill and unofficially but equally effectively the roads and bridges show calculations based on Kent or Trautwine rather than according to the rules of guessing. From the grade of the roadbed to the location of farm buildings in the community it was evident someone had exercised an influence. The village was the center of a Grange, the spirit of organization that came from a military training was manifest. Not the centurion's command to go and he goeth, or to another come and he cometh, but that friendliness of spirit from which advice is sought and counsel given. When there were bridges to be built the township authorities sought his advice, not only for the public benefit but to witness the surprise that came to bluff, glib-tongued salesmen of iron bridges when this venerable man would tell them more about bridges than they ever knew. When he pointed out to them the enormous profit measured by the pounds of material proposed the township was many times saved from extortion. It might also be said that this township was among the first to put in artistic concrete bridges of long span arches and as enduring as time, under the competent leadership of this retired farmer.

When a new schoolhouse was to be built some of the school officials would discuss the subjects of architecture and ventilation. At the public service were placed the latest ideas from building journals. The same was true of farm residences, not only from the standpoint of architecture but with reference to location and of safe distances in case of fire. The roads, the bridges, public and private buildings, all bear the impress of a trained mind. Here was an example where a community had the rare good fortune to have a retired farmer imbued with the spirit of helpfulness and what was quite as remarkable, an appreciation that was made manifest by utilizing that acquired skill in material works.

One man, in commenting upon the difference between the social gatherings of this community and of places he had known elsewhere, was in this way. While in his former location social gatherings discussed the frailties of humanity, commonly called gossip, here where social leadership existed the strong forces of steel, concrete, ventilation, architecture, etc., were the topics given attention. Shlawassee Co. JAS. N. MCBRIDE.

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THE SILVER CUP

at the recent Spokane Fair was awarded to the Alberta Government for its exhibit of grains, grasses and vegetables. Reports of excellent yields for 1910 come also from Saskatchewan and Manitoba in Western Canada. Free Homesteads of 160 acres, and adjoining pre-emptions of 160 acres (at \$3 per acre), are to be had in the choicest districts. Schools convenient, climate excellent, soil of the very best, railways close at hand, building lumber cheap, fuel easy to get and reasonable in price, water easily procured, mixed farming a success. Write as to best place for settlement, settlers' low railway rates, pamphlet "Last Best West" and other information, to Dept. of Immigration, Ottawa, Can., or to Can. Gov't Agent (64) M. V. McInnes 176 Jefferson Ave., Detroit, Mich. C. A. Laurier, Marquette, Mich.

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A CORN FAILURE.

I had a six-acre field of corn last year which was a complete failure. I cut it with a binder and drew it in the bundle, five loads from the six acres, and I figure there were about ten bushels of nubbins in each load. This field was rye plowed under for beans. The rye was seeded to clover; the rye was pastured and the clover catch was fine. The next year about June 10, I plowed this heavy clover under for potatoes. I also drilled 400 lbs. of high-grade fertilizer in the row for potatoes, (the potatoes were fair, considering the drought). This brings us to last year when I plowed and planted the field to corn, with the failure as noted above. The seed corn was all right and the stand was perfect, but when the corn plants were from four to eight inches in height they began to lose their natural green color and turned to a sort of a "pale, sickly red" color. What was the trouble? Does this denote an acid soil? Is there danger in plowing under too much green manure? My soil is a sort of gravelly loam. It has symptoms of being leachy. I would add that I have covered this field with manure by use of spreader and intend to sow to oats and seed to clover again. Do you think a tongue truck is a valuable addition to a seven-foot binder? Does the placing of the team so far ahead of the binder add to the draft or does the truck more than offset it?

Hillsdale Co. L. W. M.
I should certainly be suspicious that the soil was acid and the acid was caused from plowing under a too large amount of green, young, succulent clover in hot weather at one time. One certainly does have to be careful about adding a large amount of green forage crop to the land at one time, especially during hot weather. It is always better to let this manuring crop ripen and plow it under after it is fully matured, than it is to plow it under when it is green and succulent. The ideal way to add vegetable matter with the clover plant is to cut the first crop for hay and let the second or after-math grow and ripen on the ground, and even to remain on the ground until spring before it is plowed under. Then there is practically no danger of the formation of organic acid in the soil.

An instance of this character came under my own observation of plowing down a very thrifty growth of green rye, and then planting the field to corn. This corn was practically a failure and I attributed it to the fact of so much green matter being plowed down in hot weather. It not only made the soil slightly acid but the rye had pumped all of the moisture out of the soil, and then when it was plowed down, from that time on the season was dry and the corn crop did not have a sufficient amount of moisture to carry it forward.

L. W. M. can ascertain readily whether his soil is acid or not by the use of blue litmus paper. In this particular instance from the description given I am also inclined to think that the soil lacked available nitrogen for the growth of the corn plant. One might say that here is that whole mass of clover plowed down and it ought to contain nitrogen enough, but it is a question if the clover being plowed down as young as it was had accumulated very much nitrogen in the soil. The clover plant has to practically mature before very large nodules appear on the roots. By plowing the plant down too young you do not get its nitrogen-gathering power or effect, and owing to the fact that the corn turned palish green and in some instances yellow, it would indicate that there was a lack of sufficient available nitrogen in the soil. The clover plant is very helpful in improving the mechanical condition of the soil, but its manual effect is rather slow. One has to wait quite a long time for this mass of organic matter to become transformed into humus and disintegrated by means of bacteria so that the plant food which it contains is available to plants. Once let a soil get into bad condition, once overwork it, once use up closely the accumulated available plant food and it takes the clover plant quite a long time to get it in proper condition again. It will do it after a time, but the question of time is nothing with nature. This is nature's way of improving the soil, but nature cares nothing for the element time, and the farmer is very much interested in this. He wants to get profitable crops every year.

I think a tongue truck for a grain binder is a good thing. They cost nothing extra and once in a while you want to use one. If you have to move the binder for any considerable distance on the public highway it is almost a necessity. If the highway is piked up so that it is any way rounding it is difficult to move the binder from one place to another without having the table drag on the ground. By having the tongue truck you can

move it then just as well as you could a wagon. The tongue truck is also very handy in going through narrow gates. As a matter of fact, I would very much dislike to buy a binder that didn't have a tongue truck. COLON C. LILLIE.

BEST CORN FOR SILAGE.

Please state in the Michigan Farmer what corn makes the most silage. Last year I planted the yellow dent, but that don't get big enough, so I wish you would tell me of some kind of corn that grows larger. My silo is 12x30 ft. and I wish that I could get some kind that would fill it from 6½ acres. That is all the land I have for it this year. Kent Co.

SUBSCRIBER.
Considering both quantity and quality of ensilage, the best corn for ensilage is the variety of yellow dent that will properly mature in any given section. Of course, you can get a southern variety of ensilage corn which will grow abnormally large for this northern country, and you can get a larger yield to the acre from this kind of corn, but you will not have as good ensilage and it probably will not contain as much dry matter per acre as corn that will properly mature here, but you can get greater bulk.

Now there ought not to be any great difficulty in filling a silo 12 feet in diameter and 30 feet deep from 6½ acres of land. That would make only about 10 or 12 tons to the acre, because this size silo will have a capacity of 70 to 75 tons. If the land is rich, and the seed corn good, and it is given proper cultivation there ought not to be any trouble to raise enough to run the silo over the top, but you can't raise big corn on poor land. You can't raise big corn on any land that isn't in good condition for corn. If the land isn't in good condition you may have an absolute failure of the corn crop.

There is nothing better than a good clover sod covered with good stable manure and plowed down for corn. Then, if it is plowed early, well fitted, and good seed corn used, and a dressing of fertilizer used to give the corn a good start, there ought not to be any trouble to fill a silo of that size, and even a larger one, from that amount of ground. But, on the other hand, if you haven't got the clover sod, or if it has not been heavily manured with stable manure, then the probability is that you will not have corn enough to fill it. If the land is not rich it must be made rich if you want to raise a big corn crop. If the land is not put in good condition by proper plowing and proper fitting so as to give the corn a good start, you will not get it under any conditions. If you haven't got the clover sod and haven't got the manure, if you will put the land in good condition by proper working you can make this land rich with commercial fertilizer and get a big crop of corn. It is only a question of applying a sufficient amount of fertilizer and putting it on early enough to get it dissolved in the soil moisture and evenly mixed with the soil so that you can get the benefit from it. The whole proposition is up to you. If your land isn't already rich enough to grow a good crop of corn, make it rich, and it will pay you to do so because there is nothing in the world so expensive to the farmer as a poor crop. There is no chance to make any money at all out of a poor crop but there is a chance to make some money out of a good crop. Nine times out of ten the poor crop of corn is the result of poor, unfertile land, rather than the variety of corn. With the corn crop as with pigs, the feed is more than half the breed.

COLON C. LILLIE.

TREATING FENCE POSTS WITH CREOSOTE.

I would like to know whether the coal tar product of creosote or the wood creosote is used in treating fence posts and whether it is necessary to heat the preparation.

Saginaw Co. I. M.
The coal tar product is the one used for treating posts and other wood to increase its service in the ground. It must be applied at a high temperature and for some hours to be effective. The usual method of treating is to have a metal tank so arranged that its contents may be heated with a fire below it, although the process of treating has to date been generally thought too expensive to make it profitable for the ordinary farmer to provide the needed equipment for the work. When our more desirable varieties of timber are no longer available, however, this treatment will increase the durability of timber not well suited for posts.



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LIVE STOCK

THE OUTLOOK FOR SHEEP.

The sheep feeder's bubble has "busted." Last year prices flew skyward and as fast as they rose more farmers turned to feeding the woolly feeders. Speculation surely ran riot but, as the old story has it, "all which goes up must come down." While prices never will drop where they were ten years' back, they have taken an awful tumble from the high level of last year; and gloom invades many sheep camps.

The farmers who came to market last year imbued with the desire to buy feeder sheep or lambs, feeder ewes or breeding ewes now lament their investment and many vow never to feed another "bleater." They left cattle or hog feeding to try sheep feeding; and, because they lost in the game which was absolutely new to them, they forget the losses they encountered in other stock feeding. Farmers who bought breeding stock, now find lambs selling low and often the new ewes fail to breed satisfactorily, thus yielding but a poor crop of lambs. It is a settled fact that large operators who stock up on breeding ewes extensively seldom turn the deal to a profit. Their failures and the failures of the new men who bought up a larger herd of feeders, so discouraged the new operators that few will again start feeding or breeding sheep.

The old experienced sheep men do not regret this state of affairs for, during the following season, prices for fat sheep and lambs will therefore go higher. There is no safety valve which prevents disaster when numerous new operators jump into sheep breeding or feeding; but if men handle the business who are experienced, good substantial profits result.

Many sheep men tremble when they stop to speak of the tariff and their sheep business. The reduction of the wool tariff means lower prices for their wool and such a condition appears deplorable. However, the eastern farmer need not fear the reduction of wool tariff as much as the western sheep man. This reduction will drive out of business vast droves of sheep in the dry sections of the west, for there wool is the principal source of profit and cheap wool means failure. This depletion of the flocks of the west would materially reduce the amount of fat mutton which reaches the market and therefore farmers would receive more for the fat mutton they have.

Good mutton is a desirable meat and already has found great favor with the American people. For this reason the market will always demand a generous supply of fat mutton, and the moment the western supply of mutton is reduced eastern farmers will receive higher prices for their fat mutton.

No matter from what angle we look at this sheep raising proposition on the farm, profits appear wherever judgment and common sense methods have been pursued. All farmers will not make profits from sheep but on a vast majority of farms a small band of ewes would yield 50 per cent on the investment.

The small farmer is just the farmer who is in a position to handle the small flock most successfully; for he can give it his personal attention. To procure this flock is the most important step. The best plan to follow is to buy when someone else is anxious to sell. Stock up on the slumps and sell on the bulges for quick money. Buying breeding ewes now looks to be an attractive proposition and any one with the feed and room on the farm should buy up a few. In another year we may look for higher prices; by all means buy while the ewes are still cheap. The western sheep man will have few ewes for sale for some time so the prices are sure to climb again.

As long as the American people see mutton for sale they will buy and, as the population increases there are more mouths to buy for, more mutton will be consumed. The mutton market will weather all storms and sheep raising will return a profit to most eastern and central farmers.

There is little farm land too high-priced to warrant keeping sheep thereon. A good quality grade ewe flock, headed by a high-class pure-bred ram is as much a part of a well managed farm as a herd of cows, sows or mares. In every aspect the sheepman's outlook appears of a rosy hue.

SHEPHERD.

WEANING THE PIGS.

At the age of seven or eight weeks the pigs will have learned to eat grain and forage and can very properly be weaned. It is very important that the pigs be kept growing at this time. Stunting would mean that it would require a longer time to finish the pigs for market, thus postponing the cash returns from them and increasing the time in which the pigs are susceptible to disease. It also is a big waste of feed because the pigs are eating and not growing, at least not much, and all feed fed is wasted so far as growth is concerned.

When the sows are out on pasture they will require some attention. They cannot be cut off suddenly when on heavy feed without injury to themselves. Two things can be done to lessen this danger. They are to reduce the feed of the sows and to let the pigs suckle occasionally.

The sows had best be removed to a pasture where the green feed is very short or else put into a dry lot. This reduction of succulent feed has a strong tendency to lessen the secretion of milk. Then all slops and soft feed ought to be cut out for the time being.

The pigs may be allowed to suckle twice a day for a few days. Usually three or four will be enough for this, but it depends upon whether the sow appears to be drying up or not. If at the end of a few days the sow appears to be drying up nicely, one nursing per day will be sufficient, and after two or three days this may be discontinued.

Extra care given the pigs at this time will pay. A thick slop of shorts containing either 15 per cent of oil meal or eight per cent of tankage is one of the best feeds that can be supplied. Of course, if skim-milk or buttermilk are available there is nothing equal to them for pulling the pigs through this trying period. It happens that the pasture is often at its poorest at the season when weaning is done. Really this time is when the best forage is needed.

The smaller and younger pigs need special care at weaning time. If a big bunch of pigs are allowed to run together the smaller ones are sure to be trampled and injured and kept away from their just portion of the feed. To separate the pigs into different lots according to size will insure an equal chance for all and will enable a man to make good hogs of what might have become runts had the small ones been left with the older and more vigorous porkers.

To supply plenty of fresh, pure water is to do much toward insuring thrift at this time. Good, pure water is essential in keeping up a healthy bodily condition. Stagnant water from pools is a very common means of transmitting worms to hogs. For that reason pigs should not be given access to such places. If a wallow is desired one that is comparatively sanitary should be provided.

Lice are to be watched for and if any make their appearance an application of crude oil or a dipping in crude oil or two successive dippings in a coal tar dip will rid the pigs of them. A nice shady place where the pigs can lie in comfort during the heat of the day and digest their food is quite a factor in maintaining thrift. Everything possible with the production of quick and economical gains should be done. The pig makes the cheapest gains during the first part of his life and should be pushed from the start.

Iowa.

H. E. MCCARTNEY.

RAPE AND PEAS AS A HOG PASTURE.

In looking over the Michigan Farmer of March 11, I noticed an inquiry by S. Sloan in regard to rape and peas as a hog feed, and if not too late would like to answer.

Why not sow both pieces to both rape and peas? Sow the peas first and in three or four days sow the rape and harrow lightly. Sow about 2½ bushels of peas per acre and three or four pounds of rape. I should think your woodlot pasture would be sufficient pasture until the peas are just a little too hard for table use. With a movable hog fence divide your field, fencing off about half an acre. Turn in your hogs that you wish to finish for market first. When they get the peas about half eaten turn them into the next lot and put your stock hogs or sows with pigs in their place. They will eat the remaining peas and learn to eat rape also. Hogs will not eat rape readily at first but will soon learn to eat it.

For several years I have sown peas and

rape in my hog lot and after the peas are all eaten the rape will furnish green food until the ground freezes. I have never lost any hogs or pigs from rape, or had any pigs get sore or scurvy. The peas will give hogs a good start and a short feeding on barley, ground and soaked for 12 hours before feeding, will put them on the market before corn hogs come.

Last year, in addition to my hog lot I sowed three acres of peas alone, to harvest for seed; also six acres with rape, intending to hog down. I had about 40 hogs for early market, besides some sows with young pigs. I pulled the three acres with an old horse rake and put the peas in the barn.

The fields with rape, when peas were ripe, were a luxuriant green all over; the rape having grown up through the peas as they went down in ripening. Peas were high last year, being worth more than corn or barley and I thought I would see what the old rake would do on this field. To my surprise it did a better job than on the field that had no rape, as the rape held the peas up off from the ground and the rake pulled them up without damaging the rape. About one acre of the field had considerable rag weed in it and this I did not pull. From the eight acres I threshed 60 bushels of peas.

The six-acre piece adjoined the wood lot, and had a well so the hogs had plenty of water in troughs. When the hogs had eaten all the peas and rape they could hold they went into the woods and lay down. They made an excellent growth.

When the peas were gone my barley was ready and the hogs were brought up for finishing. There was considerable rape left. I turned some young cattle and colts in. They also had the run of the woodlot. Later I turned in some lambs.

The hog lot near the house was reserved for sows with young pigs. The sows had house slop, milk and barley meal. The little fellows ran through the fence into an oat stubble and corn field, and learned to eat corn by picking up an occasional ear that had blown down. Later the corn was put into a silo and the pigs harvested the ears broken off by the harvester.

I should think in your locality, Charlevoix county, rape, peas, clover, barley and hogs would be a pretty good combination.

Lapeer Co.

G. H. FORCE.

EXPERIENCE IN CATTLE FEEDING.

Several weeks ago I stated in an article in the Michigan Farmer that I would write some lines along the line of feeding cattle upon Michigan farms and give some facts and figures that I have kept account of for the last four winters while I have been feeding along this line.

I have never done any summer feeding, that is, feeding grain on grass and selling in the fall, to any extent. Have done all winter feeding for on an average of probably five to six months and usually selling about the first of April.

Having had a set of good farm scales adjoining my feed-lot, I have weighed my cattle and hogs often while on feed and kept an account of the gains and number of pounds of grain the cattle were eating and could also tell how many pounds the hogs were gaining from what they got from the steers. Have always fed unhusked corn for morning and night feed and shelled corn and hay for the noon feed. In doing this the hogs get more benefit than if the corn was all husked and ground.

In this article I give you the cost, gain and selling price of 102 head of steers that I have fed during the past four winters. The steers were purchased on the Chicago market by myself.

I find from adding up my figures on these steers that on home weights they made a total gain of 31,555 lbs. for 102 head, or an aggregate gain of 309 lbs. per head in 176 days, or 1½ lbs. per head daily; but the shrink in selling amounted to 56 lbs. per head for the 102 head, which brings the net gain down to 12-5 lbs. per head daily.

I received \$2,610.95 more for these steers than they cost. Adding to this \$500 gain on hogs by following the steers, makes \$3,110.95. Now deducting 50 tons of hay at \$10 per ton, or \$500, leaves \$2,610.95. The corn fed the 102 steers, an average of 70 bu. of ear corn per head, was 7,140 bu. This gives 36c per bu. for ear corn fed steers for the past four years.

Fully 100 acres of ground has been covered with manure from the steers alone. I think this a very practical test for the



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average farmer. This last fall steers were put in too high to make any money but we must do something along this line to keep up our farms.

The detailed figures relating to the four years' feeding are as follows:

Load No. 1.

Sept. 12, 1907, bt. 20 steers, wt. 18,960 lbs. at 4 1/2 c. Total cost, including freight \$ 887.20
Mar. 20, 1908, shipped to Buffalo, 17 steers, 20,940 lbs. at 6 c. 1,256.40
2 steers, 2,140 lbs. at 5 1/4 c. 112.35

Freight, commission, etc. \$1,368.75

Net proceeds \$1,310.34
One steer sold at home, 1,000 lbs. 36.32

Total net proceeds \$1,346.66
First cost 887.20

Net gain \$ 459.46

Load No. 2.

Sept. 1, 1908, bt. 22 steers, wt. 19,140 lbs. at \$4.20. Total cost, including freight \$ 832.59

Mar. 27, 1909, sold to shipper at Somerset, 22 steers, 26,330 lbs. at 6 c. 1,579.80
First cost 832.59

Net gain \$ 747.21

Load No. 3.

Oct. 5, 1909, bt. 20 steers, wt. 19,090 lbs. at \$4.40. Total cost, including freight \$ 868.60

Apr. 1, 1910, sold to shipper on home scales, 20 steers, wt. 25,455 lbs. at 6 1/4 c. 1,590.93
First cost 868.60

Net gain \$ 722.33

Load No. 4.

Oct. 5, 1910, bt. 20 steers, wt. 21,840 lbs. at \$5. Total cost, including freight \$1,124.76

Mar. 7, 1911, sold in Buffalo, 20 steers, wt. 24,870 lbs. at \$6.10. \$1,517.07
Expenses deducted 60.58

Net proceeds \$1,456.49
First cost 1,124.76

Net gain \$ 331.73

Load No. 5.

Oct. 5, 1910, bt. 20 steers, wt. 19,550 at 5c. Total cost, including freight \$1,006.00

Mar. 20, 1911, sold in Buffalo, 20 steers, wt. 23,600 lbs. at 6c. \$1,416.00
Expenses of shipping 59.78

Net proceeds \$1,356.22
First cost 1,006.00

Net gain \$ 350.22

Summary.

| | Cost. | Sell. | Bal. |
|-------------|-----------|------------|-----------|
| 20 steers.. | \$ 887.20 | \$1,346.66 | \$ 459.46 |
| 22 steers.. | 832.59 | 1,579.80 | 747.21 |
| 20 steers.. | 868.60 | 1,590.93 | 722.33 |
| 20 steers.. | 1,124.76 | 1,456.49 | 331.73 |
| 20 steers.. | 1,006.00 | 1,356.22 | 350.22 |

102 steers.. \$4,719.15 \$7,330.10 \$2,610.95

Recapitulation.

Total number of lbs. bought..... 98,580
Avg. wt. of 102 steers, lbs. 966
Total number of lbs. sold..... 124,338
Avg. wt. of 102 steers sold, lbs. 1,219
Total gain on 102 steers, lbs. 25,755
Avg. gain per steer, lbs. 253
Total number of days feed, days.. 880
Avg. number of days on feed, days 176
Avg. gain per steer per day, lbs. ... 1 2-5
Avg. gain per steer per day on home weights, 1 1/4
Jackson Co. CHAS. GOLDSMITH.

Considering the depletion of the ranges by the serious drought experienced last year, the supplies of cattle and sheep now going to feeding sections are not too large for meeting future wants.

The distilleries are doing their share in fattening cattle for the market, and reports come from Kentucky that more distillery cattle are on feed at the present time than a year ago.

The Drovers' Journal points out in a recent issue that progressive farmers should begin to raise more of their calves, as dependence upon western ranges for furnishing stock cattle for the corn belt farmers must be given up shortly. Feeders are commanding extremely high prices, and silos point the way for economical beef raising. The farmers who have built silos and filled them in recent years, feeding out the silage to cattle, have found that it paid well. The agricultural experiment station tests in feeding silage have demonstrated that it is a more profitable feed in connection with corn and cottonseed meal. Recently the Illinois station completed a silage feeding test in which the value of silage as a supplemental feed was clearly demonstrated. Indiana, Iowa and Missouri colleges also have conducted successful test feedings in recent years, and these should prove an incentive to farmers in the general use of silage. The Drovers' Journal suggests that the farmer who will cross well-bred milking Shorthorn, Angus or Hereford cows with a pure-bred bull and get his calves in the spring, allow them to milk the cows until they are old enough to go on a good bluegrass pasture, and in the fall begin to feed corn silage, gradually increasing the ration until they are on full feed, and then give them each day a little cottonseed meal, will turn off within 15 to 20 months a drove of yearling steers which will prove market toppers. The expense of making "baby beef" is smaller than many suppose, and most stockmen have found it a good paying business.



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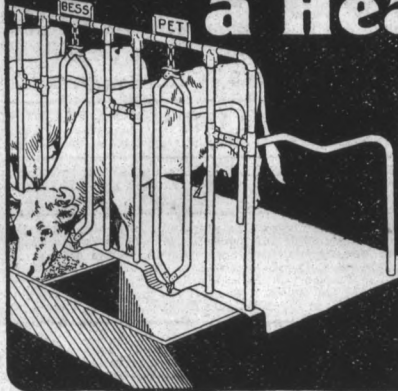
Spray the hen house regularly with Creonoid to kill disease germs, repel insects, suppress odors and prevent the spread of contagion. Sprayed on cattle it keeps the flies away, and the cows thus protected produce more milk.

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Cow comfort and cow sanitation result in more cow profits, and that alone should induce any farmer or dairyman to seek these conditions. Louden Sanitary Steel Stalls and Stanchions double the light and air in a barn and insure perfect ventilation, perfect sanitation—a result impossible with any wooden equipment. Yet

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are actually cheaper. Louden stalls of heavy tubular steel, with malleable fittings, have no flat surfaces for dust to accumulate—easy to keep clean and almost indestructible. Louden stanchions give cows more comfort than other makes, yet keep them perfectly lined up. Throat chains prevent cows from lying down when milking. Simple and very durable. Latch easily opened or closed with gloved hand, but can't be opened by animal. Send today for free catalogue of sanitary, money-saving barn equipment.

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Just fill out the coupon, telling me how many head of stock you have, and I'll send you enough Sal-Vet to feed them for 60 days. Test it on your sheep, hogs, horses, cows and cattle. Don't pay me a cent until you see that Sal-Vet really kills worms and is worth many times its price. Send now. A day's delay may cost you a valuable animal.

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worms. Tones up the system, sharpens the appetite, aids digestion, makes feed fatten quickly. Puts animals in tip top condition. They like Sal-Vet; eat it eagerly; doctor them selves. Prominent stockmen keep it in stable, pasture or feed yard all the time. Read this:

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Send to day
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PERMANENT
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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.

Atrophy of Muscles.—Some time ago a six-months-old colt ran against a barbed wire fence, cutting its breast open. For a while the wound healed, but there appears to be a space that has not filled out and I would like to know what can be applied that will do it good. H. S., Wayne, Mich.—Apply one part turpentine, one part aqua ammonia and four parts olive oil three times a week.

Ringbone.—I have an old horse that is troubled with ringbone; it causes him considerable lameness; therefore, would like to know what can be done for a case of this kind. W. B., Hamilton, Mich.—A ringbone situated low down on an old horse is generally incurable; however, benefit will be derived by applying one part red iodine of mercury and four parts lard to baffle once a week or ten days—or have him fired. Whoever treats him should insist upon the horse having absolute rest for at least two months.

Grease Heel.—I have watched the veterinary department quite closely, but fail to find treatment for my case. I have a 12-year-old horse with a swollen leg that oozes fluid. When this attack came on him he showed considerable pain and lameness, but it subsided in four days; now the leg oozes a fluid and is swollen. Have followed line of treatment prescribed by our local Vet. but it fails to help the horse. V. H. C., Cheboygan, Mich.—Your horse suffers from either grease heel or lymphangitis. Feed him less grain and more well salted bran mashes or roots to keep his bowels open. Also give a tablespoonful of powdered nitrate of potash and a dessertspoonful of Fowler's solution at a dose three times a day for a few days, then discontinue giving nitrate of potash, but continue giving Fowler's solution. Also dissolve ¼ lb. sugar lead, 3 ozs. sulphate zinc, 2 ozs. carbolic acid in a gallon of water and wet swollen leg three or four times a day.

Weak Fetlock Joints.—I have a two-year-old colt that seems to be troubled with weak fetlock joints in front and when traveling is inclined to stumble and knuckle forward. Have applied different kinds of liniment with rather poor results. A. K., Alto, Mich.—Clip hair off joints and apply cerate of cantharides once a week; this ointment will blister lightly and I fully believe you will get fairly good results.

Leucorrhoea.—I have a mare that has leucorrhoea; has been troubled since breeding her last season. She did not get with foal and I am thinking of breeding her again, but have my doubts about her getting with foal until cured. W. W., Sunfield, Mich.—Your mare will not get with foal if she suffers from chronic leucorrhoea. Dissolve 1 dr. permanganate potash in a gallon of water and wash out vagina daily until she gets well. Give her 1 oz. bicarbonate soda at a dose in feed three times a day.

Diseased Udder.—I have a cow that gives very little milk from one quarter of udder. This quarter of the udder does not seem to fill with milk. This cow was all right last year, until allowed to go dry. D. S., Montague, Mich.—Apply one part iodine and two parts vaseline to udder once a day.

Bruised Thigh—Fistula.—I have been a subscriber for many years and have never found it necessary to write before—can usually obtain necessary information from veterinary columns. One year ago last February my two-year-old colt was kicked on thigh, since then his leg has been in a suppurating condition. Local Vets have treated him for some time; a pipe formed in sore which we succeeded in sloughing out. C. E. S., Mason, Mich.—It is possible that the bone has become diseased or there may be a splinter of bone loose; if so it should be removed and the diseased bone scraped. Apply one part carbolic acid, two parts glycerine and 30 parts water twice a day.

Indigestion.—I have a Holstein cow seven years old that will come fresh next September. She is troubled with bloating and is inclined to become constipated. These sick spells come on her periodically. H. A. P., Ionia, Mich.—Give her ½ oz. ground gentian, 1 oz. ground ginger and 2 ozs. powdered charcoal at a dose two or three times a day.

Acidity of Stomach.—My cows all seem to have a desire, or rather a mania, for chewing boards, rails and sticks of all kinds. They even destroyed my gates. Is there anything I can do for them? G. S., Romulus, Mich.—Give each of the cows ½ oz. ground gentian, 1 oz. ground ginger and 2 ozs. powdered wood charcoal at a dose in feed two or three times a day for two weeks.

Enlarged Glands.—I have a cow that has a loose flabby bunch situated on right jaw bone and under her neck there is a lump about the size of a man's fist and I would like to know if her milk is fit for use. J. W. S., Wheeler, Mich.—I know of no reason why her milk should not be fit for use. The flabby bunch you speak of is perhaps an enlarged gland which is perhaps the result of a blow. Apply tincture of iodine once a day for ten days or two weeks.

(Continued on page 527).

THRIFTY STOCK

PAYS
MORE MONEY
GIVES
MORE SATISFACTION.

NO STOCK CAN THRIVE IF PESTERED WITH LICE, TICKS, MITES, FLEAS, SCAB, MANGE, AND OTHER SKIN DISEASES.

TO CLEAN OUT THESE PARASITES, GUARD AGAINST CONTAGIOUS DISEASES, CLEANSE, PURIFY, AND DEODORIZE USE

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BETTER THAN OTHERS, BECAUSE IT IS STANDARDIZED, UNIFORM, DEPENDABLE, EFFICIENT. ONE GALLON OF KRESO DIP NO. 1 MAKES 60 TO 100 GALLONS OF SOLUTION (DEPENDENT UPON WHAT USE IS TO BE MADE OF IT).

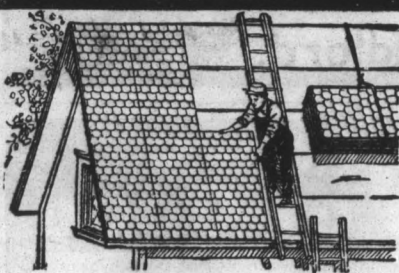
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The first or second \$1.00 can cures Heaves. The third can is guaranteed to cure or money refunded.



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As fine lot as there is in America, 3 to 4 years old, with lots of quality and good individuals, weighing or maturing 1800 to 2200 lbs.

Prices on Imported Stallions, \$1,000 to \$1,200. American Bred Stallions, \$600 to \$900. Importations to arrive Feb. 15 and March 1st.

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Stallions and Brood Mares
40 head of prize-winners to arrive March 25. Plenty of mares in foal. A guarantee with each animal. Prices reasonable.

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BELGIAN HORSES. If you are wanting to buy Draft Horses write H. H. JUMP, Munith, Michigan.

PIGS FOR SALE.

I keep about 2400 cholera proof brood sows and am selling fine grade

Yorkshire, Poland-China, Duroc and Tamworth Weaned Pigs at \$3 each.

ALVAH BROWN'S PIG FARM, GRAND RAPIDS, MICH.

T. C. ALCOCK, Temperance, Michigan, Live Stock Auctioneer. Write for terms and dates.

ARTHUR S. WILCOX, Jerome, Michigan. A LIVE STOCK and REAL ESTATE Auctioneer. WRITE FOR DATES AND TERMS.

EGGS FOR HATCHING—Prize winning White and Columbian, White Holland Turkeys, and White Guineas. Z. KINNE, Three Oaks, Mich.

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

BREEDERS' DIRECTORY.

CATTLE.

ABERDEEN-ANGUS.

Herd, consisting of Trojan Erics, Blackbirds and Prides, only, is headed by Egerton W. a Trojan Erica, by Black Woodlawn, sire of the Grand Champion steer and bull at the International in Chicago, Dec., 1910. He is assisted by Undulata Blackbird Itc. WOODCOTE STOCK FARM, Ionia, Mich.

Guernseys—A few choice young registered males for sale. Tuberculin tested. BALLARD BROS., R. 4, Niles, Michigan.

Guernsey Bull Calf for Sale—Nicely marked of breeding. WILL W. FISHER, Watervliet, Mich.

TOP NOTCH HOLSTEINS

Top Notch registered young Holstein Bulls combining in themselves the blood of cows which now hold and have in the past held World's Records for milk and butter fat at fair prices. McPHERSON FARM CO., Howell, Mich.

Holstein Friesian Cattle—BULL CALVES. Grandsons of Canary Mercedes. W. B. JONES, Oak Grove, Michigan.

Holstein Bull 6 months old, dam and sire's two dams average 25 lbs. butter and 476 lbs. of milk in 7 days. HOBART W. FAY, Eden, Mich.

HOLSTEIN BULLS—1 two years old, sire Admiral Prilly Walker No. 42562; dam Kokke Hengerveld De Kol No. 48390; 1 nine months old, sire Sir Koradyke Pterle Hengerveld No. 55929; dam Nora Inka Koradyke No. 109765. 1 8 months old, sire Johanna Concordia Champion No. 60875; dam Cora Burk De Kol No. 112542. The above are 3 of the best bulls ever offered for sale in the Mich. Farmer. L. E. Connell, Fayette, O.

DE KOL BULL CALF—Choicest A. R. O. Breeding and Individuality. COLE BROTHERS, Ypsilanti Farms, Ypsilanti, Mich.

HOLSTEIN BULL CALVES For Sale—From A. R. O. dams. Sire has 75% of the blood of the sire of Grace Fayne 2nd's Homestead. E. COLLIER, Fowlerville, Mich.

Holstein Bulls—Cows with a 12 lb. dam and 25-lb. g. dams and Hengerveld De Kol as g. sire. A prize for less than \$200. Also 3 more at bargain prices. LONG BEACH FARM, Augusta, Kalamazoo Co., Mich.

HOLSTEIN-FRIESIAN Cattle and Duroc Jersey swine. Bull calves for sale from A. B. O. Cows. E. R. CORNELL, Howell, Michigan.

FOR SALE—Holstein Bull 2 years old \$125. Bull Calves 6 months to 1 year \$50 to \$100. Bred heifers \$150 to \$200. Oldest herd in Ind. Send for Photos and Pedigrees. W. C. Jackson, 715 Rex St. South Bend, Ind.

FOR SALE—Reg. St. Lambert Jerseys. Cows and Bulls from high producing stock. C. A. BRISTOL, Fenton, Michigan.

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

LILLIE FARMSTEAD JERSEYS:

HERD BULLS—Vidas Signal St. L. No. 58197. Jubilee's Foxhall, No. 82299. Bull calves sired by these great bulls, and out of splendid dairy cows, many of them in test for register of merit. Also a few heifers and heifer calves for sale. Write for description and prices. Satisfaction guaranteed, or money refunded. COLON C. LILLIE, Coopersville, Michigan.

BUTTER BRED JERSEY BULLS

CRYSTAL SPRING STOCK FARM, Silver Creek, Allegan County, Michigan.

REGISTERED JERSEYS For Sale—Some combining the blood of St. Louis and Chicago World's Fair Champions by HERMAN HARMS, Reese, Mich.

Register of Merit Jerseys. Official yearly lot of young bulls from dams with official records of 483 pounds and upwards of butter. T. F. MARSTON, Bay City, Michigan.

FOR SALE

Registered Shorthorn Cattle, both sexes not akin. JOHN SCHMIDT, R. No. 4, Reed City, Mich.

Dairy Bred Shorthorns—Only one bull left. 10 mos. old. Price \$75 cash or good note. J. B. Hummel, Mason, Mich.

SHORTHORNS and POLLED DURHAMS. Both sexes for sale. A. D. DeGARMO, Highland, Michigan.

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Hampshire—Ewes bred for March & April: registered stock. Choice individuals. C. D. WOODBURY, Lansing, Michigan.

Oxford-Down Sheep and Polled cattle for sale. J. A. DeGARMO, Muir, Mich.

Oxford Down Sheep—Good Yearling Field Rams and ewes of all ages for sale. I. R. WATERBURY, Highland, Michigan.

Reg. Rambouillets—I have 100 ewes, among them also 55 ewe and ram lambs. Live 2½ miles east of Morrice on G. T. Road. Address J. Q. A. COOK.

SHROPSHIRE HALL STOCK FARM

Has for sale, twenty-five choice bred yearling ewes, at a low price, also a few good three and four year old, bred ewes.

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

HOGS.

Duroc & Victorias—Growthy Spring Boars & Gilts of choicest breeding from Prize Winners. M. T. STORY, R. 248, Lowell, Michigan.

Berkshires—Ten gilts bred to the wonderful Duke Pontiac Chief, to farrow in April or May. No better breeding. C. S. Bartlett, Pontiac, Mich.

FOR SALE—High quality fall Berkshires, shire Gilts, to farrow in June. Bred to the excellent young boar, Premier Bacon 4th. Rougemont Farms, Detroit, Michigan.

BERKSHIRE Yearling sow bred for July farrow. Also two fall Gilts and choice lot of March farrowed. (Pigs eith. sex.) A. A. Pattullo, Deckerville, Mich.

DAMS BROS., Litchfield, Mich., breeders of Imp. Chester White and Tamworth swine, service boars, sows bred or open, of either breed. Shorthorn Cattle, Buff Rock, Buff Wyandotte, W. Orpington, Chis. all breeding stock leading winners.

DUROC-JERSEYS—Nothing but pure bred. Gilts for sale. CAREY U. EDMONDS, Hastings, Michigan.

Duroc Jerseys For Sale—A few sows bred for summer farrowing and Spring pigs both sex. M. A. BRAY, Okemos, Michigan.

DUROC JERSEYS—Combining size, quality, breeding. Five choice boars, farrowed Sept. 22, 1910, weighing about 200 lbs. each at right prices. ORLO L. DOBSON, Quincy, Mich.

DUROCS—25 Bred Sows, of high quality. 10 Excellent Boars ready for service. 75 Fall Pigs both sex. Write or come and see. J. C. BARNEY, COLDWATER, MICHIGAN.

Duroc Jersey Bred Sows—1 Service Boar. Spring pigs. B. P. Rock eggs, 15, \$1.50; 30, \$2.50. J. H. BANGHART, Lansing, Mich.

IMPROVED CHESTERS—Young boars ready for service, orders taken for sows bred for spring farrow. Also Holstein Bull Calves of the best of breeding. W. O. WILSON, Okemos, Mich. Both Phones.

O. I. C. Hogs all ages. Sows bred and more. H. H. JUMP, Munith, Michigan.

O. I. C's For Sale—Best quality, large growthy type, either sex, pairs not akin, some fine bred gilts, choice lot of fall pigs all ages. OTTO B. SCHULZE, Nashville, Michigan.

O. I. C. Swine—Bred gilts, males weighing from 150 to 250 lbs. Price and type right. Geo. P. Andrews, Dansville, Ingham Co., Mich.

O. I. C.—March pigs with quality and best pedigree. Order now and get first choice. C. J. THOMPSON, Rockford, Michigan.

O. I. C's. Bred sows all sold. 33 choice Mar. & April farrowed pigs either sex pairs not akin Reg. in buyers name. Fred Nickel, R. No. 1, Monroe, Mich.

O. I. C.—Fall pigs either sex and one June Boar left. I am also booking orders for spring farrow. Shipped on approval. HARRY T. ORANDELL, CASS CITY, MICHIGAN.

O. I. C. SWINE—My herd is chiefly descent of the Royal strain both males and females. Get my price before you buy. Will register free of charge in purchaser's name. A. J. GORDEN, R. No. 2, Dorr, Michigan.

GREAT POLAND-CHINA HOG SALE.

JANUARY 20th.
60 sows bred for spring farrow. If you want the best, attend my sale as I have the best in the state.

WM. WAFFLE, Coldwater, Michigan.

Butler's Famous Wonders—The biggest, best by every test, 20 fall boars ready for service, weighing up to 250 lbs. at \$20 & \$25 each, they have got to go. Also Jersey bull calves richly bred. J. C. BUTLER, Portland, Mich. Bell Phone.

Bargains—P. C. Boars ready for service, fall boar pigs. Prize winning African & Embden Geese. Z. KINNE, Three Oaks, Mich.

Poland-Chinas—Fall & Spring pigs of quality, at low prices. B. M. WING & SON, Sheridan, Michigan.

POLAND-CHINAS—Fall pigs either sex. Young sows, spring farrow. Write L. W. Barnes & Son, Byron, Shawansee Co., Mich.

POLAND-CHINAS—Booking spring pigs. WOOD & SONS, Saline, Michigan.

POLAND-CHINAS—Spring pigs both sexes. A few choice fall boars. R. J. LANE, No. 7, Clare, Mich.

BIG TYPE POLAND CHINA BOARS, also fall and early spring pigs. B. P. Rock eggs \$1.00 per 15. ROBERT NEVE, Pierson, Michigan.

LARGE TYPE P. C. Largest in Mich. Sept. & Oct. pigs weigh 250 to 300 lbs. Sired by two largest boars and from largest sows in State. Come and see and be convinced. W. E. Livingston, Parma, Mich.

FOR SALE PURE BRED YORKSHIRE PIGS. Both sexes. Price reasonable. MURRAY-WATERMAN CO., ANN ARBOR, MICH.

Lillie Farmstead Yorkshires—Hollywood Manor and Oak Lodge blood predominates. Large Herd. Three service boars. Pairs and trios, not akin. Boars ready for service. A fine lot of spring pigs. Gilts bred for August farrow. The best hog on earth. Satisfaction guaranteed. COLON C. LILLIE, Coopersville, Mich.

POULTRY

IN ANSWER TO INQUIRIES.

Handling Young Geese.

C. E. D., Vassar, Mich.:—Ordinary hens are quite commonly used for hatching geese. However, they are not generally regarded a success as brooders, the practice being to take the goslings from the hens immediately after hatching. For the first 24 to 48 hours they are kept in a dry warm place without feeding. The first meal may be of tender young grass alone or a mixture of grass with corn meal and shorts. At this time they may be placed in a small enclosure covering a good grass plot. A movable pen made of 12-inch boards set on edge will do nicely as it can be moved to provide fresh grass each day, but protection from cold and storms should be given until they are several weeks old. During this time the corn meal and shorts will answer for grain food, or cracked wheat or barley may be given. When about two weeks old they should have a larger run where an abundance of good grass is obtainable. At this age they may be given access to a body of water if the weather is good and warm. If it seems desirable to give them unlimited range this may be done when they have reached the age of four or five weeks, after which they will thrive on grass and one meal per day of meal or of whole wheat or barley. It is well to continue feeding, a small ration at least, throughout the season to keep them familiar with their attendant and tame enough so they will come when you call them.

Combating Lice.

D. S., Monroe Co.:—To rid fowls of lice secure a supply of one of the lice destroyers which have been advertised in these columns during recent months. Effective preparations, both in powder and liquid form, are now on the market and at this season there is not the danger or difficulty in using the liquid form that there is in severe weather. Or you can make up a good powder by mixing 3 parts gasoline with 1 part crude carbolic acid and adding as much plaster of paris as the mixture will moisten. This makes a pinkish-brown powder having the odor of carbolic acid. If you choose a liquid preparation, dip the fowls in it according to directions accompanying the preparation. If a powder, handle the fowls by the legs and sift the powder down through the feathers, taking care to work it down to the skin on all parts of the body. A week later repeat the application to catch the lice that may hatch in the meantime.

The material used in preparing nests for sitting hens should be fresh and clean. If the poultry house and the nests used by the layers are infested with lice the sitting hens must be placed in some other building; otherwise you will have great difficulty in preventing the conditions which obtained in the nest you describe. Do not set a hen unless you are reasonably sure she is free from the pests, and even then give her a thorough dusting with insect powder before placing her upon the eggs. Also provide a box of road dust or ashes in which the sitting hens may dust themselves whenever they get off the nests.

Whitewashing the interior of the poultry house will not rid it of lice unless a little carbolic acid is added to the wash. The so-called government whitewash is the most satisfactory preparation, since it does not rub off like ordinary whitewash. To make it, slake a half bushel of lime in warm water, keeping it covered to retain the steam. Strain the liquid through a fine sieve. Add a peck of salt, previously dissolved in warm water; 3 lbs. of rice, ground and boiled to a thin paste; ½ lb. of Spanish whiting; 1 lb. of glue, previously dissolved over a slow fire; 5 gals. of hot water. Stir well, cover to keep out dirt and let it stand for five days. If desired to use as a disinfectant add 2 pts. of carbolic acid. Heat the preparation before using and apply while hot with a good-sized brush, taking care to cover every bit of surface and to fill all cracks and crevices with it. Burn the old nesting material and paint the nest boxes, inside and outside, with the whitewash. If something simpler than the above preparation seems desirable paint or spray the interior of house with a mixture of 1 gal. of kerosene and 1 lb. crude carbolic acid, repeating the application about once a month throughout the summer.

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Makes Poultry Keeping Pay

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But you must live on and cultivate the soil.

Have you ever heard of a proposition like that?

Another proposition, at the same price, requires \$2 an acre down, the balance in ten equal payments, with interest at only 6 per cent.

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Owners of these lands will not sell to speculators. The land must go to actual settlers. They want to see the country built up. They want the crops coming into their towns and the trade of prosperous farmers who are owners of the land they farm.

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The country is in splendid condition this spring. Nearly 3 inches of rain in February. Everything ready for you.

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Don't wait. Make the break.

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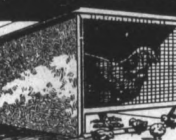
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The Michigan Farmer

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DETROIT, MAY 6, 1911.

CURRENT COMMENT.

In a speech made at a dinner party given last week by the Newspaper Publishers' Association in New York, President Taft spoke at length of the Canadian reciprocity treaty. We regret that space will not permit the reproduction of his speech in full, since it was essentially directed to the farmers of the country, who are so unanimously opposed to the reciprocity program. In opening his address President Taft deplored attempts to amend the bill so as to give a measure of free trade in other than agricultural products and pointed out the dangers which might result in our trade relations with other countries from such a step. In an attempt to justify the terms of the agreement, in so far as they effect the farmers of the country, he continued:

"More than this, these proposed gratuitous concessions are in the nature of an admission that in some way or other we have done an injury to a particular class by this Canadian reciprocity agreement. I deny it. It is said that it injures the farmers. I deny it. It is strictly in accordance with the protective principle that we should only have a protective tariff between us and countries in which the conditions are so dissimilar as to make a difference in the cost of production. Now it is known of all men that the general conditions that prevail in Canada are the same as those which obtain in the United States in the matter of agricultural products. Indeed, if there is any advantage, the advantage is largely on the side of the United States, because we have much greater variety of product in view of the varieties of our climate than they can have in Canada.

"We raise cotton as no other country does; of course, they raise none in Canada.

"We raise corn, and hogs and cattle fed on corn, and with the exception of a very small part of the acreage of Canada, in Ontario, it is not possible to raise corn at all in the dominion.

"With respect to wheat and barley and oats, conditions differ in different parts of Canada, and in different parts of the United States. Classing them together, as on the whole, the conditions are substantially the same. In prices of farm land the differences are no greater between Canada and the United States than between the different states in the United States. In the matter of farm wages, on the whole, they are about the same.

"It is said that this is an agreement that affects agricultural products more than manufacturers. That is true; but if we have an interchange of products between the two countries of any substantial amount, the chief part of it must necessarily be in agricultural products. As it is, we export to Canada more agri-

cultural products than we receive from her and so it will be afterwards. The effect is not going, in my judgment, to lower the specific prices of agricultural products in our country. It is going to steady them, and it is going to produce an interchange of products at a profit which will be beneficial to both countries.

"If objection can be made to the treaty on the ground that a particular interest derives less benefit from it than other classes, then it is the manufacturer who ought to object, because the treaty in its nature will not enlarge his market as much as it will that of the farmer.

"I am quite aware that from one motive or another a great deal of effort and money have been spent in sending circulars to farmers to convince them that this Canadian treaty, if adopted, will do them injury. I do not know that it is possible to allay such fears by arguments, pending the consideration of the treaty by the senate. But there is one way—and that a conclusive way—of demonstrating the fallacy and unfounded character of their fears to the farmers, or any other class that believes itself to be unjustly affected by this treaty, and that is to try it on. There is no obligation on either nation to continue the reciprocity arrangement any longer than it desires, and if it be shown, by actual practice, there is an injury and a permanent injury to the farmers of this country, everybody knows that they can sufficiently control legislation to bring about a change and a return to the old conditions. Those of us who are responsible for the Canadian treaty are willing and anxious to subject it to that kind of a test.

"Another, and a very conclusive reason for closing the contract is the opportunity which it gives us to increase the supply of our natural resources which, with the wastefulness of children, we have wantonly exhausted. The timber resources of Canada, which will open themselves to us inevitably under the operation of this agreement, are now apparently inexhaustible, and we may derive ample supplies of timber from Canadian sources to the profit of Canada and for our own benefit. There are other natural resources which I need not stop to enumerate which will become available to us as if our own if we adopt and maintain commercial union with Canada."

The administration arguments used in this speech are not dissimilar to those advanced upon former occasions, which have been quoted and commented upon in these columns, and we believe that it needs no further comment to convince our readers that they are based on mistaken premises. But there are some new passages in this speech which we cannot permit to pass unnoticed or without drawing the logical deductions. Loth as President Taft is to admit that an injustice has been done to the farmers of the country in the terms of this treaty, he clearly does admit that any increased exchange of products between the two countries resulting from this treaty "must necessarily be in agricultural products." Yet, notwithstanding Canada's relatively large exportable surplus of agricultural products and enormous undeveloped possibilities for agricultural production, the claim is made that prices will not be lowered by this treaty, but rather that it will "steady them and produce an interchange of products at a profit which will be beneficial to both countries." Again, President Taft says that the operation of this treaty will not enlarge the market of the manufacturer as much as it will that of the farmer. What, then, can be the benefit to the manufacturer and the laboring classes from the operation of this treaty, unless it be in a decreased cost of living, secured at the expense of the producers of foodstuffs? Such arguments would appear so difficult of reconciliation as to make comment unnecessary. Certainly it is not calculated to benefit the farmer. Upon this our readers are agreed.

But perhaps the most unfortunate revelation made in this speech is that President Taft appears to think the attitude of the farmers on this question is the result of the expenditure of a great deal of "money and effort" in sending them circulars. If this were true it would indeed be a sad commentary upon the intelligence of the American farmer. So far as the farmers of Michigan are concerned, they are thinking men of high average capacity, who are perfectly capable of reaching intelligent conclusion upon an economic question of so great import to them as this treaty, as is evidenced by the unanimity of opinion which they have expressed on the subject since the first announcement of the terms of the treaty.

But if the President is not impressed by the attitude of the farmers of the country on this question, we believe the senators are still amenable to that sentiment if properly expressed, and fortunately there is still time for its more general and full expression. This is an emergency in which every individual farmer should act in his own behalf, rather than permit another to speak for him, even though that other be the Pres-

ident of the United States. We do not want to try this experiment, that he may have an opportunity to demonstrate the truth or fallacy of his argument that it will not hurt us. It is too much like taking a suspicious drug to determine whether or not it is poisonous. Let us then continue to urge the senators from Michigan to oppose this treaty, lest its trial result in a backward swing of the economic pendulum with disastrous results to which the dangers scented by the President in prospective tariff tinkering are not comparable.

About a year ago mention was made in these columns of a movement started by the Chamber of Commerce at Binghamton, N. Y., looking toward the rehabilitation of the agriculture of the country surrounding that city. In common with the older lands of many of the eastern states, the farms of that section have become depleted of their fertility by unwise methods of agriculture, and their owners have been no longer able to compete with the newer and richer soils of the west and middle west in the production of agricultural staples. The result has been that the younger generation of rural residents have left the farms and gone into other lines of work until the commercial organization of that city has noted the effect upon the city itself, and organized an agricultural bureau for the promotion of better methods in the agriculture of the surrounding country. In this work the co-operation of the United States Department of Agriculture, as well as the New York State College of Agriculture, were enlisted, and demonstration experiments were conducted, while a number of men from the college spent considerable time in extension work among the farmers of this section and the Bureau of Soils of the Department of Agriculture made a careful survey of the soils of that section of the state. The railroads have also proposed to co-operate in the movement by the establishment of model farms along their lines in some cases.

In a recent report of the plans for this work for the ensuing year, it appears that after counselling with experts, Prof. Spillman, of the Department of Agriculture, and others, it was decided that the model farm idea was impracticable; that there were already many model farms in the region to be covered by the work which could be used as object lessons and for demonstration work, and that to be effective work of this kind must be carried right to the door of the farmer who needs it, rather than to expect him to travel considerable distances to attend meetings or demonstrations on centrally located model farms. It developed that the model farm idea had not been an unquestionable success in any place where it had been tried, when viewed from an educational standpoint. The future policy of the agricultural bureau of this urban organization will be to conduct educational work in the schools and granges in the territory covered, with the object in view of arousing the children to an interest in the subject of better farming methods, and the opportunities for successful agriculture in that section. Efforts will be made to organize cow-testing associations and conduct demonstration experiments in liming the soil for the successful growing of clover as one of the first essentials in increasing the crop-producing capacity of the soil. A campaign will also be conducted for the better care of orchards in that section, and the bureau will co-operate with the farmers in securing the necessary farm labor to properly carry on their work.

The recognition of the need for the rehabilitation of agriculture in that section by a purely commercial organization may well attract the attention of other urban dwellers and business men at this time, many of whom are shouting for the adoption of the Canadian reciprocity agreement, notwithstanding the fact that it will unquestionably hasten the day when the agriculture of many of the communities of the central west will have fallen into a state comparable with that of the depleted sections of the east. Through competition with the more fertile soils of the great northwest, the eastern farmer was driven to the necessity of becoming a soil robber to gain a subsistence for his family, through the opening up of the rich and fertile prairie soils of our own west, and many farmers in our border states would be driven to the same necessity through competition of the prairie lands of the Canadian west with like deplorable results as those which the Binghamton Chamber of Commerce is

striving to correct in its immediate locality. This organization is to be congratulated upon its good work and the commercial organizations of other cities more fortunately situated at the present time with regard to the proximity of prosperous agricultural sections would do well to cultivate an attitude which would seek to obviate, rather than overcome like unfortunate conditions after they have been brought about.

Among the bills passed during the last days of the legislative session was the stallion license bill, which was mentioned in these columns at the time of its introduction, and which provides for the licensing of stallions and the furnishing of accurate information to the public regarding their breeding. This is certainly a move in the right direction, and as soon as an official copy of the act can be obtained, we will publish its text in the live stock department, in order that every interested reader may become familiar with its terms.

As illustrative of the need of an awakened interest in the breeding of better horses in Michigan, some data collected by the Percheron Society of America, covering ten middle western states, will be of interest. In summarizing the information contained in the statistical tables compiled the secretary of this society says:

"The percentage of grade sires, still in service, is appalling. Every man of intelligence knows that grade sires are less prepotent than pure breds, and that their get is less valuable for work or market than the get of pure bred sires. The continued use of such grade sires is therefore striking evidence of the shortsighted policy pursued by thousands of farmers, and indicates the need of persistent educational work.

"The number of pure bred sires is not adequate, in proportion to the total number of horses. Not a single state of the ten named has one pure bred draft sire per 300 horses. The proportion certainly should not be less than 1 to 200 horses, whereas, it is now but 1 per 579 horses, for the total of ten states named. Inasmuch as it is admitted that at least one-fifth of the pure bred sires in service are not of such excellence as to warrant long continued use in the stud, it is evident that the proportion which good pure bred sires bear to the total number of horses, is about 1 to 724. In other words, we now have but one good pure bred draft sire where we should have four, or nearly that number."

The legislation above mentioned will have the beneficial effect of placing the farmer who breeds his mares in possession of accurate information regarding the breeding of the sires which he uses, and should make this class of breeders more discriminating in the selection of sires.

HAPPENINGS OF THE WEEK.

National.

Nine persons were killed in a fire at Roanoke, Va., last Friday. The unfortunate victims consisted of a mother and eight children.

A disastrous explosion occurred in a coal mine at Elk Garden, West Virginia, killing 23 persons. The cause of the accident is unknown.

It is expected that within a fortnight the peace pact between Great Britain and the United States providing for the arbitration of any differences for the coming five years, will be signed.

The congressional districts of Michigan will be redistributed to allow for the extra congressmen due her from the apportionment according to the last census. It is probable that every congressional district in the state will be disturbed. Unless the state legislature meets in extra session for making the new redistribution, the new congressmen will be elected at large in 1912.

Representative Cullop, a democratic congressman from Indiana, declared for the election of postmasters, United States marshals and other federal employees, in a speech before the house.

Capt. John H. Gibbons, a native of Michigan, has been selected as superintendent of the Annapolis naval academy to succeed Capt. Bowyer, who resigns on account of ill health.

Port Huron is bidding for the national military encampment, and to that end enterprising local business men are collecting data to submit to the naval department setting forth the advantages Port Huron has to offer.

Because of the supreme court decision touching upon the holding of coal properties by railroads as prohibited by the Hepburn act, several eastern railroads have decided to dispose of coal properties to independent companies or new companies organized for the purpose of taking over the lands.

On Sunday 100 business places and 285 residences were destroyed by fire in Bangor, Me. The loss is estimated at \$5,000. (Continued on page 525).

Magazine Section

LITERATURE
POETRY
HISTORY and
INFORMATION

MICHIGAN FARMER
AND **LIVE STOCK**
JOURNAL
PUBLISHED WEEKLY.
ESTABLISHED 1843.

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

NEW ZEALAND—"God's Own Country."—1.

BY P. A. YODER.

BEING in Australia, and having heard so much of these beautiful green islands of the Southern Seas, so lovely that the inhabitants affectionately refer to them as "God's Own Country," having heard of the excellence of their wool, lambs, and dairy products, of the noted scenic attractions, and of the bold semi-socialistic tendencies in legislation, the writer finally decided that he could not afford to miss so good an opportunity to visit New Zealand.

This side trip was somewhat hastened by the almost unendurable heat which we experienced at Melbourne where the thermometer registered 112.5 degs. in the shade, the black paved streets and sidewalks were like hot lava beds, and the winds were as from a glowing furnace. They were record-breaking days for heat when, on Jan. 17, we left that city and the next evening sailed from Sydney, our destination being the city of Wellington, one of the southernmost ports of North Island.

Wellington, beautifully situated on the slope and lap of a high hill facing the harbor, reminds one of Duluth or Hong-kong. When we land, hearing English spoken on every hand, it seems more like coming to a city at home. Only the double-decked street cars, and some slight twang in the dialect, suggest that it might be in England or Scotland. The only other feature that causes one to realize that he is indeed in a foreign land is the odd-shaped helmets, worn by the sleek-looking policemen, which keep one guessing whether the helmet is on back-side forward or not.

As was our wont in the Australian states, we headed straight for the offices of the Department of Agriculture, to ask for suggestions as to the best places to visit. The hearty reception and the liberal courtesies extended by these government officials were such as only the warm-hearted pioneers of a new and rapidly growing country know how to extend. We were impressed, first, last and all the while, with the fact that this is a country whose people are not ashamed to show a stranger coming to its shores all of its beauties and resources.

The Agricultural Industries.

Aside from sheep raising and dairying, for which we consider New Zealand noted, we find large areas of choice agricultural land utilized for intensive farming of a variety of crops. Rarely has it been our pleasure to see such prosperous looking and well farmed districts as the Canterbury Plains on South Island. Though the season was cut somewhat short by an unusual drouth, the wheat crop, which was just being threshed, was very fine. Rape and root crops, which covered a considerable part of the area, were affected more by the drouth. Further south, in the Otago province, the land is more rolling but is also producing heavy crops. Oats here take the place of wheat as the principal crop, but root crops, principally swedes and mangolds, are also extensively produced. The oats and wheat were just being harvested (last of January).

Throughout these provinces, as also in the parts of North Island visited, there are large sections in which dairying has been started and now forms the chief industry. Elsewhere the stock usually kept on these farms consists of sheep, and in the mountains and Westland, practically the whole of the area is used for sheep, smaller portions only being used for beef production.

In climate, New Zealand is remarkably equable—relatively cool in summer and mild in winter. It extends from 34 degs. 25 min. south to 47 degs. 17 min. south latitude, thus corresponding to a stretch of North America from North Carolina to Newfoundland. In the extreme north

they have almost a tropical vegetation, and are able to raise the harder tropical fruits. At Wellington they rarely have any snow, yet in midsummer (January), while we were there, they had a night cold New Zealand is remarkably different

forward to some future time when she shall wield a power and influence in the southern hemisphere like Great Britain has wielded in the northern.

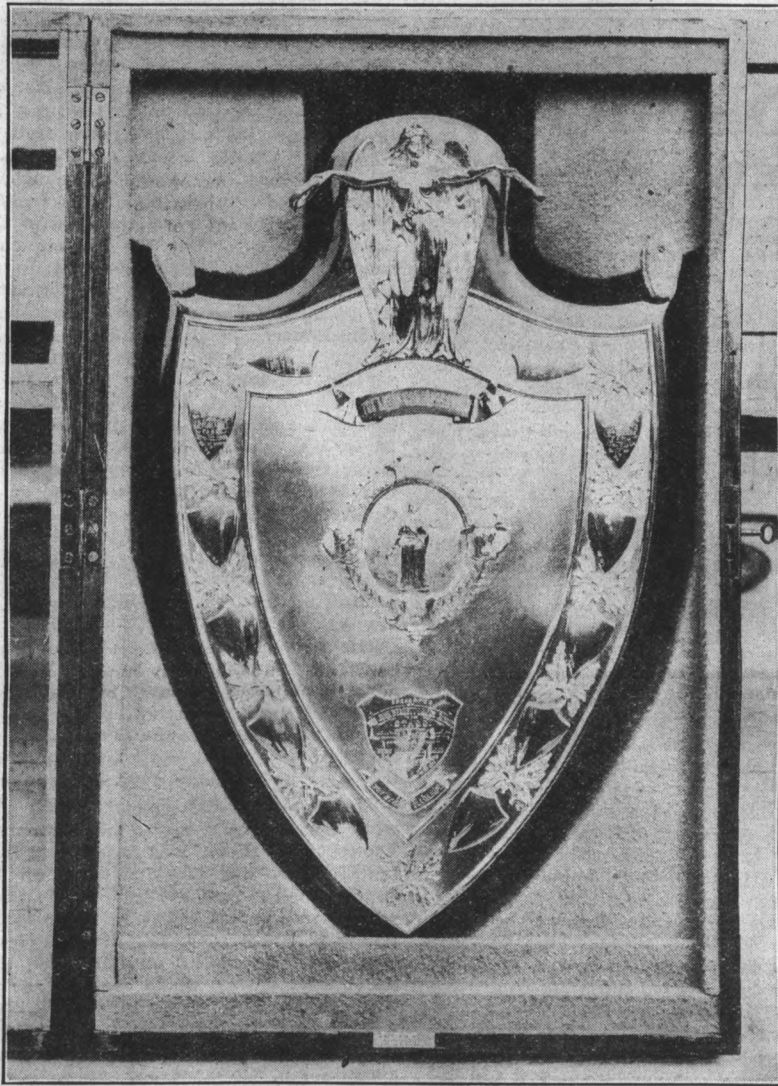
New Zealand Hemp.

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The Michigan Farmer

ESTABLISHED 1843.

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 The Lawrence Pub. Co.,
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DETROIT, MAY 6, 1911.

CURRENT COMMENT.

Some Reciprocity Admissions.
 In a speech made at a dinner party given last week by the Newspaper Publishers' Association in New York, President Taft spoke at length of the Canadian reciprocity treaty. We regret that space will not permit the reproduction of his speech in full, since it was essentially directed to the farmers of the country, who are so unanimously opposed to the reciprocity program. In opening his address President Taft deplored attempts to amend the bill so as to give a measure of free trade in other than agricultural products and pointed out the dangers which might result in our trade relations with other countries from such a step. In an attempt to justify the terms of the agreement, in so far as they effect the farmers of the country, he continued:

"More than this, these proposed gratuitous concessions are in the nature of an admission that in some way or other we have done an injury to a particular class by this Canadian reciprocity agreement. I deny it. It is said that it injures the farmers. I deny it. It is strictly in accordance with the protective principle that we should only have a protective tariff between us and countries in which the conditions are so dissimilar as to make a difference in the cost of production. Now it is known of all men that the general conditions that prevail in Canada are the same as those which obtain in the United States in the matter of agricultural products. Indeed, if there is any advantage, the advantage is largely on the side of the United States, because we have much greater variety of product in view of the varieties of our climate than they can have in Canada.

"We raise cotton as no other country does; of course, they raise none in Canada.

"We raise corn, and hogs and cattle fed on corn, and with the exception of a very small part of the acreage of Canada, in Ontario, it is not possible to raise corn at all in the dominion.

"With respect to wheat and barley and oats, conditions differ in different parts of Canada, and in different parts of the United States. Classing them together, as on the whole, the conditions are substantially the same. In prices of farm land the differences are no greater between Canada and the United States than between the different states in the United States. In the matter of farm wages, on the whole, they are about the same.

"It is said that this is an agreement that affects agricultural products more than manufacturers. That is true; but if we have an interchange of products between the two countries of any substantial amount, the chief part of it must necessarily be in agricultural products. As it is, we export to Canada more agricultural products than we receive from her and so it will be afterwards. The effect is not going, in my judgment, to lower the specific prices of agricultural products in our country. It is going to steady them, and it is going to produce an interchange of products at a profit which will be beneficial to both countries.

"If objection can be made to the treaty on the ground that a particular interest derives less benefit from it than other classes, then it is the manufacturer who ought to object, because the treaty in its nature will not enlarge his market as much as it will that of the farmer.

"I am quite aware that from one motive or another a great deal of effort and money have been spent in sending circulars to farmers to convince them that this Canadian treaty, if adopted, will do them injury. I do not know that it is possible to allay such fears by arguments, pending the consideration of the treaty by the senate. But there is one way—and that a conclusive way—of demonstrating the fallacy and unfounded character of their fears to the farmers, or any other class that believes itself to be unjustly affected by this treaty, and that is to try it on. There is no obligation on either nation to continue the reciprocity arrangement any longer than it desires, and if it be shown, by actual practice, there is an injury and a permanent injury to the farmers of this country, everybody knows that they can sufficiently control legislation to bring about a change and a return to the old conditions. Those of us who are responsible for the Canadian treaty are willing and anxious to subject it to that kind of a test.

"Another, and a very conclusive reason for closing the contract is the opportunity which it gives us to increase the supply of our natural resources which, with the wastefulness of children, we have wantonly exhausted. The timber resources of Canada, which will open themselves to us inevitably under the operation of this agreement, are now apparently inexhaustible, and we may derive ample supplies of timber from Canadian sources to the profit of Canada and for our own benefit. There are other natural resources which I need not stop to enumerate which will become available to us as if our own if we adopt and maintain commercial union with Canada."

The administration arguments used in this speech are not dissimilar to those advanced upon former occasions, which have been quoted and commented upon in these columns, and we believe that it needs no further comment to convince our readers that they are based on mistaken premises. But there are some new passages in this speech which we cannot permit to pass unnoticed or without drawing the logical deductions. Loth as President Taft is to admit that an injustice has been done to the farmers of the country in the terms of this treaty, he clearly does admit that any increased exchange of products between the two countries resulting from this treaty "must necessarily be in agricultural products." Yet, notwithstanding Canada's relatively large exportable surplus of agricultural products and enormous undeveloped possibilities for agricultural production, the claim is made that prices will not be lowered by this treaty, but rather that it will "steady them and produce an interchange of products at a profit which will be beneficial to both countries." Again, President Taft says that the operation of this treaty will not enlarge the market of the manufacturer as much as it will that of the farmer. What, then, can be the benefit to the manufacturer and the laboring classes from the operation of this treaty, unless it be in a decreased cost of living, secured at the expense of the producers of foodstuffs? Such arguments would appear so difficult of reconciliation as to make comment unnecessary. Certainly it is not calculated to benefit the farmer. Upon this our readers are agreed.

But perhaps the most unfortunate revelation made in this speech is that President Taft appears to think the attitude of the farmers on this question is the result of the expenditure of a great deal of "money and effort" in sending them circulars. If this were true it would indeed be a sad commentary upon the intelligence of the American farmer. So far as the farmers of Michigan are concerned, they are thinking men of high average capacity, who are perfectly capable of reaching intelligent conclusion upon an economic question of so great import to them as this treaty, as is evidenced by the unanimity of opinion which they have expressed on the subject since the first announcement of the terms of the treaty.

But if the President is not impressed by the attitude of the farmers of the country on this question, we believe the senators are still amenable to that sentiment if properly expressed, and fortunately there is still time for its more general and full expression. This is an emergency in which every individual farmer should act in his own behalf, rather than permit another to speak for him, even though that other be the President of the United States. We do not want to try this experiment, that he may have an opportunity to demonstrate the truth or fallacy of his argument that it will not hurt us. It is too much like taking a suspicious drug to determine whether or not it is poisonous. Let us then continue to urge the senators from Michigan to oppose this treaty, lest its trial result in a backward swing of the economic pendulum with disastrous results to which the dangers scented by the President in prospective tariff tinkering are not comparable.

About a year ago mention was made in these columns of a movement started by the Chamber of Commerce at Binghamton, N. Y., looking toward the rehabilitation of the agriculture of the country surrounding that city. In common with the older lands of many of the eastern states, the farms of that section have become depleted of their fertility by unwise methods of agriculture, and their owners have been no longer able to compete with the newer and richer soils of the west and middle west in the production of agricultural staples. The result has been that the younger generation of rural residents have left the farms and gone into other lines of work until the commercial organization of that city has noted the effect upon the city itself, and organized an agricultural bureau for the promotion of better methods in the agriculture of the surrounding country. In this work the co-operation of the United States Department of Agriculture, as well as the New York State College of Agriculture, were enlisted, and demonstration experiments were conducted, while a number of men from the college spent considerable time in extension work among the farmers of this section and the Bureau of Soils of the Department of Agriculture made a careful survey of the soils of that section of the state. The railroads have also proposed to co-operate in the movement by the establishment of model farms along their lines in some cases.

In a recent report of the plans for this work for the ensuing year, it appears that after counselling with experts, Prof. Spillman, of the Department of Agriculture, and others, it was decided that the model farm idea was impracticable; that there were already many model farms in the region to be covered by the work which could be used as object lessons and for demonstration work, and that to be effective work of this kind must be carried right to the door of the farmer who needs it, rather than to expect him to travel considerable distances to attend meetings or demonstrations on centrally located model farms. It developed that the model farm idea had not been an unquestionable success in any place where it had been tried, when viewed from an educational standpoint. The future policy of the agricultural bureau of this urban organization will be to conduct educational work in the schools and granges in the territory covered, with the object in view of arousing the children to an interest in the subject of better farming methods, and the opportunities for successful agriculture in that section. Efforts will be made to organize cow-testing associations and conduct demonstration experiments in liming the soil for the successful growing of clover as one of the first essentials in increasing the crop-producing capacity of the soil. A campaign will also be conducted for the better care of orchards in that section, and the bureau will co-operate with the farmers in securing the necessary farm labor to properly carry on their work.

The recognition of the need for the rehabilitation of agriculture in that section by a purely commercial organization may well attract the attention of other urban dwellers and business men at this time, many of whom are shouting for the adoption of the Canadian reciprocity agreement, notwithstanding the fact that it will unquestionably hasten the day when the agriculture of many of the communities of the central west will have fallen into a state comparable with that of the depleted sections of the east. Through competition with the more fertile soils of the great northwest, the eastern farmer was driven to the necessity of becoming a soil robber to gain a subsistence for his family, through the opening up of the rich and fertile prairie soils of our own west, and many farmers in our border states would be driven to the same necessity through competition of the prairie lands of the Canadian west with like deplorable results as those which the Binghamton Chamber of Commerce is

striving to correct in its immediate locality. This organization is to be congratulated upon its good work and the commercial organizations of other cities more fortunately situated at the present time with regard to the proximity of prosperous agricultural sections would do well to cultivate an attitude which would seek to obviate, rather than overcome like unfortunate conditions after they have been brought about.

Better Horses for Michigan.
 Among the bills passed during the last days of the legislative session was the stallion license bill, which was mentioned in these columns at the time of its introduction, and which provides for the licensing of stallions and the furnishing of accurate information to the public regarding their breeding. This is certainly a move in the right direction, and as soon as an official copy of the act can be obtained, we will publish its text in the live stock department, in order that every interested reader may become familiar with its terms.

As illustrative of the need of an awakened interest in the breeding of better horses in Michigan, some data collected by the Percheron Society of America, covering ten middle western states, will be of interest. In summarizing the information contained in the statistical tables compiled the secretary of this society says:

"The percentage of grade sires, still in service, is appalling. Every man of intelligence knows that grade sires are less prepotent than pure bred, and that their get is less valuable for work or market than the get of pure bred sires. The continued use of such grade sires is therefore striking evidence of the short-sighted policy pursued by thousands of farmers, and indicates the need of persistent educational work.

"The number of pure bred sires is not adequate, in proportion to the total number of horses. Not a single state of the ten named has one pure bred draft sire per 300 horses. The proportion certainly should not be less than 1 to 200 horses, whereas, it is now but 1 per 579 horses, for the total of ten states named. Inasmuch as it is admitted that at least one-fifth of the pure bred sires in service are not of such excellence as to warrant long continued use in the stud, it is evident that the proportion which good pure bred sires bear to the total number of horses, is about 1 to 724. In other words, we now have but one good pure bred draft sire where we should have four, or nearly that number."

The legislation above mentioned will have the beneficial effect of placing the farmer who breeds his mares in possession of accurate information regarding the breeding of the sires which he uses, and should make this class of breeders more discriminating in the selection of sires.

HAPPENINGS OF THE WEEK.

National.

Nine persons were killed in a fire at Roanoke, Va., last Friday. The unfortunate victims consisted of a mother and eight children.

A disastrous explosion occurred in a coal mine at Elk Garden, West Virginia, killing 23 persons. The cause of the accident is unknown.

It is expected that within a fortnight the peace pact between Great Britain and the United States providing for the arbitration of any differences for the coming five years, will be signed.

The congressional districts of Michigan will be redistricted to allow for the extra congressmen due her from the apportionment according to the last census. It is probable that every congressional district in the state will be disturbed. Unless the state legislature meets in extra session for making the new redistricting, the new congressmen will be elected at large in 1912.

Representative Cullop, a democratic congressman from Indiana, declared for the election of postmasters, United States marshals and other federal employees, in a speech before the house.

Capt. John H. Gibbons, a native of Michigan, has been selected as superintendent of the Annapolis naval academy to succeed Capt. Bowyer, who resigns on account of ill health.

Port Huron is bidding for the national military encampment, and to that end enterprising local business men are collecting data to submit to the naval department setting forth the advantages Port Huron has to offer.

Because of the supreme court decision touching upon the holding of coal properties by railroads as prohibited by the Hepburn act, several eastern railroads have decided to dispose of coal properties to independent companies or new companies organized for the purpose of taking over the lands.

On Sunday 100 business places and 285 residences were destroyed by fire in Bangor, Me. The loss is estimated at \$5,000.
 (Continued on page 525).

Magazine Section

LITERATURE
POETRY
HISTORY and
INFORMATION

MICHIGAN FARMER
AND **LIVE STOCK**
PUBLISHED WEEKLY
JOURNAL
ESTABLISHED 1843.

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

NEW ZEALAND—"God's Own Country."—1.

BY P. A. YODER.

BEING in Australia, and having heard so much of these beautiful green islands of the Southern Seas, so lovely that the inhabitants affectionately refer to them as "God's Own Country," having heard of the excellence of their wool, lambs, and dairy products, of the noted scenic attractions, and of the bold semi-socialistic tendencies in legislation, the writer finally decided that he could not afford to miss so good an opportunity to visit New Zealand.

This side trip was somewhat hastened by the almost unendurable heat which we experienced at Melbourne where the thermometer registered 112.5 degs. in the shade, the black paved streets and sidewalks were like hot lava beds, and the winds were as from a glowing furnace. They were record-breaking days for heat when, on Jan. 17, we left that city and the next evening sailed from Sidney, our destination being the city of Wellington, one of the southernmost ports of North Island.

Wellington, beautifully situated on the slope and lap of a high hill facing the harbor, reminds one of Duluth or Hongkong. When we land, hearing English spoken on every hand, it seems more like coming to a city at home. Only the double-decked street cars, and some slight twang in the dialect, suggest that it might be in England or Scotland. The only other feature that causes one to realize that he is indeed in a foreign land is the odd-shaped helmets, worn by the sleek-looking policemen, which keep one guessing whether the helmet is on back-side forward or not.

As was our wont in the Australian states, we headed straight for the offices of the Department of Agriculture, to ask for suggestions as to the best places to visit. The hearty reception and the liberal courtesies extended by these government officials were such as only the warm-hearted pioneers of a new and rapidly growing country know how to extend. We were impressed, first, last and all the while, with the fact that this is a country whose people are not ashamed to show a stranger coming to its shores all of its beauties and resources.

The Agricultural Industries.

Aside from sheep raising and dairying, for which we consider New Zealand noted, we find large areas of choice agricultural land utilized for intensive farming of a variety of crops. Rarely has it been our pleasure to see such prosperous looking and well farmed districts as the Canterbury Plains on South Island. Though the season was cut somewhat short by an unusual drouth, the wheat crop, which was just being threshed, was very fine. Rape and root crops, which covered a considerable part of the area, were affected more by the drouth. Further south, in the Otago province, the land is more rolling but is also producing heavy crops. Oats here take the place of wheat as the principal crop, but root crops, principally swedes and mangolds, are also extensively produced. The oats and wheat were just being harvested (last of January).

Throughout these provinces, as also in the parts of North Island visited, there are large sections in which dairying has been started and now forms the chief industry. Elsewhere the stock usually kept on these farms consists of sheep, and in the mountains and Westland, practically the whole of the area is used for sheep, smaller portions only being used for beef production.

In climate, New Zealand is remarkably equable—relatively cool in summer and mild in winter. It extends from 34 degs. 25 min. south to 47 degs. 17 min. south latitude, thus corresponding to a stretch of North America from North Carolina to Newfoundland. In the extreme north

they have almost a tropical vegetation, and are able to raise the hardier tropical fruits. At Wellington they rarely have any snow, yet in midsummer (January), while we were there, they had a night cold New Zealand is remarkably different

they have a fairly severe winter. The rainfall is usually abundant, and drouths, though they occur occasionally, are usually not long continued. In this respect New Zealand is remarkably different

forward to some future time when she shall wield a power and influence in the southern hemisphere like Great Britain has wielded in the northern.

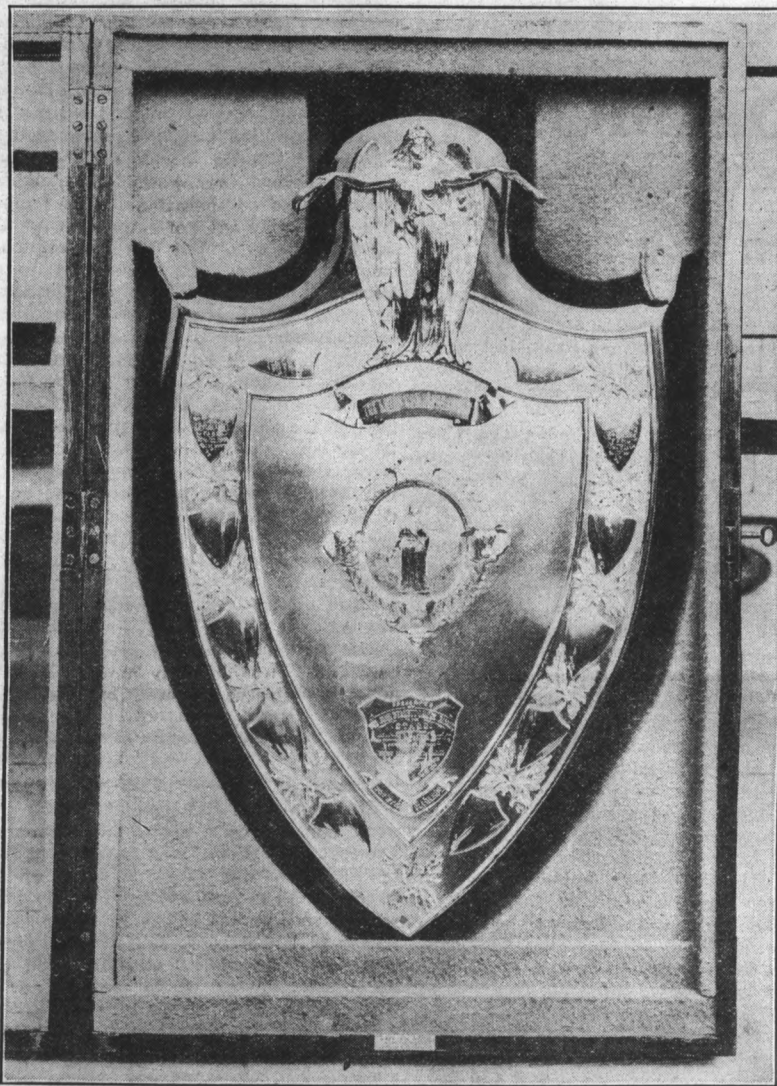
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enough to touch the maize with frost on from Australia, especially the interior of the low-lying experiment fields on the Australia. Because of her equable climate and abundance of rainfall, New Zealand is often compared with Great Britain, and her citizens hopefully look



Mr. Gilroy, with Members of Family and Residence, Owner of "the Best Managed Farm" in New Zealand. Possessor of Silver Shield.

holding, which is practically a reclaimed swamp, lying so low that high tide at the ocean some miles distant backs up the water perceptibly in the adjacent streams and necessitates pumping in wet weather to efficiently drain it. Tile-drains are laid at intervals of one chain and upwards, and from these the drainage is conducted to an excavation on the lowest part of the farm, where it is pumped up by a centrifugal pump run by an oil motor, to a banked-up open ditch which carries it off into the river. His system of farming centers around the fattening of steers and sheep, and those are almost the only products sold from the farm. The food is mixed grass pasture during the growing season, and straw and swedes during the short winter. The rotation for the fields consists simply of raising a crop of swedes, or, if necessary to clear the land of weeds, two crops; then, after smoothing off the land, it is sowed into grasses without any cover crop. It is left in pasture for five or six years, when it is again plowed up for swedes. For the swedes he fertilizes the land with 200 lbs. of molden guano and 100 lbs. of bone dust. This dressing continues its effects on the grass crops after the swedes. The mixture of grass seeds

which Mr. Gilroy favors is $\frac{1}{4}$ bu. Italian rye grass, $\frac{1}{4}$ bu. of English rye grass, 3 lbs. of timothy, 3 lbs. of white clover, and 3 lbs. of "cow grass" (perennial red clover). Formerly he dug his turnips and fed them in the stables, but in recent years he feeds them from the fields without digging. About three acres are fenced off at a time and the steers are turned in, 100 head of them feeding off the three acres for about six weeks, with as much straw supplied each day as they will eat. This method of feeding is not by choice, but by necessity, because labor conditions are so now that he can not get his laborers out as early in the morning as necessary for stable feeding. An ordinary yield of turnips is 60 tons per acre. We have thus described in some detail Mr. Gilroy's system of farming, his rotation of crops, his fertilizer applications, and his grass seed mixtures for pasture land, because it is fairly representative of very many farms on which grain production is not a prominent feature. We would especially call to the attention of farmers' institute organizations, or other agricultural associations, the suggestion of awarding honorary prizes for best managed farms, in place of so many for fine stock or big pumpkins.

what were they going to do? There was no redress for them. The king was sharp. He had connived to have every officer elected a Mormon. If one wished to go to the law for aid there was a Mormon officer to serve their warrants, a Mormon jury, a Mormon judge, and the men that had been selected for the offices were those that Strang knew would do his bidding. From that time, feeling their insecurity, the Gentiles began to leave the island. Added to this all was not as peaceful as it had been in the king's own domain. The revelation of polygamy had angered many and aroused uneasiness in many more. The people did not seem in any hurry to follow the king's lead in this, and the women were holding meetings of their own and protesting against the inhuman practice he had introduced.

Seeing that they did not intend following his lead without compulsion, the king began to command one and another of his elders to take the second wife. A few obeyed, others put him off, not daring to disobey openly but hoping for something to transpire that would stop this from being carried farther.

It was with horror she could not disguise that Elinor learned that Elizabeth had been given, under command of the king, to one of his elders as a second wife. She met her some weeks after and the look of settled misery wrung her heart as nothing else had done, even the trouble of the Bennets.

"Oh, mother," she sobbed that night as she sat with her head against her mother's knee. "Why must we stay in this horrible place?" But her mother could only shake her head sadly. "I do not know, I have tried to get your father to go away but it only seems to anger him when I speak of it. He is changed so sadly. It was a sorry day for us when we left our home in New York. Had I only known what awaited us I should never have come. I often think of Rosetta in her sheltered home, and while I never thought I should live to be thankful that I was separated from one of my children, I am glad and more than glad that she at least is safe from the power of that man who is ruining, I fear, all of our lives."

"Not all, mother; Myra seems perfectly happy."

The mother gave her a look that Elinor could not fathom as she answered: "God grant that she may never have cause to be other than she is now, but a shadow is stalking abroad in the island that will darken many lives, and at any moment its blighting influence may fall on her."

Elinor did not understand at the time what her mother's words meant but she thought of them long afterward and knew. Now her thoughts were on the sister in the far-off home, and wild plans were forming themselves in her mind of trying to get word to her of their condition here. She knew only too well that her brother-in-law would come to her aid if he knew how she was situated, but what would the consequence be to him? She remembered Thomas Bennet and sighed. No, she could not subject him to the displeasure of the king and perhaps leave her sister a widow, for she had begun to think Strang capable of anything. No, far better that she should suffer than that she bring sorrow on any more of her family. If she could get away and go to her it would be different, but she could not do that, so she must wait and let time tell what was to be her destiny.

Meanwhile things were getting lively and the women made up their minds to take a part in the drama, for Strang had ordered others to take plural wives. None of the women felt secure in their homes, not knowing at what moment their husbands might be ordered to take another wife and thus destroy forever their happiness and their peace.

Chapter XI.

It was the wife of one of the elders that called an indignation meeting of the women. She was a bright, vivacious little woman with snapping black eyes and she declared with some vim that if Strang sent another woman into her home she would make it interesting for her.

"He told us the practice was not to be allowed here," she continued, "and you have all heard the way he preached against it, not long ago, either."

"But that was before his revelation," ventured one timid little woman.

"Revelation, fiddlesticks! I notice he has revelations mostly to coincide with his own views or wishes. Didn't he have

(Continued on page 520).

ONCE A MORMON.

By IRMA B. MATTHEWS.

Synopsis of Preceding Chapters.—Promoters of a new colony, claiming to be ministers, enter a prosperous New York state community and persuade a number of farmers to sell their homes and join them. Among the colonists thus secured are Amos Brandon, his wife, his young daughter, Elinor, his married daughter, Myra, and her husband, James Baldwin. Another married daughter, Rosetta, and her husband refuse to join. The site selected is on one of the Beaver islands, in Lake Michigan, and the colonists are transported there by boat. Just before reaching their destination the chief promoter reveals himself to be one James Strang, leader and ruler of the Mormon kingdom which he had established on the island. Under the title of king he claimed to rule in accordance with revelations received direct from the Supreme Being. Strang absented himself from the island the first winter, during which the colonists suffered severely, and on his return sought to relieve them and at the same time makes war on the Gentiles by making public a so-called revelation that it was lawful for his people to seize the property of the Gentiles. He also prescribed a certain mode of dress for the women, at which Elinor rebelled, although her father, who seemed completely under the control of Strang, tried hard to enforce obedience. During the first summer Strang decided to have himself crowned king, and Elinor, in the company of her young admirer, Robert Stuart, attended the coronation. The rule of Strang now became oppressive; the seizure of property by the Mormons was still sanctioned and many Gentiles fled from the island. His law regarding women's dress was disregarded by Elinor, although the king seized and burned her wardrobe in his futile effort to compel her to adopt the prescribed dress. A little later Strang proclaimed a revelation sanctioning plural marriages, at which his own wife deserted him and fled from the island. Some of the colonists indignantly counseled rebellion, but the majority, among them Amos Brandon and his son-in-law, continued blindly to trust and follow Strang.

Chapter X.

For some time the king paid no attention to Elinor and she began to hope that he had forgotten about her entirely. She went where she chose with more security, indeed at times she almost forgot that she was under his displeasure, for she did not allow her mind to dwell on the fact. There was one young woman among the Gentiles that had become quite a friend of hers since Elizabeth could no longer be with her. It was the young wife of Sam Bennet, and many were the pleasant days they spent together.

Mrs. Bennet had come from Detroit to reside on the island because it was her husband's home, but she was often lonely for the many gaieties and comforts she had left behind. She was pleased with the bright ways of Elinor and there sprang up between them a friendship that lasted for life.

Had Mr. Brandon been aware of the growing intimacy I dare say he would have tried at least to put a stop to it, but he was so interested in other affairs that he gave no particular attention to his daughter or her comings and goings.

Mrs. Bennet felt sorry for Elinor, and often said to her husband that she feared for the future of the girl, for Elinor had told her how she had earned the displeasure of Strang.

"We have earned that also," he answered gloomily one night when the sub-

ject was being discussed as usual, for Elinor had been there that day, "and I hardly know yet what the outcome will be. He is determined to drive every Gentile from the island and will stop at nothing short of murder to do it."

His wife tried to cheer him, but how the words came back to her not many weeks later.

It was Elinor who brought the news home. She had started to go to visit her friend and had been met by the terrible news and turned back, eager to see what her father would have to say now in defence of the king. She burst into the room where he and her mother, together with James and Myra, were sitting. James had also heard the news and had come to tell his wife's family what had transpired.

"Well," cried Myra, "whatever ails you, Elinor? You look as though you had seen a ghost!"

Elinor shuddered. "You have heard of the terrible murder that has been committed probably. I hope now you see what kind of a man you have for what you are pleased to call your king."

"Be careful, Elinor," answered her father, sternly. "You know nothing of what you are talking."

"I know Thomas Bennet has been murdered and his brother shot."

"You know nothing of the kind. No murder has been committed."

"Are you sure, father?"

"Sure! Of course I am sure. The Bennet boys have been very lawless, refusing to obey the command to pay the trifling tax of ten dollars that has been asked of each of the fishermen, and yesterday an officer was sent to collect the tax. They again refused to pay and when the officer ordered them under arrest they refused to accompany him, and he fired at them."

"And killed one of them?"

"I believe Thomas is dead," indifferently.

"And you do not call that murder?" asked Elinor hotly.

"Certainly not. The officer was merely doing his duty."

Elinor looked long at her father before she said, as quietly as she could, "I suppose it was a Mormon officer, doing the bidding of the king. I should like to know what right the king has to exact tax of those who do not believe in his power?"

"I dare say there are many things you would like to know that you will never understand. Women have no business trying to understand the laws. It is enough for them to be governed by them."

"I think it has taught many of them a good lesson," said James. "I dare say there will be less opposition to the king's commands now that people see he intends to have them enforced."

It was plainly to be seen, however, that the women sided with the Bennets, for they could not bring themselves to think that killing was justifiable and the argument became quite a heated one.

The whole island was wrought up to a great pitch. The Gentiles saw plainly that it was to be war to the death, but

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MR. HOP-TOAD.

BY B. F. M. SOURS.

O, little hop-toad, in your dress of brown,
Come, tell of your life to me.
You know not the rules of arithmetic
Nor study geography,
But down by the pond, or among the
reeds,
You stray in the twilight gloom,
Devouring the flies and snails and worms,
And helping the flowers to bloom.

O, little hop-toad, in your spotted frock,
No teeth in your mouth you find.
You do no hurt to the things we love,
And our feelings to you are kind.
You sing your song in the early spring,
You sleep through the wintry gales,
And do not wake from the land of dreams
Till the gladness of spring prevails.

You do not care for the county fair,
Nor do you smile or frown
When the price of butter soars the skies,
Or the price of eggs comes down.
The flies! the flies! the beautiful flies!
Your darting tongue has sped!
A little toad is happier now,
And a little fly is dead.

We do not envy your step or gown—
We do not swallow ours—
We hardly think you appreciate
Your ramble amongst the flowers;
But do you know, you little hop-toad,
Of a lesson you have brought?
And happier is the human heart
Whose ear has the message caught.

You do not murmur, nor worry, nor fret,
But a happy content prevails.
The Hand that fashioned your pretty coat
Will furnish you needed snails.
So merrily, all your long, long life,
Go hopping along the road,
For we know 'tis spring when the blue-
birds sing
And we see the little hop-toad.

THE BIRD BOXES AT SUNNY BRAE.

BY EVA MILLS ANDERSON.

There were two attractive lads at the home of the Ames family at Sunny Brae, Ronald and Sydney. Last spring Ronald thought he would like some new bird houses about the orchard. He constructed some by using small boxes, such as chalk boxes, which he got ready made. For a roof he procured two narrow and rather thin boards, sawed them the length of the box, nailed them together at the edges and then nailed them to the box, fitting a triangular board in each eave. He then cut a small hole about the size of a quarter in one end of the box, nailed a short piece of moulding below it for a perch and he had a very nice looking bird house. He fastened the box to a slat which he nailed to a fence post. Then he had to go to town to do some errands. That night, at supper, Sydney said to him: "Your house has some tenants already, Ronald."

"English sparrows, I'll bet," answered Ronald between mouthfuls of rhubarb pie. "No sir, bluebirds."

"That's luck. I hope they'll like the quarters well enough to stay. I guess I'll make some more houses."

"I made one after you went to town and I made it different from yours. It's a lot easier way," Sydney added. Sydney loves to do things quickly and loves to plague Ronald about being "slow."

"How did you do it?"

"Instead of nailing boards for a roof I turned the box cornerwise. You see the two sides of themselves make the roof.

wired the thing to a limb of the big walnut tree. I tell you it's dandy. I saw a picture of one once in a magazine."

"It sounds all right. In the morning we'll see how it really is," admitted Ronald, dubiously. Previous experience had made him doubtful regarding Sydney's hasty constructions.

The following morning both boys appeared in the yard simultaneously and both directed their glances toward the bird house in the walnut tree.

"The first thing I see out of the way," said Ronald, "is that you left the step-ladder just where you used it."

Sydney looked sheepish. That was a transgression of one of his father's strictest commands. "I forgot," he answered, and started to remove it.

"Hold on," cried Ronald, "you've hung your house too near the end of the limb, and you've got the front wire twice as long as the other one so that if the birds build in your box their weight and the weight of the nest will tip it so that the opening will be at the bottom instead of at the side. Besides," he added, as he walked around and took another view of the structure, "you've left your wires too loose. The box is liable to slip out of them. You ought to have taken some nippers and to have drawn the wires tight before fastening them. You'd better climb on that step-ladder before you put it away and fix your house as it should be or I'll bet you won't get a tenant this summer."

"I knew you'd have a lot of fault to find, you're such an old granny," replied Sydney, still walking away with the ladder. "I'm not going to change that house. I tell you it's good enough and the end of that branch will be ever so much better liked by any birds than the same bough farther back where it is less bendable. The wind will rock that nest just like a cradle."

"And when the bough breaks the cradle will fall, and down will come birdies, cradle and all," quoted Ronald, derisively.

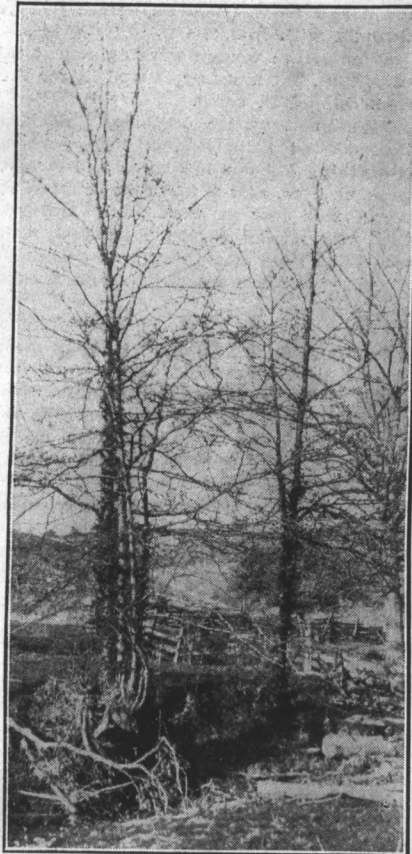
"It won't do any such thing," responded Sydney, testily, as he walked off with the step-ladder. For a while he left the domiciles of the birds entirely to Ronald, confining his interest to criticisms of his brother's efforts. Ronald made several after the general plan of Sydney's, which he thought, a very good one. He was careful to leave the wires long enough so that the houses hung six or eight inches below the bough to which they were fastened and at a distance from any other limb so that the nest might be protected from cats and red squirrels. Many of his houses were occupied as soon as they were put up, while Sydney's remained tenantless. Bluebirds, wrens and martins frequently inspected the premises but did not find it to their liking. Even English sparrows disdained it.

Encouraged by the success he had with his smaller houses Ronald made plans for a more pretentious mansion. He took a ready-made box which was twelve inches square and six inches high and put partitions through the inside, dividing it in four parts. Then he made holes for each division through which the birds could enter and nailed a perch under two

THE "GROUCH" TREE.

BY CHAS. A. HARTLEY.

The greatest "grouch" of the woods family is commonly known as a honey locust. It may be found in many places in the United States and it is so bristlingly repellent that birds do not build in it, not to mention that small boys do not go near it. It is covered with long, green, keen thorns from the roots to the highest twig. In its isolated grouchiness it repels man, bird and beast. It bears a fruit of a rather sweetish taste, molasses-like in consistency, but no one makes a business of gathering the fruit from the tree. In the late fall it may be clubbed off the unfriendly branches, but no one would



think of approaching such a tree with a ladder, much less attempting to climb it. Some think that this was the tree which furnished part of the sustenance for the children of Israel in their journey through the wilderness. If such was the case they must have had strenuous times in gathering their food.

of entrance. After getting the inside of the box fixed to his liking he nailed on the cover and made a roof after the same style as in the first house only that he divided his attic into two apartments and made holes in the gables for the entrance. After getting the inside of the box fixed to his liking he nailed on the cover and made a roof after the same style as in the first house only that he divided his attic into two apartments and made holes in the gables for the entrances. When he had the box at this stage his father came along.

"Are you making another house, my son?" he asked.

"Yes, father, this is a six-room apartment; don't you think it is fine?" and he held it up for inspection.

"It certainly looks very fine but I am afraid you'll hardly get the class of tenants you want in it. So far as I have observed English sparrows are the only birds that like living in apartment houses."

"And martins, father. Don't you remember the box we had once that had three or four families of martins every summer," corrected Sydney.

"I do recall that, now you speak of it. But even martins are not as choice birds as bluebirds, robins or wrens."

"I've gotten this so near done," said Ronald, now looking at his work a little doubtfully, "I believe I'll finish it. If I get tenants I do not like I'll have to eject them."

He really made a very pretty house of it. After the frame was finished he got bark from an old tree and covered the entire structure with that. Then he nailed it to the squared-off top of a long pole, bracing it by two slats extending from the pole to the edges of the box. The next thing was to dig a hole in the garden where he wished to set the pole. Sydney, who had forgotten all about his ill humor of a few days before, good naturedly offered his assistance. While they were busy excavating they saw a



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I cut a hole and nailed a perch just as you did, only I put the perch across the corner instead of nailing it parallel with the bottom of the box. Then I took two pieces of baling wire and fastened them around the box near the ends, making their joining come at the top of the roof, and I left one end of each wire long enough to wrap around the limb of the tree. Then I got the step-ladder and

of them. He did that as an experiment because someone told him that bluebirds did not use a perch before their doors and English sparrows did. He thought by leaving off the perch he might avoid the sparrows, and he tried both plans in other houses.

He was disappointed, however, in the result, neither sparrows nor bluebirds showing any preference for either mode

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pair of white-bellied swallows inspecting the house which was still lying upon the ground.

When the boys had the hole ready and carried the pole to it the swallows followed them, twittering and darting hither and thither, and before they had fairly elevated the sapling in its place one of the swallows darted into one of the apartments, coming out again almost immediately.

"You've got your tenants, sure, Ronald," said Sydney, watching the birds while his brother filled in the dirt, tramping it down firmly as he proceeded.

"What do you suppose made them think that house was for them?" queried Ronald, stopping to look.

"I don't know. They must have occupied apartments before. They are evidently going to appropriate one of these. Look, there's the mate. They are investigating the different rooms. One has just gone into the attic." The birds hovered around the dwelling, until evening and the first thing the boys saw in the morning was the swallows moving in their furniture. They remained there all summer, bringing up two broods, but not allowing any occupants in the other rooms of the dwelling, successfully driving away some English sparrows that would have liked to become co-tenants with them. Just how the swallows knew that house was for birds, even when it was lying upon the ground, has been a subject of much discussion in the Ames family but has never been conclusively decided.

The boys put up many other establishments for the birds, not all of which were attractive enough to secure tenants, or perhaps there were not birds enough to go around. Some of their houses were made of tin cans, some of hollow limbs. They found that nests nailed directly to the trunks of trees did not give as good satisfaction as those nailed to poles or stakes. Cats and red squirrels would get at those fastened to tree trunks.

"There is one thing more I'm going to make for the birds and then I'm going to quit for this season," remarked Ronald to his brother.

"What's that?"

"I am going to fix a bathing platform."

"How are you going to do it?"

"I am going to take a piece of plank about twelve by twenty, if I can find it, and I am going to nail it to the squared-off top of a fence post. Then I am going to set the post in the yard at some distance from any tree, fence or building from which a cat could possibly spring to the platform. On that plank I am going to put a shallow dish which I shall fill with fresh water every day so that the birds can drink and bathe in safety."

"You'll find the birds will appreciate it if you put a few stones in the water where they can sit and preen their feathers," suggested Mr. Ames who had heard Ronald's plan.

"Thank you, father, I will do that; and in the winter I intend to use this same platform as a feeding table and see if I can't keep the birds here during the cold weather. I've read that it is more lack of food than cold that takes the birds south. We always hang out suet, but I am going to see what feeding some grain will do."

"You can try it, Ronald, but I think you will find nature is a pretty hard thing to overcome, and nature seems to send the birds south."

Ronald completed his platform and the birds certainly showed their appreciation of it. Never had there been so many at Sunny Brae farm as that summer. Late in the season, after a heated term which had prostrated everybody, there came a terrific rain and wind storm. After it was over Mr. Ames and the boys walked out to see what damage had been done. Fences had been blown down, shed roofs blown off and the ground was strewn with broken limbs of trees. One of the things they encountered was Sydney's bird house, or rather its remains, lying on the ground. It had slipped out of the loosely encircling wires and fallen down as Ronald predicted it would.

"There," said Mr. Ames, "you see what has happened to your carelessly hung house, Sydney. If the birds had not been wise enough to keep out of it there would probably have been some eggs broken or birds killed. You must have noticed that every one of Ronald's houses has been uninjured by the storm. It pays when you do a thing to do it well, my son."

Sydney stuck his tongue in his cheek and felt very much ashamed. Mr. Ames forbore making any further remark, hoping the object lesson would help cure Sydney of his bad habit of thinking and

saying, "That's good enough, let it go," without taking care to have a thing exactly right.

ONCE A MORMON.

(Continued from page 518.)

a revelation that it was right to take property from the Gentiles when he found that people who had come here through his representations were in want and he did not know of any other way out of the difficulty? Don't talk to me of revelations."

"Do you mean that you do not believe his revelations come from God?" gasped one in astonishment.

"Just that and nothing more. I believe they are manufactured in his own brain and so will you all before you get through with him."

Some of the women were aghast at this rank talk, but more applauded it, for they were indeed in arms.

"We must arouse ourselves," declared the spirited little leader; "we gave up everything but our husbands and families to come here, and most of us counted the world well lost at that price, and now that man means to take them away from us. It is time something was done."

"But what can we do?" asked another helplessly.

"I will tell you. We will meet him on his own ground. There is to be a meeting at the tabernacle tomorrow evening and I propose that we women go there in a body and talk Strang down. We will take our Bibles with us and prove to him that God never upheld any such work."

The most of the women agreed to this, for they were desperate and anything that promised relief from their fears was hailed with delight, but there were many who had no hopes whatever of moving the king. It will only anger him, said more than one, but there seemed no other way and they must make the venture.

One of Myra's neighbors asked her to go with them. "No, I cannot do that," she answered gravely; "of course, I feel very sorry for you, but it would only make the king angry at me and he is so kind to James I could not think of such a thing."

"But you are no safer than the rest of us," urged the other. "Do you not fear your husband may take another wife?"

"Indeed I do not," she answered happily. "James and I have always been all the world to each other and he has often assured me that he would never think of doing such a thing. Of course, I know that he would not, and as long as I am happy I think it best to let well enough alone, although really I am very sorry for you all and I think it is terrible."

The woman turned away without urging her further. So had her husband assured her he would never take another wife, but she feared the commands of the king. She knew he always found a way to punish those who disobeyed his commands and she knew he had around him those who were only too glad to obey any commands he might issue.

But the women went to the meeting with heavy hearts. The king looked astonished at this uninvited company to his conference.

"What is the meaning of this?" he asked.

"We come with a petition, signed by nearly every woman in this community," declared their little leader.

"A petition for what?"

"That you leave us our husbands and give us the right to live happy, honest lives," she answered with spirit.

"I was not aware I had ever interfered with your doing so," he answered blandly.

"But you have," she declared, "when you order our husbands to bring other women into our homes to mar our happiness and cause us to live in a life of shame. I tell you that we will never stand that. You might at least have left us our husbands. You know that such a thing is not right. You often assured us that it should never be allowed. You have broken your word to us and we protest against the injustice of it."

The king's face during this time grew black as night. Turning to the guards he said, "Put these insolent women out," but the guards did not obey. Some of them had wives among the number and others were with them in sympathy.

"Put us out, would you?" cried one.

"Yes, that is a coward's way of settling a question—evade it. But we are here and we mean business and you have got to hear what we have to say, King Strang. We will not submit to being robbed of all we have in the world. You



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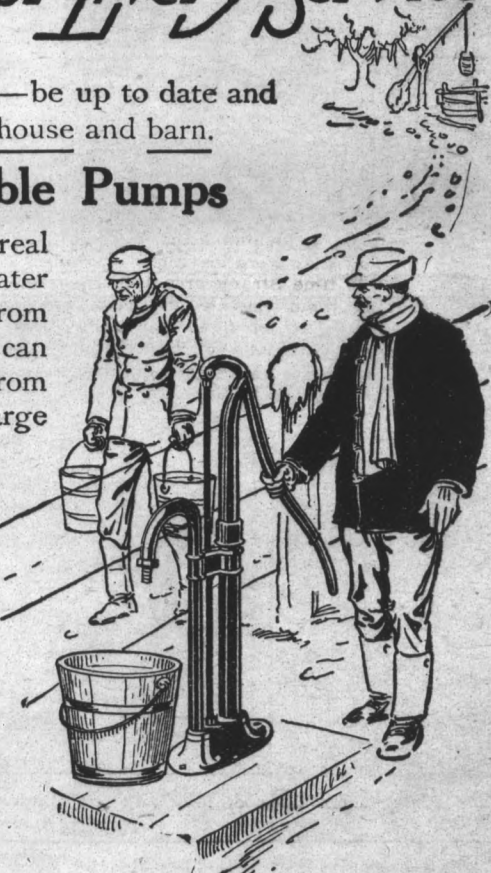
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deceived us to get us here, and we will submit to no more."

The scene was certainly an impressive one. At the end of the room on a raised platform sat the king and his advisers; facing them was the band of determined angry women.

Then as he remained silent one of the women opened her Bible and began reading to him. God's laws were vastly different from his laws, but all that he knew before, yet she read on and on, turning rapidly from one page to another. If the king had been angry before he was simply furious now. His face was dark and distorted with rage and some of the women felt faint as they saw it, but their plucky little leader heeded not the signs as she talked on and on, telling him what she and the rest thought. At length she paused and the king asked sarcastically, "Is that all?"

"No," was the reply, "that is but the beginning of what I could say, but what is the use of further talking. You know as well as I that this thing is repulsive in the sight of God."

"You certainly ought to be ruler here, you seem to know so well how to rule," answered the king with a sneer.

"Will you give us the assurance we demand?" she asked.

The king smiled. "I am very sorry to have to disoblige you, my dear madam, but—"

"You will not then listen to me," and her eyes took a faraway look as though she was not in the present, or as though she saw something not seen by the rest. "Listen, O king, and I will tell you your fate." The king started and all looked at her with something like fear as they saw her face. "You will be exalted for a time, and the state will honor you with an office of trust, but beware, it is not for long. I see," she paused and raised her hand, "the picture is dimmed by what? Blood? Yes, that is it, your reign will be short and the end will come with a bullet; aye, and it will come speedily—" with a moan she sank unconscious and was carried from the building, followed by the sorrowing women she had hoped to help. The anger of the king was something terrible. And yet being, as most such men are, superstitious, he feared her prophecy although he endeavored to make light of it.

"She is crazed," was his explanation, but he forbade any having aught to do with her and declared that had she lived a century earlier she would have been executed as a witch. He took his revenge, however, by telling other of his elders that he wished them to take more wives at once.

A few obeyed, but the women who were willing to thus form a third to a household were not in the most part very desirable and some of the men hesitated. Each had one wife and most of them did not believe in the doctrine; those that obeyed did so either from fear of the king or because they wished to court favor of him. The island was now in a turmoil indeed, and under his directions the persecutions of the Gentiles were becoming more and more severe. Since the death of Bennet many were so frightened that they were leaving everything. About this time Strang preached a sermon, telling them that it had been revealed to him that he could not be harmed, and that especially should he be free from harm of a bullet, for his life was charmed and one could not harm him.

Soon after this an event happened that gave the people more faith than ever in their king.

Chapter XII.

The island was all agog when it became known that King Strang had been arrested. Some of the people were frightened; others had the faith to believe nothing could harm him and, so far as the law was concerned, it seemed they were right. Although held under a number of charges, with public opinion against him, he managed to acquit himself of all charges and returned to the island more of a hero and a god in the eyes of his people than he was before.

The spirited little woman, however, who had faced the king in his council was gone. Her husband had been ordered to take another wife before the king again appeared on the island and was plainly given to understand that he must suffer the penalty if he did not comply, and he had disappeared, together with his wife. Where or when he went no one seemed to know. Some there were who hinted dark things regarding the disappearance, but for the most part it was conceded they had escaped in

some way to Mackinac and from there back east again.

Another thing that did not please the king at all was the fact that his wife had visited the island during his absence and had burned his robes and talked to the people, counseling them against the doctrine he preached, but his recent victory, together with other happenings, made him for the time a king indeed, whom none dared dispute. It was soon after his return that he told James Baldwin that he expected him, as one of his elders, to comply with the law and take another wife, and that he had selected one for him.

Jim's face paled at the command, but he dared not disobey. As before stated, he was a weak man and he now seemed to be entirely under the control of Strang.

Myra Baldwin never forgot that day, the last day of her happiness. After that she was, as her name indicated, one who weeps. She was singing about her work with no thought of coming evil. James had had to go to the tabernacle, he told her, on business, and she had pouted a little, declaring that the king was taking too much of his time, but he kissed her more tenderly than usual as he answered: "I have to help make the laws you know now, and there are many things that are not pleasant that must be borne." How well she understood those words a few hours later!

The supper had just been cleared away when Myra burst into her parents' home, her face swollen and tear-stained, and fell with a low cry at her mother's feet.

"Oh, mother, why can't I die," she moaned.

"Myra, child, what has happened?" asked her mother in alarm.

"James," she managed to falter, but her words failed her and she could only look at her mother in agony, hoping she would understand.

"What has happened to James, dear? Try and tell me," her mother said soothingly, for she saw the girl was almost prostrated, while Elinor, fearing she knew not what, drew near and took her sister's hand.

"I think I can tell you what this fuss is all about," broke in her father, coldly; "James has obeyed the king and brought home another wife."

"O, father—and you knew," moaned the stricken girl.

"Why, yes, I knew, but what is the use of making a fuss; it was bound to come."

Elinor was holding her sister in her arms now, for her mother seemed deprived alike of speech or motion. Elinor crooned over her as though she held a baby that needed to be comforted. She took no notice whatever of her father.

Mr. Brandon watched them for some time in silence; then Myra found her voice.

"Oh, how can I bear it! I never dreamed of such a thing! James has told me repeatedly that he would never think of taking another wife. He kissed me good-bye this morning and was as nice as ever to me, and I was waiting for him so happily—and when he came that woman was with him. I could not believe it at first, although James told me himself. He said he was sorry I felt so badly, but it was the king's command and he had to obey. He even suggested that we try to live together like sisters. Sisters, indeed! I would die first, and so I told him. Oh, what shall I do?"

"Go back to your home like a sensible woman and stop making such an outcry," answered her father. "It is the only thing you can do; you certainly cannot stay here."

Myra staggered to her feet. "Do you mean, father, that you refuse to give me shelter? That you expect me to live in the same house with that woman?"

"Certainly! You are a married woman and your place is with your husband."

"My husband! From this day I have none, but do not fear, I will not trouble you," and she turned toward the door.

"Wait a minute!" It was her mother's voice, but oh, how changed; it cut like steel when she spoke again. "Amos Brandon, one half of this property is mine and I hold the deed to it. It was money that came from my parents that bought it."

"No one has ever denied it, Martha," answered her husband in some surprise.

"Because they cannot; father attended to that when he made his will. When Myra goes from this door I go also, and I demand that you set off to me the portion that is mine and my children's after me, that we may have our living."

(To be continued).

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Woman and Her Needs

At Home and Elsewhere



WEAVING FOR CHILDREN

BY GILBERTE HOLT.

To imitate the activities of the grown people about them, gives children the keenest delight. So, while mother is busy making the latest thing in woven silk portieres, rag carpets, or bed-room rugs, her small son or daughter should have the joy of doing likewise; and at the same time gain much educationally by engaging in the more simple forms of the craft of weaving.

Knowing, as we all do now, that in the childhood of each boy and girl is paralleled the successive stages of the childhood of the race, we should look to the primitive industries for work to occupy young brains and fingers. Weaving is one of the oldest of the hand crafts. Indeed, so ancient is it, that its beginnings are lost in the mists of antiquity. All little girls delight in doing it; also most small boys. However, now and then a boy of eight or ten years may be inclined to feel that his masculine dignity necessitates a protest that weaving is an occupation fit only for girls. But even while he protests the loudest, his fingers will fairly itch to push the strips "over one, under one," as he sees how easily and quickly it is done, and how soon he will have something to show for the effort expended.

Even boys of twelve years, who have found time hang heavy on their hands have been induced to try weaving through a reference to history, where they will find that weaving was not always "women's work." The men of ancient days were expert weavers and handed the art down from father to son, or as an old rhyme tells:

"The mothers taught their daughters,
sires their sons,

Thus in a line successively it runs
For general profit and for recreation,
From generation to generation."

Children of four years may begin on the simpler forms of weaving and the more complicated designs will hold the interest of children of more advanced years.

To begin this work with the little ones, it is best to use the mats of the kindergarten, until the art of handling the material is acquired. These mats may be procured of any kindergarten supply house, or can easily be made at home by a mother or older sister.

The material required is a good firm paper which will not readily tear. For this purpose a rough drawing paper, which comes in cream, grey, tan and white is very good. Then there is also a cheap rag paper, commercially known as bogus paper. This last makes very good material for early attempts, being inexpensive, and as it is quite stout is less liable to tear. If neither of these papers is obtainable, a strong quality of butcher's wrapping paper can be made to serve. The only drawback to the bogus and butcher's papers is that they come only in one not very attractive shade. The bogus is drab and in so far as color is concerned the butcher's paper is more satisfactory. For the weaving the mat should be of one color while the strips or weavers should vary either in color or shade. If mats are bought from a supply house, the strips are provided, but in the home-made ones this difficulty may be met by giving the child a new and delightful occupation for a rainy afternoon; that is, to color one sheet of paper, to be afterwards cut into strips.

The coloring of the paper may be done with either crayon or water colors. Take the yellow brown butcher's paper, for instance, with strips colored either blue or a pretty shade of green, this would work up into a very effective mat. To prepare home-made mats, take a sheet of butcher's paper, cut to any size square desired (10x10 inches is a good size for a beginner), fold the square so it will be an oblong 10x5 inches; at each end and across the top (the top being where the

open ends are), draw a margin of one inch. Along the bottom or folded end measure one-half inch spaces, then from bottom to top margin line cut slits, open paper and the mat is ready for use. For the strips or weavers, cut the previously colored paper into strips one-half inch wide by 10 inches long. Then you are ready for the weaving. The strips may be inserted either with the fingers or weaving needles which come for this purpose. The needles are not a necessity, but as the work develops, in the finer weaving where the weavers are much narrower, the needle is a great aid to short, unskilled fingers.

In following the directions for weaving, do not count the border as a strip, the weaver always goes under the border at both sides. So, when the first direction of weaving, over one, under one, is given, the first strip next the border is where the count begins. This first step is soon mastered and it may then be varied by over one, under two, or in any variation which may suggest itself in developing a design. At first the child will need some direction, but not for long, for weaving holds a fascination of its own and children love to experiment to see how they may themselves work out a pattern. Of course, in these early patterns the idea of symmetry will be somewhat crude, but balance and proportion are quickly learned with a little helpful criticism as to where the originated design lacks these qualities. When the mat is woven, the ends of the strips should

be pasted down on the under side of the border strip.

Beside the pleasure a child enjoys in this weaving play-work he unconsciously begins the cultivation of such virtues as patience, accuracy and economy. Only a certain number of strips, the number depending on the size of the mat, should be given to complete the work and the child learns that he must not be careless or wasteful of the paper strips or he will lack material to complete his work.

After the child has once mastered the way of doing the work he will greatly enjoy the weaving, but some way of utilizing the finished product must be devised or interest will die through a feeling of the uselessness of it and he will feel that all his hard work has been of no avail. This feeling of futility is most harmful and so to prevent it, a use for his weaving must be contrived. A little ingenuity will suggest many things into which the mats may be made. As folding them into boxes, baskets, hair-receivers, covers for magazines, picture frames, etc.

Three mats might be fastened together to form a flowerpot holder; the fastening to be done either with paper clips or by sewing along the edges with yarn.

A really attractive handkerchief box was made of eight mats, 8x10 inches in size. To make this box, paste two mats together back to back for the cover, do the same for bottom of the box; for the two long sides fold and paste two mats the long way, so they will be 10x4 inches, for the short ends of the box, fold and paste two mats the short way, 8x5 inches; punch holes along edges and sew together, sew outer edge of cover to the long back side, fasten in front with large ribbon bow. This model was worked out at Christmas time, the colors employed be-

ing the holly red and green. The bow of ribbon was bright red and a spray of artificial holly thrust through the bow of ribbon completed a most attractive gift. At another time this same model was worked out in lavender and green and filled with spring wild flowers, and brought a bit of outdoor life to a shut in.

A few articles made of paper is quite sufficient and if the weaving has been given to the child in such a way that he has found the play element in the occupation, he will wish to continue the work in more lasting material, as did one little girl. She had woven a doll bed cover and then grew ambitious and made a spread for her own bed. This cover was very pretty, worked out in delft blue and white to match the small weaver's room decorations. The idea, could, of course, be developed in any color or material desired. This one was made of blue percale cut into squares 8x8 inches. These squares were slit the same as the paper mats, then woven with one-half inch strips of white percale. The ends of the strips were tacked down. Then the requisite number of squares for the size of the bed were sewed together in a manner similar to the old style patchwork quilt. The completed spread was lined with blue percale and a fringe of blue and white cotton weaving twine was added.

The weaving of the cover might have been all done in one piece the size wished, but to do this it would have been necessary to put the work in a frame which would have taken up a good deal of space; also, all the work would have to be done in one place. Whereas, by doing it in the small squares, the little girl did not feel the task irksome, as she did the weaving at odd moments and the work was often carried to the homes of her



Living Room in Mr. Cook's Country Home. (See Illustration of Exterior on First Page).

THE COUNTRY HOME.

(Continued from first page).

for each bed-room, and a sleeping-room on the first floor.

Figure one shows our home. Like the vegetables in the cellar and the children on the porch, it literally grew on the place, for excepting the shingles, every foot of lumber came out of our farm woodlot, another argument for conservation. Above is shown one end of our sitting-room. At the time the picture was

taken the gramophone was giving us a talk by President Taft on the Postal Savings Bank. The badger on the mantel was killed in our woods. The baseball by the clock was won by our country team of farmer boys in a clash with the team from a neighboring town.

The money that we have invested in comforts and conveniences would have purchased forty, or possibly eighty, acres of land. But will not the influence and memory of a home of which they are proud, a home which yields nothing in

the way of comfort, convenience or recreation to the homes of their city friends, be a richer heritage for our children than an extra eighty? On too many farms the end and aim of life seems to be to buy another forty, but the sum total of happiness in hundreds of thousands of farmers' families would be vastly augmented by selling a forty, if necessary, and using the money to improve the home by installing modern appliances and purchasing comforts and conveniences. Shilwassee Co. A. B. Cook.

friends where she might work in company.

Her brother of twelve made a smart looking pillow of woven leather for his room. For this he had a square of russet brown leather 18x18 inches for his foundation or mat. With a sharp knife he cut the slits; then for his weavers he used scarlet leather cut in strips one-quarter of an inch wide and 24 inches long, the strips being the extra six inches in length that they might make a three-inch fringe at either side of the pillow. Being well and tightly woven, the natural stiffness of the leather kept the strips in place without further fastening. This boy had woven enough to become interested in design and so instead of the simple form employed by his little sister in her spread, his pillow was woven in a pattern of his own invention. In cutting a mat for a design of this type be sure there is an uneven number of slits. For making this pattern the directions are:

First strip.—Over 1, under 15, over 1.
Second strip.—Under 1, over 1, under 6, over 1, under 6, over 1, under 1.
Third strip.—Under 2, over 1, under 4, over 1, under 1, over 1, under 4, over 1, under 2.
Fourth strip.—Under 3, over 1, under 9, over 1, under 3.
Fifth strip.—Under 4, over 1, under 1, over 1, under 1, over 1, under 1, over 1, under 4.
Sixth strip.—Under 5, over 1, under 1, over 1, under 1, over 1, under 1, over 1, under 5.
Seventh strip.—Under 6, over 1, under 1, over 1, under 1, over 1, under 1, over 1, under 6.
Eighth strip.—Under 7, over 1, under 1, over 1, under 7.
Ninth strip.—Under 1, over 1, under 2, over 1, under 3, over 1, under 3, over 1, under 2, over 1, under 1.

This ninth strip is the middle one in the pattern and the remaining portion is worked out by going backwards, as the tenth strip is the same as the eighth; the eleventh, like seven and so on. These, of course, are merely examples of what the simple weaving may be developed into.

But to return to the easier weaving for children from four to seven. A doll hammock gives much pleasure and is simple of construction. It is made on a small cardboard loom.

To make the loom, cut cardboard 6x8 inches, punch two rows of holes about one-quarter of an inch apart. In the middle of the back of the card sew loosely two brass rings, which have been previously tied together. Tie one end of the warp cord through the brass ring, No. 1. Put the other end of the cord through the first hole of the lower row, bring it through to the right side, and draw it through the first hole in the upper row and down on the wrong side to the second brass ring. Pass it through the ring and back to the second hole on the upper row, then through the second hole in the lower row through ring No. 1 again and so continue until the warp is completed. Then with either Germantown yarn or raffia, as wool threads, weave, over one, under one until the hammock is completed. To take the hammock from the loom it is necessary to destroy the loom. But any piece of cardboard box will do to make another loom, so the expense is practically nothing.

Small circular mats which can be used on the table under hot dishes can be made on small circular looms. The diameter of the loom will depend upon the size of the mat required. For a small mat as a beginning, cut a circle of cardboard six inches in diameter, one-quarter of an inch from the edge, make a row of holes. It is necessary to have an uneven number of holes. Place them one-quarter of an inch apart, measure the distance accurately, for the main beauty in this type of mats, lies in their evenness and accuracy. In the center of the cardboard cut a hole one-quarter of an inch in diameter. Wind the warp threads, any stout twine would answer, beginning at the center hole. Hold the warp in position, pass it over the upper side of the card, through a hole at the edge, around the back of the card and through the center. Continue to wind back and forth, passing through the outer row of holes in regular order and back again each time through the center hole. Begin to weave at the center and work toward the edge of the circle. Be careful not to draw the wool too tight in going over and under the warp or the mat will bulge and not lie flat when taken from the loom. When the weaving is done, cut the warp threads on the back half way between the edge

and the center of the cardboard. The ends at the outer edges are either tied together to form a fringe or like those at the center are, with a darning needle, run into the weaving on the wrong side of the mat. The material used in these mats may be either macrame cord, in white or colors, or the warp may be of the macrame cord and the wool of raffia. The raffia makes the more durable and attractive mat for table use, but the macrame cord is more pliable for small fingers.

Unless a child is ten years of age or older, the loom would have to be prepared for him and he would probably require some assistance in the finishing, but the weaving could be readily done by any child of five years or over.

Raffia, which is the inner fibrous bark of a tropical tree, is very good for weaving. It may be bought at quite reasonable prices at florists, wholesale seed houses or kindergarten supply houses. It comes either in the natural straw shade or dyed any color desired.

THE SUNDAY DINNER.

Mock Bisque Soup Croutons

Jellied Chicken

Escalloped Potatoes Mashed Parsnips

Celery and Nut Salad

Peach Cottage Pudding Nectar Sauce

Mock Bisque Soup.—Cook sufficient tomatoes to give one pint of liquid when put through the strainer, allowing them to simmer on the back of the range at least an hour as the flavor is improved by long cooking. Add a quarter teaspoon of soda while cooking to neutralize the acid. Make one pint of white sauce, by melting two tablespoons of butter in a saucepan, stirring in one tablespoonful of flour and adding one pint of scalded milk a little at a time, stirring constantly to prevent lumps forming. Add the tomato which has been strained, boil up at once and serve with a tablespoonful of whipped cream on each individual service. A bit of finely minced parsley sprinkled on the cream gives a pretty touch to the dish. For croutons, cut stale bread in inch cubes and toast a nice brown in the oven.

Jellied Chicken.—Stew a chicken slowly, for two hours, or until tender. Remove the skin and bones and simmer an hour longer in the broth. Put the meat through the food chopper, using the coarse knife. Strain the stock, add a half ounce of gelatine, which has been soaked in cold water, pour in the meat and then pour all in a chilled mould. One chicken will require a quart of stock to form a nice mould.

Mashed Parsnips.—If parsnips are wilted soak two hours in very cold water, scrub and boil with the skins on. When done, drop in cold water and remove the skins quickly, as you do beet skins. Put in a dish over boiling water and mash and season.

Peach Cottage Pudding.—Mix three tablespoonfuls of melted butter with one-half cup of sugar, add one well beaten egg, one cup of milk, two cups of flour, three level teaspoonfuls of baking powder and one and one-half cupfuls of canned peaches sliced thin. Bake in a buttered and floured tin half an hour. For the nectar sauce, strain the peach juice and add three-fourths cup of sugar. Boil up, thicken with two teaspoons of cornstarch and add a teaspoon of vanilla.

RECIPES.

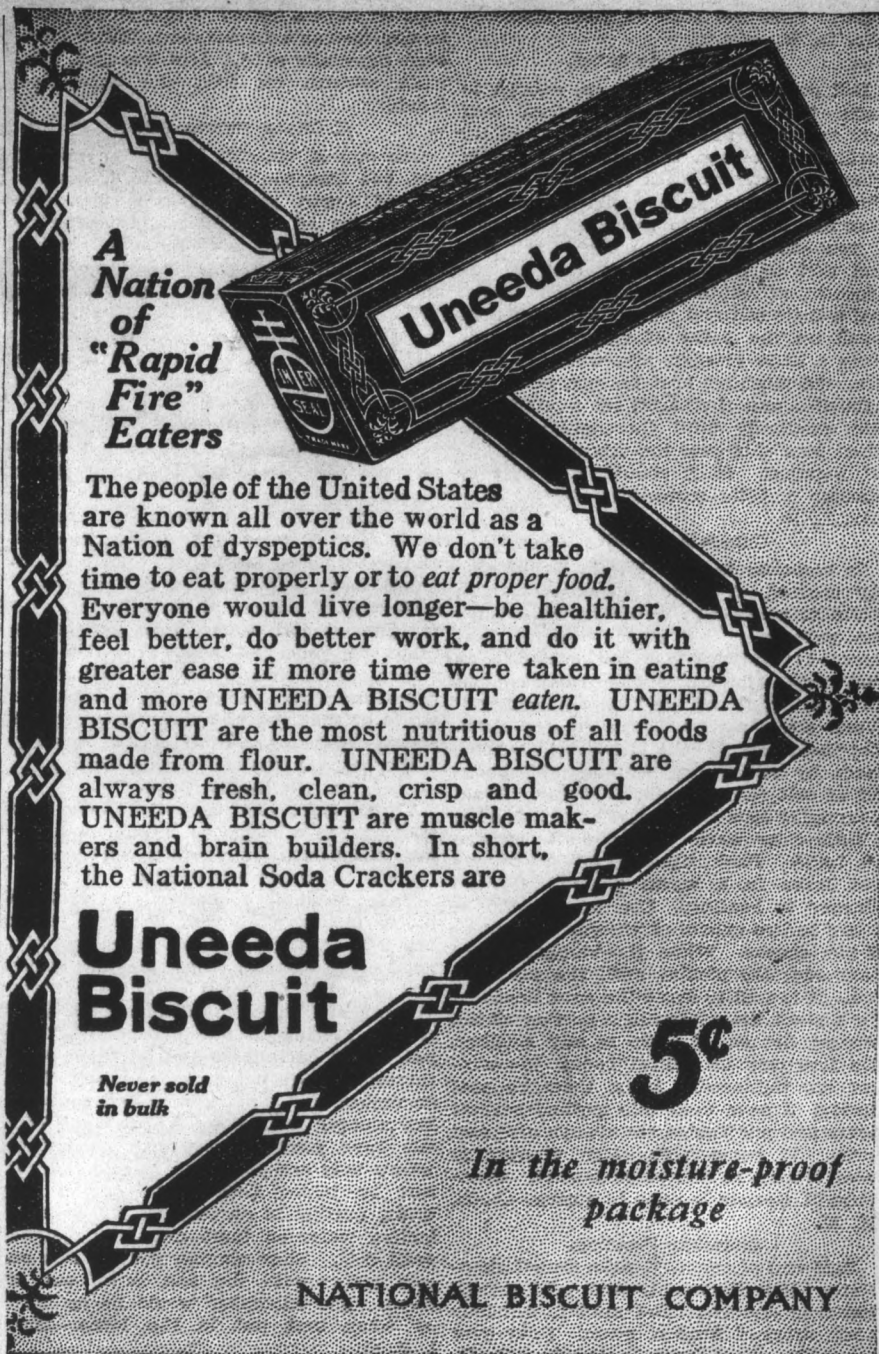
Wants a Crack Filler.

Will someone tell me through the paper how to make a good crack filler for a floor that I wish to oil and varnish? I will send some recipes later.—Mrs. J. W. P.

Besides the recipes printed in response to Mrs. A. C.'s request for pickles that will keep, thanks are due to Mrs. F. E. P., Mrs. E. C., "Reader," Mrs. L. W. A., Minnie A., An Interested Reader, Mrs. L. W. L., Mrs. L. M. McC., Mrs. M. R. and Mrs. S. C.

Mock Angel Food.

Set one cup of milk into a dipper of boiling water and heat to the boiling point; into a sifter put one cup of flour, one cup of sugar, three teaspoonfuls of baking powder, pinch of salt. Sift together four times; into this pour the cup of scalded milk and stir smooth. Then put in the well beaten whites of two eggs; do not stir or beat eggs in but fold them in carefully, drawing the spoon back and forth until evenly folded into batter. Do not grease the tin. Ice with



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The people of the United States are known all over the world as a Nation of dyspeptics. We don't take time to eat properly or to eat proper food. Everyone would live longer—be healthier, feel better, do better work, and do it with greater ease if more time were taken in eating and more UNEEDA BISCUIT eaten. UNEEDA BISCUIT are the most nutritious of all foods made from flour. UNEEDA BISCUIT are always fresh, clean, crisp and good. UNEEDA BISCUIT are muscle makers and brain builders. In short, the National Soda Crackers are

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sugar. This will melt in your mouth.—Mrs. L. R.

A Good Potato Salad.

Boil potatoes, with skins on, enough to make two or three pints; when cold peel and chop fine; boil eggs in shell till hard, three to six, the more the better; when cold chop whites fine and add to chopped potatoes. Chop one or two onions fine and add to potatoes and eggs, if you have celery chop one bunch fine and add to mixture; then add a teaspoonful of white mustard seed whole, and a little salt and pepper to taste; then mash up the yolks of eggs; pour over them a little vinegar, mix well and pour over the mixture; beat an egg, pour into a fourth a cup of vinegar, set on stove and stir constantly until thoroughly cooked. Then pour this over the mixture and stir all together. If it should lack salt or vinegar a little more may be added.—Mrs. L. R.

Cucumber Pickles.

In response to Mrs. M. C., I will give my method of canning cucumbers. In the first place, use a variety suited for the purpose. The garden sorts best adapted to slicing are not desirable as they are too immature when small enough for canning. I use the "Boston Pickling." Wash clean with a brush or soft cloth. Let them stand about 12 hours in a brine made by adding one heaping tablespoonful of salt to one quart of water. Drain thoroughly in a sieve or colander, pouring a little clear water over them to remove all brine. Pack tightly into fruit cans and leave in a warm place while the vinegar is heating. Use one teacup of sugar to two quarts of vinegar and spices if you choose. When the vinegar is hot pour over the pickles until the cans are full. It is well to leave the cans unsealed for a short time, keeping a portion of the vinegar hot so, if there is any settling, the jars may be refilled before the covers are tightened. Allow them to cool slowly. I have used this method several years and my pickles are always nice and crisp. If home-made cider vinegar is used it may be diluted somewhat. Commercial vinegar is none too strong.—A. E. H. M.

Chocolate Frosting.

Half cup of sugar, ¼ cake grated chocolate. Mix thoroughly and add enough water to dissolve. Boil until it will hair when dropped from a spoon. Pour over the white of one egg, beaten to a froth, and beat until cool enough to spread. This will cover one loaf.—A. E. H. M.

Who Cans Peas and Beans?

Can some of our readers please give me a recipe for canning green string beans and green peas so they can be used in winter, and can the spring top tin cans that one buys molasses in, be used if sealing wax is used on them?—Mrs. M. R.

Cucumber Pickles.

Half bushel cucumbers, 1 large cup of salt, boiling water to cover. Let stand 24 hours, then drain, take half vinegar and half water to cover pickles, alum the size of a walnut. Let boil and pour over pickles, let stand 24 hours. Then take one gallon of weakened vinegar, three pounds light brown sugar, five cents worth of celery and mustard seed, mixed. Let boil and pour over pickles packed in cans.—Mrs. E. M. G.

Chocolate Frosting.

One cup sugar, half cup milk, one square grated chocolate. Boil six minutes, then stir until just right to spread on cake.—Mrs. P.

Squash Bread.

Heat one cup of sweet milk and pour onto one cup of steamed and sifted squash, one-quarter cup butter, one-half cup sugar, one-half teaspoon of salt. Stir all together and when luke warm add one-half yeast cake and four cups sifted bread flour. Cover, let rise over night. In morning cut the light dough down with knife, fill bread pan or gem tins half full. When risen to top of tins it is ready to bake.—Mrs. P.

A Request.

Will someone please send recipe for making squash pies?—Mrs. P.

Graham Bread.

Will someone please send through the Michigan Farmer, a recipe for graham bread, made of sour milk or buttermilk?—Mrs. L. M. Mc.

Potato Salad.

Boil potatoes with skins on, peel and cut in small pieces. Make a dressing of two eggs, half cup of cream, half cup of sugar, half cup of vinegar, one level teaspoonful of ground mustard. Put all in pans but eggs, beat them, add, and when cool pour over potatoes. If too thick add more cream. This is very nice.

Will someone send recipe for fruit bars,

such as bakers make? I find much profit in the Woman's Department. Think Deborah especially good. Also like Mrs. Little's articles on food.—An Interested Reader.

A Cheap Potato Salad.

One cup of vinegar, butter the size of nut, one teaspoonful of mustard, quarter cup of sugar, yolks of two eggs, two tablespoons of flour, salt and pepper to taste. When cold add cream to thin as desired. Chop potatoes or cabbage fine, add as much of dressing as you like, and put the rest in a cool place. It will keep for a limited time.—Mrs. L. W. A.

If you desire me to, will send a recipe for cucumber salad that makes a fine relish. (Send it on.—Ed.)

Two Recipes.

We are sending two recipes and would ask the readers to try both and please report in these columns how they suit you. The first is cream pie. That is made with water. Make a bottom crust and bake before the filling is put in. Now for filling: One pint of boiling water, half cup of sugar, a little butter, two tablespoons corn starch, one egg, that is, take the yolk and beat with the corn starch to a smooth batter, adding the flavoring, your choice. Now take the white of that egg and three teaspoons of sugar, beat to a froth for a frosting. Place in your oven to brown.—Mrs. A. C.

Roll Jelly Cake.

Three eggs, one cup sugar, one cup flour, three tablespoons milk, one heaping teaspoon baking powder.—Mrs. A. C.

Cucumber Pickles.

Take a small cucumber that will go nicely into a glass can, put in a weak brine over night. Next morning take good cider vinegar, a few pickling spices and a small quantity of dill. Put the vinegar and other ingredients in a stew pan and bring to scalding point. Then put in the cucumbers and let them scald through but do not cook too much. Take cucumbers out, put in cans and pour the hot vinegar over them. Seal while hot. We have good success with cucumbers where they are put down in salt and got soft by taking them right out of the brine, putting in an earthen jar, pouring boiling water on them and letting stand until cold. Then change water. Put on cold water until the salt is all out of them. The cucumber would be as hard as when first put in the brine.—Mrs. I. S. C.

Fried Cakes.

Two medium-sized potatoes, mashed; pinch of salt, one cup brown sugar, butter size of walnut, two eggs, half cup of sweet milk, two teaspoons of baking powder.—Mrs. L. W. L.

Cucumber Pickles.

Take one peck of small cucumbers, wash thoroughly, put in salt brine, two cups of salt to one gallon of water. Let stand 48 hours, take out of brine, dash cold water over the cucumbers, spread out on table and dry. Then put into two-quart jars a layer of cucumbers, and spice you may like. I use the mixed spice. When bottle is half full put in four large tablespoons of brown sugar then fill jar as before. Fill up with good vinegar, cold, put ring and cap on jar and screw tight. Good to use in about two weeks. I have put up pickles this way for some of our leading hotels here in Menominee.—P. F. C.

Sliced Cucumber Pickles.

Slice 12 cucumbers with skins on, and one medium onion. Put in large tablespoon of salt, let stand one hour. Put on fire in stewpan, one and a half cups of vinegar, one and a half cups of brown sugar, one tablespoon celery seed, one teaspoon whole black pepper. Press cucumbers out of the brine, put into the boiling vinegar, let boil until they look glossy, remove from fire. Let cool and put in jars or glasses.—P. F. C.

Would Like Cornstarch Cake.

One cup granulated sugar, one cup salt, one cup mustard, one gallon good vinegar. I put this in a two-gallon jar then add the cucumbers a few at a time as I pick them, put grape leaves over them, then a plate to keep them under vinegar. Of course, most housewives know that not all vinegar, that is so strong that it has to be diluted, is good vinegar. Would be glad if someone would send a tested cornstarch layer cake.—B. E. S.

Editor Household Department:—I find a recipe for fruit cake taken from a German chef and sent by Mrs. S. Now, is there not an omission of soda or baking powder in the recipe? It would seem that there must be.—Mrs. C. I. The recipe was printed as contributed. Will Mrs. S. please tell us if soda or baking powder is required? Thank you for the cream puff recipe. It will surely appear later.—(Ed.)

A MAY DAY FROLIC.

BY GENEVA M. SEWELL.

Cut stiff white note paper into the form of a huge daisy, and write the invitation on the petals; put it into one of the cunning little baskets that may be purchased for a few cents, and tag with a floral tag having the name and address written on it. Then have it delivered by some small boy or girl who may carry all the invitations in a big basket.

The house decorations should be very leafy and flowery, using whole branches of apple or other tree blossoms. Have a large, round hoop fastened up in the center of the room, from which hang half as many tissue paper strips of different colors as there are to be guests, two strips of each color. When the guests arrive let the men choose a bow from one basket and the ladies from another; these bows will match the colors of the hoop and each two getting the same color will be partners for the little game called a Floral Romance, for which the hostess has prepared a little booklet with the title and a bunch of flowers on the outside and the questions on the inside. The questions are to be answered by the name of a flower or plant and instead of writing the answer the guessers are to paste in place a picture of the flower cut from a colored catalog and gummed ready to stick in by moistening. These flowers are in a basket fastened to each two colors, which are alike, making one basket and set of flowers do for each two guests. The Floral Romance will be found at the end of this article. More flowers than are used should be placed in the basket.

The place cards are miniature May poles made from short wooden skewers stuck into spools and then all given a coat of white enamel, then strips of different colored crepe tissue paper are fastened at the top all braided partly down then parted enough to show the name written in gilt on the "pole." These are to be taken home as souvenirs.

The confectionery should be served in little baskets and the ices made in flower forms if your caterer is capable of it.

The prizes may be bouquets of cut flowers in a pretty May basket or a growing plant or some choice flower seeds or flower stick or scarf pins. Any simple article will do.

This is the "Floral Romance," with answers in parenthesis:

What was her name? (Rose or Lily).
What did she say about marrying? (I marigold).

When a lover proposed to her on his knees what did she say? (Johnny-jump-up).

When he went away what did she give him? (Bachelor's buttons).

Whom did she say she loved more? (Sweet William).

When he proposed what did she say? (Ask poppy).

What did sweet William bring her? (Heart's ease).

Where did she get buttons for her wedding dress? (From the button bush).

What did she wear on her hands? (Fox-gloves).

And on her feet? (Lady's slippers).

Who married them? (The cardinal, assisted by Jack-in-the-pulpit).

At what time was the wedding? (At four o'clock).

Name some presents. (A shepherd's clock, a hare bell and a great candlestick).

What nickname did they give their boy? (Gen. Jacques).

What did he play with? (A rattle box).

What did they whip him with? (A golden rod).

What would he do then? (Balsam—bawl some).

TO REMOVE INK SPOTS.

In reply to Mrs. A. W. would suggest that she try oxalic acid to remove the ink stains from her white silk dress. Buy the crystal and dissolve in water, all the water will take up. Then soak the spot in the solution, leaving in only a few minutes at a time. When the stain is removed rinse in ammonia water. If a brown spot remains, soak a few moments in chloroform.

To make lace curtains last longer, when you launder them take them down, dust well and fold up. Soak over night in clear cold water, wring through the wringer, soak in hot suds, then wring, soak in boiling water, wring, rinse, and starch. Do not unfold until you are ready to put on stretchers.—E. R. B. M.

A WIDOW'S LUCK

Quit the Thing That Was Slowly Injuring Her.

A woman tells how coffee kept her from insuring her life:

"I suffered for many years chiefly from trouble with my heart, with severe nervous headaches and neuralgia; but although incapacitated at times for my housework, I did not realize the gravity of my condition till I was rejected for life insurance, because, the examining physician said my heart was so bad he could not pass me.

"This distressed me very much, as I was a widow and had a child dependent upon me. It was to protect her future that I wanted to insure my life.

"Fortunately for me, I happened to read an advertisement containing a testimonial from a man who had been affected in the same way that I was with heart trouble, and who was benefited by leaving off coffee and using Postum. I grasped at the hope this held out, and made the change at once.

"My health began to improve immediately. The headaches and neuralgia disappeared, I gained in flesh, and my appetite came back to me. Greatest of all, my heart was strengthened from the beginning, and soon all the distressing symptoms passed away. No more waking up in the night with my heart trying to fly out of my mouth!

"Then I again made application for life insurance, and had no trouble in passing the medical examination.

"It was seven years ago that I began to use Postum and I am using it still, and shall continue to do so, as I find it a guarantee of good health." Name given by Postum Company, Battle Creek, Mich.

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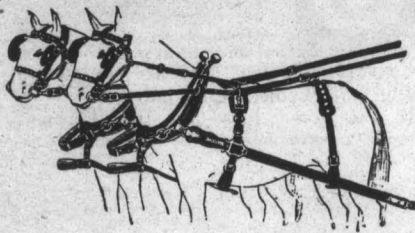
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Williams' Double Farm Harness: Bridles, $\frac{3}{4}$ -inch; Concord Blinds—Lines, $\frac{1}{2}$ -inch, 18 feet long—Steel Clad Ball Top Hames—Breast Straps and Martingales, $\frac{1}{2}$ -inch—Hip Straps, $\frac{1}{2}$ -inch—Traces, $\frac{1}{2}$ and $\frac{1}{4}$ -inch.

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(Continued from page 516).

000. Only two persons lost lives in the conflagration. Armed troops patrol the streets. The unfortunate business concerns state that they will immediately rebuild. But few families are reported destitute as the residences burned belonged largely to the more wealthy residents.

Governor Harmon, of Ohio, has intervened to prevent the legislature of that state from investigating bribery charges of assemblymen, since parties confessing before a legislative body are immune from prosecution under Ohio laws, and now the prosecuting attorney of Franklin county and the attorney general of the state will bring the men before a grand jury.

Foreign.

The Mexican government has appointed Manuel De Zamacona ambassador to the United States.

The Mexican rebels have captured the port of Topolobampo which is but a short distance from the cities of Fuerte and Sa Blas, places recently taken by the rebels. The towns of Caborca and Pitiquito of the state of Sonora were taken by the federal forces after a long contest. The parties failed to live up to the conditions of the recent armistice declared to give opportunity to consider peace arrangements, and secretly preparations were being made to take advantage of the delay in fighting.

Sir Wilfred Laurier, prime minister of Canada is being placed in a dilemma by the failure of the government to pass the reciprocity agreement since as long as it is before the Canadian parliament he feels obliged to be present, and yet it is almost obligatory upon him to attend the coronation in England of King George VII and the imperial conference of the rulers of the British possessions. The minority party of the Canadian legislative body has the power of blocking legislation almost indefinitely by taking questions to the people, making them issues upon which representatives are elected to the parliament. The opposition to the reciprocity agreement has made it known that every avenue open will be taken advantage of to defeat the measure.

French capitalists are asking concessions of the Brazilian government to build and equip a railroad between Rio Janeiro and Buenos Ayres. The object of the road is to bring the products of Argentine in closer connection with France and other European countries.

A conference of the potash interests of America is being held in Berlin, Germany, where it is expected that recent differences will be settled.

A revolution has started in the province of Canton, China. The rebels succeeded in forcing back the government troops and are now devastating the country of the province. An outlaw horde is taking advantage of the weakness of governmental control and is adding terror to the situation. The American gunboat Wilmington is protecting the city of Shamien.

The natives of a German province, Kamerun, of equatorial Africa, have revolted, and German troops have been sent out to quiet them.

The Camorra trial in Italy has again been resumed after a recess of several days owing to the illness of a juror. The trial is attracting wide interest.

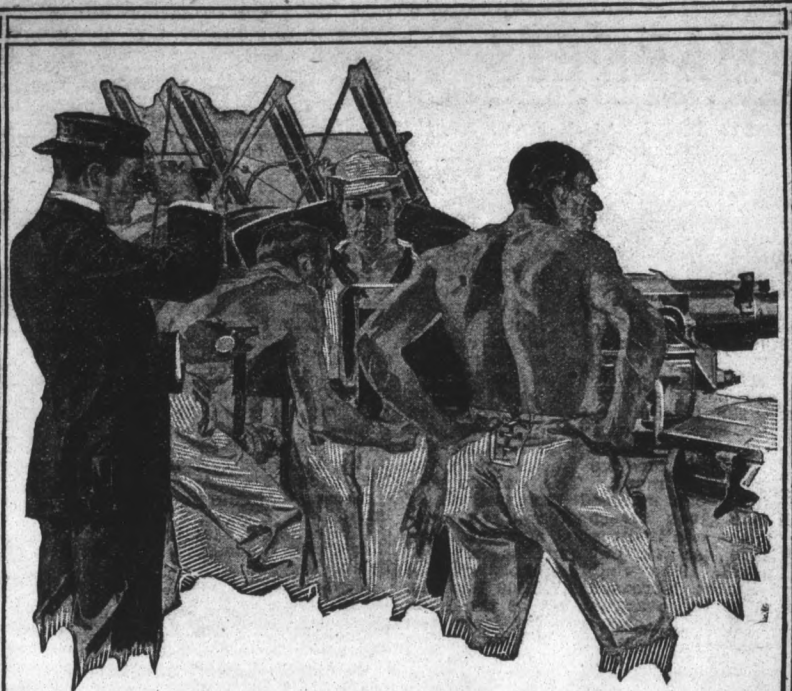
CROP AND MARKET NOTES.

Genesee Co., April 29.—Nice warm rain and fine growing weather are starting vegetation in great shape. Oat crop mostly in and quite a number of fields show green already. Pastures being turned into and live stock generally looking well. Work on stone roads begun; several miles to be built this season on trunk lines leading out of Flint. Hired help not plentiful for farm work and wages are high. Produce as follows: Wheat, 84c; oats, 35c; corn, 55c; potatoes, 55c; baled hay, \$12@15 per ton; dressed hogs, 7@7½c; butter, 24c; eggs, 17c; cows and horses both high.

Livingston Co., April 22.—The weather thus far during the month has been very cold and not more than 25 per cent of the oats are sown in this section. Wheat has come through the winter in excellent condition and promises a bumper crop. New seeding is also looking well but old seeding was badly injured. Pastures have only started slightly and unless warm weather comes soon feed will be very scarce. Farm help very scarce and wages paid are almost prohibitive. Weather conditions good for working horses.

Gratiot Co., April 26.—The weather has been dry through the month, no heavy rains, and grass is slow in starting. Wheat is looking well. Oats will be nearly all in by Saturday, April 29, if the weather is fair all week. Light freezes occur nearly every night. Produce has not materially changed in price since last month.

Ottawa Co., April 28.—Nearly every farmer in this section has his oats all sown, and it is seldom that the ground is in as good condition for putting in this crop as it has been this spring. A few have commenced plowing for corn, and an increased acreage will be planted this season. Wheat is looking well with the prospects favorable for more than an average crop. Meadows and pastures are a little backward; what is needed just at present is a good warm rain. The prospects for fruit are very flattering, as the season has been favorable. Hay is getting very scarce, with prices advancing, \$22 per ton is being paid in some markets. Prices for almost all other farm products have been on the decline. Wool is only bringing from 12@17c per pound, and sheep and lambs are correspondingly cheaper than they have been for several years. This is so discouraging that many farmers will quit the sheep business. Nearly everyone blames the reciprocity treaty for this state of things.



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MARKETS

DETROIT WHOLESALE MARKETS.

May 3, 1911.
Grains and Seeds.

Wheat.—Farmers interested in the wheat market are pleased with the change made the past few days when prices worked to a higher level and deals continued firm on the new basis with a good outlook for further advances. The crop is good. In most of the wheat producing states the stand seems perfect, and yet the bulls have reported that in certain sections of Kansas and other states the dry weather has so affected fields that they are being plowed up and that in Canada the ground is too dry for good seeding. Europe suffered a heavy decrease in her visible supply, making the total shrinkage for two weeks touch the 6,000,000 bushel mark. The world's visible supply has suffered likewise, all of which has given Liverpool and the markets on the continent good support. Argentine is sending out smaller supplies than usual. The visible supply of the United States decreased 1,712,000 bushels. Opposed to these arguments of the bulls are the splendid crop reports from the large part of the wheat section of the country, the small and dull flour market and the corresponding small demand for cash wheat. One year ago the price for No. 2 red wheat was \$1.10 per bu. Last week's quotations were as follows:

| | No. 2 | No. 1 | Red. | White. | May. | July. |
|-----------|-------|-------|------|--------|------|-------|
| Thursday | 89 | 87½ | 89¾ | 88¾ | 88 | 88½ |
| Friday | 89 | 87½ | 89 | 88½ | 88 | 88½ |
| Saturday | 89½ | 87¾ | 89¾ | 88¾ | 88 | 88½ |
| Monday | 89½ | 88¾ | 89¾ | 88¾ | 88 | 88½ |
| Tuesday | 91 | 89½ | 91 | 89¾ | 88 | 88½ |
| Wednesday | 90½ | 89 | 90½ | 89 | 88 | 88½ |

Corn.—Corresponding advances to those made in wheat circles were recorded in the corn department. The influence of the other grain was perhaps a large influence for higher prices. However, the chartering of lake steamers to carry this grain to eastern points and the general demand were features which ordinarily would support an advancing market. One year ago the price for No. 3 corn was 61½¢ per bu. Quotations for the past week are:

| | No. 3 | No. 3 |
|-----------|-------|---------|
| | Corn. | Yellow. |
| Thursday | 54½ | 55½ |
| Friday | 54½ | 55½ |
| Saturday | 54½ | 55½ |
| Monday | 55 | 56 |
| Tuesday | 55 | 56½ |
| Wednesday | 55 | 57½ |

Oats.—Once more oats followed the opposite direction taken by corn and wheat, the decline in prices for the former grain being about a cent for the week. The local market is steady and quiet. A year ago the price for No. 3 oats was 44¢ per bu. Quotations for the week are:

| | Standard | No. 3 | White. |
|-----------|----------|-------|--------|
| Thursday | 35½ | 35½ | 35½ |
| Friday | 35½ | 35 | 35 |
| Saturday | 35½ | 34½ | 34½ |
| Monday | 35 | 34½ | 34½ |
| Tuesday | 35 | 34½ | 34½ |
| Wednesday | 35 | 34½ | 34½ |

Beans.—Market is continuing along old lines. October options were advanced five cents on Tuesday, while cash and May beans are steady. Nominal prices are:

| | Cash. | Oct. |
|-----------|-------|------|
| Thursday | 1.95 | 1.80 |
| Friday | 1.95 | 1.80 |
| Saturday | 1.95 | 1.80 |
| Monday | 1.95 | 1.80 |
| Tuesday | 1.95 | 1.85 |
| Wednesday | 1.95 | 1.85 |

Clover Seed.—It is about the end of the spring call for clover seed, which accounts for the dullness and inactivity in cash deals and the diverting of attention to the fall options. Prices are steady with a week ago. They are:

| | Prime. | Alsike. |
|-----------|--------|---------|
| Thursday | 9.00 | 8.75 |
| Friday | 9.00 | 8.75 |
| Saturday | 9.00 | 8.75 |
| Monday | 9.00 | 8.75 |
| Tuesday | 9.00 | 8.75 |
| Wednesday | 9.00 | 8.75 |

Rye.—Market unchanged and dull, with quotation at 93¢ per bu. for No. 1.

Timothy Seed.—The demand has advanced the price to \$5.40 per bushel, which is 15¢ above last week's figures.

Flour, Feed, Provisions, Etc.

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

| | |
|-----------------|------|
| Clear | 4.75 |
| Straight | 4.65 |
| Patent Michigan | 4.90 |
| Ordinary Patent | 4.90 |

Hay and Straw.—Another advance was made in hay prices. Straw steady. Quotations on baled hay in car lots f. o. b. Detroit are: No. 1 timothy, \$20; No. 2 timothy, \$18; clover, mixed, \$18; rye straw, \$7; wheat and oats 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.—An ample supply of both new and old tubers bars the way to higher prices. In car lots Michigan potatoes are selling at 45¢ per bushel.

Provisions.—Family pork, \$19@20; mess pork, \$16.50; medium clear, \$18.50@19.50; smoked hams, \$13@14; brisquets, 9½@10c; shoulders, 10½c; picnic hams, 9½c; bacon, 14½@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 murr-

rain, 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.—With the exception of an advance of a half cent for packing stock, butter prices remain steady. The free movement is supported by a good demand. Output is increasing. Quotations are: Extra creamery, 22c; do. firsts, 21c; dairy, 16c; packing stock, 14c per lb.

Eggs.—The liberal consignments of eggs have depressed prices a cent. However, at the lower level the market continues firm and fresh receipts, case count, cases included, are quoted at 16c per doz.

Poultry.—The demand for chickens and other lines of poultry is slow and supply small. Market is steady at former values. Quotations are: Dressed—Turkeys, 16@20c; chickens, 15@16c; hens, 15@16c; ducks, 17@18c; geese, 13@14c per lb. Live—Spring chickens, 15@16c; hens, 15@16c; old roosters, 10@11c; turkeys, 15@18c; geese, 11@12c; ducks, 15@16c per lb.

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

Veal.—Market steady. Fancy, 8c; choice 7c per lb.

Fruits and Vegetables.

Cranberries.—Steady. Quoted at \$4.75 per bu.

Cabbage.—Lower. Selling at \$1.50 per crate.

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

Apples.—The demand is active at advanced prices last week. 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 egg market is firm, dealers paying the trade 16c. Butter, both dairy and creamery, is unchanged. The bean market is slow, white pea bringing \$1.60 and red kidney \$2.75. Red kidneys are in better demand than usual just at this time, probably for seed purposes, and farmers can easily get \$3 for hand-picked stock. The potato market is lower and the movement is light, farmers holding back for another rise. The price paid for tubers is 30@35c, though Greenville and possibly a few other points are quoting at 40c. Dressed hogs are lower, quotations ranging from 7@7½c.

Chicago.

Wheat.—No. 2 red, 92½@94½c; May, 95c; July, 89½c per bu.

Corn.—No. 2, 54½@54½c; May, 53½c; July, 53c per bu.

Oats.—No. 2 white, 33½@34c; May, 32½c; July, 32½c.

Barley.—Malting grades, 90c@1.14 per bu; feeding, 60@80c.

Butter.—The week opened rather unsatisfactorily, offerings being liberal and buyers slow to take hold. This condition has resulted in a decline of 1c on the best grade of creamery; other kinds unchanged. Quotations are: Creameries, 14@21c; dairies, extra, 18c.

Eggs.—The advance noted last week did not hold, prices declining a full cent before the week's close, with a tendency toward weakness. This week buyers are showing more interest; the market has a healthier undertone and is fairly steady at last week's closing figures. Quotations are: Prime firsts, 16c; firsts, 15½c per doz; at mark, cases included, 14@14½c per dozen.

Potatoes.—This market weakened perceptibly with the closing days of last week, prices dropping 3@4c. With receipts so far this week only about half those of the corresponding days last week, prices again moved up on Tuesday and the market is reported steady under a moderately active demand. Choice to fancy are quoted at 56@58c per bu; fair to good, 52@55c.

Beans.—Offerings meeting a fair demand; market is steady and unchanged. Choice hand-picked beans quoted at \$2@2.05 per bu; prime, \$1.90@1.95; red kidneys, \$2.75@3 per bu.

Hay and Straw.—Both hay and straw firm; last week's advanced figures ruling. Quotations: Choice timothy, \$20.50@21.50; No. 1 timothy, \$19@20; No. 2 do. and No. 1 mixed, \$17.50@18.50; No. 3 do. and No. 2 mixed, \$14@16; rye straw, \$8@9; oat straw, \$7@8; wheat straw, \$6@7 per ton.

New York.

Butter.—Steady after a decline of 1c from last week. Creamery specials are quoted at 22½c; extras, 21½c.

Eggs.—Only fairly steady; top grades unchanged; others fractionally lower. Fresh gathered extras, 19c; firsts, 16½@17½c; seconds, 16c; storage packed, firsts 18@18½c.

Poultry.—Dressed, weak. Fowls, 14@16c; turkeys, 13@16c.

Boston.

Wool.—The seat of activity is being transferred from the bins where the old fleeces were kept to the west. Bidders are now in the field and competition for new wool is encouraging better prices over which farmers are taking hope that they may not be required to sacrifice their crop. The mills are taking only what they need for present requirements and brokers do not stand ready to speculate while congress is impatient to revise schedule K. Following are the leading domestic quotations for fleece wools: Ohio and Pennsylvania fleeces—Delaine washed, 30c; XX, 28@29c; fine unmerchantable, 23@24c; ¼-blood combing, 26@27c; ¾-blood combing, 24@25c; ¼-blood combing, 24c; delaine unwashed, 24c; fine unwashed, 18@19c. Michigan, Wisconsin and New York fleeces—Fine unwashed, 17@17½c; delaine unwashed, 23c; ¼-blood

unwashed, 25c. Kentucky, Indiana and Missouri—¾-blood, 25c; ¼-blood, 23c.

Elgin.

Butter.—Market firm at 22c per lb., which is the quotation of last week. Output for the week, 571,300 lbs., as compared with 536,600 lbs. for the previous week.

THE LIVE STOCK MARKETS.

Buffalo.

May 1, 1911.

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

Receipts of stock here today as follows: Cattle, 201 cars; hogs, 16,000; sheep and lambs, 17,000; calves, 2,250.

With 22,000 cattle reported in Chicago and lower, and 201 cars on this market here today, with bad, rainy weather, the market was fully 15@25c per hundred weight lower, and in many instances 35c per cwt. lower. Cattle of all grades are selling lower.

We quote: Best 1,350 to 1,500-lb. steers \$5.90@6.25; good prime 1,200 to 1,300-lb. do., \$5.60@5.85; best 1,100 to 1,200-lb. shipping steers, \$5.25@5.60; medium butcher steers, 1,000 to 1,100 lbs., \$5@5.25; light butcher steers, \$4.50@4.85; best fat cows, \$4.25@5; fair to good do., \$3.25@4; common to medium do., \$3@3.50; trimmers, \$2.50@3; best fat heifers, \$5.25@5.60; good do., \$4.50@5; fair to good do., \$4@4.50; stock heifers, \$4.25@4.50; best feeding steers, dehorned, \$4.80@5; medium to good feeding steers, \$4.50@4.75; stockers, all grades, \$3.75@4; best bulls, \$5@5.25; bologna bulls, \$4@4.65; stock bulls, common to good, \$3.50@4; best milkers and springers, \$5@6; good to best do., \$4@5; common to good do., \$2.50@3.50.

Early reports at all western points showed heavy receipts of hogs, which had a bearish effect on buyers here. Our market opened slow, with the bulk of the mixed and york weights selling 20@25c lower than the close of last week, while pigs showed a decline of about 30c. After the opening, trade ruled fairly active at the prices; hogs were fairly well cleaned up, except a few late arrivals. Medium and heavy hogs sold generally from \$6.10 @6.25, and the mixed grades mostly at \$6.30, and yorkers at \$6.30@6.35. Pigs and lights, \$6.35@6.40. Rough sows sold mostly at \$5.15, with a few odd bunches of extra quality at \$5.25. Stags from \$4 @4.75. Market closing about the same as the opening. Receipts are exceeding all estimates at western points lately, and unless the runs come materially lighter, can not expect any advance in prices.

Lamb market opened active today; most of the choice handy lambs selling at \$5.80@5.85. Look for about steady 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 \$3.50@3.75; wethers, \$4.10@4.25. Look for about steady prices on sheep the balance of the week.

We quote: Best handy lambs, \$5.80@5.85; heavy lambs, \$4.60@4.75; bucks, \$3 @3.50; yearlings, \$4.50@4.75; wethers, \$4 @4.25; ewes, \$3.50@3.75; cull sheep, \$1.50 @3; veals, choice to extra, \$6.25@6.50; fair to good do., \$5.25@6; heavy calves, \$3.50@4.50.

Chicago.

May 1, 1911.

Cattle. Hogs. Sheep.
Received today22,000 65,000 21,000
Same day last year..24,987 29,949 18,268
Received last week..47,980 146,470 72,635
Same week last year..54,714 63,333 48,702

A better market for cattle than has been experienced for cattle for some weeks past was witnessed today, prices ruling mostly steady, with a fair general demand, and butcher stock sold especially well, some sellers reporting sales a little better than last week. The late market last week was 10@15c lower than a week earlier, stockers and feeders included, and the week's sales of beef cattle were the lowest seen in three years. Calves had a break of \$1 per 100 lbs., the best going at \$5.75 at the close. Hogs sold off 10@15c last week under greatly increased receipts, and there was a further decline of 15c today, the receipts being simply enormous. Such supplies cannot fail to make much lower prices, and a warning is sounded to country shippers to beware of the Monday market. Hogs are coming heavier in weight than ever, the average weight last week being 246 lbs., compared with 241 lbs. a week earlier, 227 lbs. a year ago and 215 lbs. two years ago. Hogs are selling at \$5.50 @6.12½, largely around \$5.85@5.95, with light bacon hogs and pigs market toppers still. The eastern shipping demand does not improve correspondingly with the supply, shipments from here last week being 32,280 hogs, compared with 23,817 a week earlier. Sheep and lambs were largely 10@15c lower the past week, but the market was mainly steady today, with clipped consignments selling as follows: Lambs, \$4.50@5.50; wethers, \$3.65 @4.15; ewes, \$3.25@4; yearlings, \$4.25@4.60. Colorado woolled lambs have been selling at \$5.50@6.15, with one recent sale at \$6.30.

Cattle are distributed over the week much too unevenly for the best interests of sellers, resulting in wild fluctuations that should be avoided. Monday is nearly always the big day of the week, half or more of the week's receipts showing up then, as was the case last week, forcing a decline on that day of 10@25c all along the line. There were some rallies later in the week, as the early bad break caused owners to send in smaller supplies, but after all it was a mighty unsatisfactory market for sellers, prices being the lowest recorded in three years. The big end of the steers sold well below \$6, the bulk of the sales being around \$5.35@6.10, and buyers showed quite a partiality for the \$5.50@5.90 class of handy-weights. Export steers were sal-

able at \$5.40@5.85, and sales were made of good to prime yearlings at \$5.75@6.30. The commoner class of light steers sold for \$4.85@5.25, and the choicest heavy beefs brought \$6@6.45, good killers selling as low as \$5.80. A great change has taken place within the last four or five weeks, steers having sold at that time at \$5.15@7.05; largely at \$5.75@6.50. Butcher stock has had its full share in the decline, cows and heifers selling at \$3.30@5.90, while cutters sold at \$2.75@3.25, canners at \$2.25@2.70 and bulls at \$3.40@5.40. Calves, too, are greatly reduced in prices, selling at \$3@6 per 100 lbs., while milkers and springers had a moderate outlet at \$3@6½, fresh cows being chiefly wanted and some of the plain grade backward cows having to go to killers. The great decline that has taken place in prices for beef cattle of all descriptions has made a bad market for stockers and feeders, these being materially lower and much less active than not long ago. Stockers are selling at \$4@5.50 and feeders at \$4.75@5.60, while stocker and feeder heifers are in moderate request at \$3.40@4.40. Conditions are now such that cattle feeders should send in stock cautiously, studying the market reports with great care, for the consumption of beef is much curtailed by its dearthness and the great cheapness of eggs, while fresh pork and mutton have declined much more in price than beef.

Hogs have been greatly lowered in prices since the downward movement began months ago, and stock feeders are a good deal disappointed, the drop having been carried much further than most people had expected. Aside from the fall in prices, the principal change noticed recently is the marked narrowing in the spread in prices between the most and the least desirable offerings. The better class of light bacon hogs and pigs are still market toppers daily, but the extremely heavy packing hogs are not going at as large a discount as they did several weeks ago, and there is a relatively better market for medium weights. Monday continues to be the day of especially large receipts, these being out of all proportion to those seen on other days, and this tends to make bad prices on the opening of each week, a "run" of 51,591 hogs on Monday of last week bringing about a drop of 15@20c in ruling prices. Caution is necessary on the part of owners of hogs for the future, and they should make a careful study of market conditions before shipping, remembering that Monday is likely to be a bad day for selling hogs. A great many hogs are left in the country, and it is the easiest thing in the world to upset prices, which are already much lower than in most recent years.

Sheep and lambs have been in a very uncertain condition of late, with the demand and ruling prices fixed largely by reports received from the Missouri river markets and the reports from Buffalo and other eastern markets. Killers have been quick to take advantage of any opportunity afforded to load up on reduced rates, and even at such times as the best consignments sold satisfactorily, other lots were apt to rule weak and lower. While Colorado stock made up a liberal share of the offerings, nearly all the corn belt feeding sections contributed generously also, nearly everything from the latter source coming shorn, while woolled lambs made up a big share of the Colorado-Mexican offerings. The demand has centered, as usual, on fat, handy weights, which were market toppers, while heavy weights were hard sellers at liberal concessions in prices. All descriptions of sheep and lambs have suffered big reductions in recent weeks and are selling greatly below the prices paid in recent years. There is a persistent demand for shearing and feeding lambs, with extremely few offered.

Horses have been in very good local and shipping demand recently, with the most activity on Wednesday, and prices were firmer that day. The receipts are well maintained at the recent standard and are on a much larger scale than a year ago, when the market was much less active than it has been this spring. Horses sell wide apart, going anywhere from \$50@100 per head for the poorer animals and at \$250@340 for the better class, with drivers selling chiefly around \$125@175 and a few at \$200 and over. Desirable drafters are taken at \$200@250, while a sale is made now and then at \$300@320, and well-matched pairs are bringing \$400@600. The offerings run largely to medium grade horses, with not enough farm mares.

LIVE STOCK NOTES.

Nebraska and Kansas are reported to have a good many heavy steers, owners in numerous instances having held on longer than usual in the hope of better markets.

A recent sale was made in Texas of a drove of over 600 head of two-year-old steers at \$26.50 per head. Numerous deals of this kind have been made, but prices are usually private.

A central Illinois stock feeder of long experience says he finds it pays well to convert his ear corn into ground corn, grinding cob and all. He finds that 100 lbs. of ground corn with the cob for the first 60 days is worth as much as 100 lbs. of clear shell corn for feeding cattle. With ground corn and cob cattle need very little roughness, and he has handled many cattle in this way without other roughness.

Thousands of calves that should be retained on farms to be matured as beef cattle are being marketed this spring, and this is bound to tell on the future beef supply of the country. For a long time the veal market was exceedingly animated, choice veals commanding high prices, but recently the veal trade has been very dull, and even the best calves have suffered big declines from former prices.

THIS IS THE FIRST 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.

April 27, 1911.

Cattle.

Receipts, 1,090. Market steady at Wednesday's prices and last week's close. Common grades strong.

We quote: Best steers and heifers \$5.75@6; steers and heifers, 1,000 to 1,200, \$5@5.50; steers and heifers, 800 to 1,000, \$5@5.35; grass steers and heifers that art fat, 800 to 1,000, \$5@5.35; steers and heifers that are fat, 500 to 700, \$4.50@5; choice fat cows, \$4.50@5; good fat cows, \$4@4.50; common cows, \$3@3.50; canners, \$2.50@3; choice heavy bulls, \$4.75@5; fair to good bolognas, bulls, \$4.25@4.50; stock bulls, \$3.75@4; choice feeding steers, 800 to 1,000, \$4.50@5; fair feeding steers, 800 to 1,000, \$3.75@4.25; choice stockers, 500 to 700, \$4.25@4.75; fair stockers, 500 to 700, \$3.50@4; stock heifers, \$3.25@3.75; milkers, large, young, medium age, \$4@50; common milkers, \$25@35.

Roe Com. Co. sold Rattowsky 2 cows av 1,005 at \$3.75; to Regan 5 butchers av 712 at \$4.55; to Kamman B. Co. 2 steers av 1,045 at \$5.25; to Parker, W. & Co. 27 do av 862 at \$5.25, 15 do av 1,230 at \$5.65, 1 cow weighing 1,100 at \$4.25; to Cooke 22 steers av 1,033 at \$5.55; to Mich. B. Co. 9 cows av 900 at \$4, 6 butchers av 746 at \$5, 15 do av 733 at \$5; to Fish, S. Co. 1 cow weighing 960 at \$3.50; to Rattowsky 2 do av 910 at \$4.20; to Parker, W. & Co. 3 do av 1,080 at \$4.50, 1 do weighing 1,020 at \$4.50, 10 steers av 953 at \$5.50; to Thompson Bros. 10 cows av 1,020 at \$4.25, 2 do av 935 at \$3; to Parsons 16 steers av 800 at \$5.75; to Kamman 10 do av 925 at \$5.25; to Parker, W. & Co. 3 cows av 1,016 at \$4.50.

Bishop, B. & H. sold Bresnahan, Jr., 1 bull weighing 760 at \$4, 1 heifer weighing 870 at \$5, 2 do av 655 at \$5, 11 steers av 653 at \$4.40; to Parker, W. & Co. 4 bulls av 1,245 at \$4.50, 6 cows av 1,055 at \$4, 3 do av 950 at \$4, 1 canner weighing 730 at \$3, 1 heifer weighing 600 at \$5, 5 cows av 1,032 at \$4, 2 do av 950 at \$3.75; to Newton B. Co. 14 steers av 1,180 at \$5.65, 10 do av 920 at \$5.35, 23 do av 811 at \$5.15; to Hammond, S. & Co. 4 do av 1,057 at \$5.50, 2 cows av 990 at \$4.25; to Goose 2 do av 585 at \$3.60; to Mich. B. Co. 12 butchers av 900 at \$5.30; to Parker, W. & Co. 2 bulls av 940 at \$4.50, 3 cows av 1,003 at \$4, 2 do av 850 at \$3.25, 3 do av 1,000 at \$4.50, 7 steers av 591 at \$4.75, 2 do av 850 at \$5.50, 1 bull weighing 880 at \$4.50, 14 steers av 970 at \$5.50, 1 bull weighing 2,140 at \$5, 1 do weighing 1,580 at \$5, 1 do weighing 1,120 at \$4.50; to Sullivan P. Co. 21 steers av 1,020 at \$5.55, 20 do av 1,080 at \$5.55, 1 cow weighing 1,430 at \$5, 2 do av 1,170 at \$3.50; to Thompson Bros. 4 do av 1,070 at \$4.25, 11 steers av 1,115 at \$5.60, 3 cows av 853 at \$3, 3 butchers av 777 at \$4.75, 1 cow weighing 1,020 at \$4; to Newton B. Co. 3 steers av 1,066 at \$5.60, 1 cow weighing 1,130 at \$4.50, 1 do weighing 1,100 at \$4; to Regan 3 steers av 647 at \$4.75; to Fromm 1 bull weighing 750 at \$4, 3 cows av 933 at \$5.10; to Goose 4 cows av 920 at \$3.25.

Spicer & R. sold Bresnahan 3 heifers av 623 at \$4.10; to Newton B. Co. 10 butchers av 874 at \$5.10, 24 do av 900 at \$5.10, 1 cow weighing 590 at \$2; to Rattowsky 1 bull weighing 620 at \$4; to Parker, W. & Co. 4 butchers av 565 at \$4, 1 bull weighing 1,330 at \$4.75, 1 do weighing 1,590 at \$4.75, 2 do av 1,290 at \$4.65, 3 cows av 834 at \$3, 1 do weighing 800 at \$3.25; to Kamman, 2 do av 935 at \$4, 4 heifers av 540 at \$4.50, 5 cows av 1,000 at \$4.

Haley & M. sold Hammond, S. Co. 11 steers av 809 at \$4.65, 1 do weighing 1,010 at \$6.25, 1 bull weighing 1,090 at \$4.35; to Sullivan P. Co. 10 steers av 972 at \$5.40; to Schlischer 16 do av 814 at \$5.20, 1 do weighing 480 at \$4.50; to Rattowsky 3 butchers av 990 at \$4.65, 2 cows av 1,110 at \$3.75.

Youngs sold Parker, W. & Co. 5 steers av 976 at \$5.25.

Stephens sold Sullivan P. Co. 4 steers av 592 at \$5.45.

Axtel sold same 5 butchers av 770 at \$5, 10 steers av 972 at \$5.50.

Peiheimer sold Kamman 4 butchers av 582 at \$4.35.

Veal Calves.

Receipts, 1,262. Market steady with Wednesday and last week's close. Best, \$5.75@6; others, \$4@5.50; milch ows and springers steady.

Roe Com. Co. sold Newton B. Co. 2 av 150 at \$6, 2 av 110 at \$5; to Goose 15 av 120 at \$4.50; to Hammond, S. & Co. 41 av 130 at \$5.65.

Haley & M. sold Goose 49 av 135 at \$5.50; to Barlage 10 av 131 at \$4, 51 av 125 at \$5.65.

Spicer & R. sold Sullivan P. Co. 11 av 130 at \$5.75, 38 av 140 at \$5.50; to Rattowsky 12 av 135 at \$5.50; to Nagle P. Co. 6 av 150 at \$4.25, 19 av 160 at \$3.60; to Burnstine 9 av 150 at \$5.50.

Lewis sold Newton B. Co. 4 av 155 at \$5.50.

Stephens sold same 15 av 130 at \$5.50. Waterman sold Burnstine 18 av 135 at \$5.10.

Robb sold same 6 av 150 at \$5.50.

Bishop, B. & H. sold Hammond, S. & Co. 9 av 140 at \$6.25; to Sullivan P. Co. 15 av 110 at \$4.50; to Parker, W. & Co. 32 av 125 at \$5.50, 29 av 135 at \$5.50, 22 av 140 at \$5.50; to Goose 5 av 145 at \$5.50, 4 av 125 at \$5.50, 6 av 130 at \$5.50.

3 av 135 at \$4; to Hammond, S. & Co. 4 av 115 at \$4, 6 av 155 at \$5.75; to Sullivan P. Co. 31 av 125 at \$5.60, 6 av 105 at \$4.50.

Sheep and Lambs.

Receipts, 3,144. Market steady at last week's close and Wednesday. Heavy grades dull. Best lambs, \$5.10@5.15; fair to good lambs, \$4.50@5; light to common lambs, \$3.75@4.25; fair to good sheep, \$3@3.75; culls and common, \$2.50@3.

Bishop, B. & H. sold Parker, W. & Co. 216 lambs av 83 at \$5; to Breitenbeck 17 sheep av 70 at \$3.90, 27 lambs av 75 at \$4.50; to Sullivan P. Co. 35 do av 90 at \$4.65; to Parker, W. & Co. 18 wool lambs av 88 at \$5.25; to Street 253 lambs av 83 at \$4.70; to Mich. B. Co. 14 do av 80 at \$4.85; to Young 17 lambs av 80 at \$5, 7 spring lambs av 48 at \$5.50; to Hammond, S. & Co. 29 lambs av 80 at \$5; to Fitzpatrick Bros. 26 do av 65 at \$4.50; to Sullivan P. Co. 163 do av 80 at \$5.10; to Thompson Bros. 52 do av 75 at \$5.10; to Nagle P. Co. 187 wool lambs av 70 at \$5.75; to Newton B. Co. 117 lambs av 85 at \$5.10; to Fitzpatrick Bros. 88 do av 110 at \$4.50.

Haley & M. sold Newton B. Co. 12 lambs av 55 at \$4, 44 do av 70 at \$5; to Breitenbeck 37 do av 70 at \$4.60.

Spicer & R. sold Sullivan P. Co. 7 spring lambs av 52 at \$8, 5 lambs av 95 at \$5; to Mich. B. Co. 15 do av 110 at \$4.75, 101 do av 82 at \$5.10, 17 sheep av 80 at \$4.25; to Sullivan P. Co. 43 lambs av 75 at \$5.15; to Young 10 sheep av 80 at \$4.

Roe Com. Co. sold Barlage 11 sheep av 80 at \$3.50; to Mich. B. Co. 70 lambs av 80 at \$5.15.

Morton sold Hammond, S. & Co. 5 lambs av 80 at \$5.75, 7 sheep av 140 at \$4.

Bergen & W. sold same 30 lambs av 82 at \$5.

Dancer & K. sold same 68 do av 85 at \$4.75.

Stephens sold Newton B. Co. 75 lambs av 80 at \$5.

Lewis sold Mich. B. Co. 55 wool lambs av 78 at \$6.25.

Holcomb sold same 56 lambs av 85 at \$5.10, 59 do av 90 at \$5.

Hogs.

Receipts, 5,570. Market steady with last Thursday; trifle higher than on Wednesday.

Range of prices: Light to good butchers, \$6.20@6.25; pigs, \$6.25; light yorkers, \$6.20@6.25; heavy, \$5.90@6.

Roe Com. Co. sold Sullivan P. Co. 425 av 190 at \$6.25.

Sundry shippers sold same 275 av 150 at \$6.25.

Spicer & R. sold Parker, W. & Co. 450 av 190 at \$6.25.

Haley & M. sold same 415 av 180 at \$6.25.

Sundry shippers sold same 675 av 185 at \$6.25.

Bishop, B. & H. sold Hammond, S. & Co. 2,450 av 170 at \$6.25, 180 av 160 at \$6.30.

Friday's Market.

April 28, 1911.

Cattle.

Receipts this week, 1,187; last week, 1,397. The market opened with a light run on sale in all departments. The cattle trade was dull, but prices paid were steady with those of Thursday for all grades. Milch cows and springers were also steady.

We quote: Best steers and heifers, \$5.60; steers and heifers, 1,000 to 1,200, \$5.25@5.50; steers and heifers, 800 to 1,000, \$5@5.25; steers and heifers that are fat, 500 to 700, \$4.50@5; choice fat cows, \$4.50@4.75; good fat cows, \$4@4.50; common cows, \$3@3.50; canners, \$2.50@3; choice heavy bulls, \$4.75@5; fair to good bolognas, \$3.75@4.50; stock bulls, \$3.25@3.75; choice feeding steers, 800 to 1,000, \$4.50@5; fair feeding steers, 800 to 1,000, \$3.75@4.25; choice stockers, 500 to 700, \$3.50@4; fair stockers, 500 to 700, \$3.50@4; stock heifers, \$3.25@3.50; milkers, large, young, medium age, \$4@50; common milkers, \$25@35.

Veal Calves.

Receipts this week, 1,464; last week, 1,577. Trade was dull at a decline of 25c to 50c from the close on Thursday. Bulk of sales for good grades were at \$5.50. Best, \$5@5.50; others, \$3.75@5.

Sheep and Lambs.

Receipts this week, 3,251; last week, 3,158. There was hardly sheep and lambs enough on sale to establish a market, but the few offering were sold early at Thursday's prices. Woolled lambs of all kinds are very hard to sell and should not be sent to market at present.

We quote: Best lambs, \$5.10; fair to good lambs, \$4.50@5; light to common lambs, \$3.75@4.25; fair to good sheep, \$3@3.75; culls and common, \$2.50@3.

Hogs.

Receipts this week, 6,628; last week, 8,629. The hog trade was steady with Thursday, a few of the best bringing \$6.30, but bulk of sales were at \$6.25.

Range of prices: Light to good butchers, \$6.25@6.30; pigs, \$6.25@6.30; light yorkers, \$6.25; heavy, \$6@6.10.

LIVE STOCK NOTES.

A large cattleman in southwestern Texas recently placed about 8,000 steers on grass, the prospects for summer pasturage being the best in a long period.

Fall litters of pigs are exceptional in the wide territory tributary to the Missouri river markets, but they are fast becoming the rule in various western sections that ship hogs to the Chicago market, something extremely rare about ten years ago. The marked change in this respect causes packers at Chicago to expect liberal marketings of these matured pigs along in June and July. The winter was exceptionally mild, and corn was so plentiful and cheap everywhere that stockmen fed their pigs liberally, and deaths were few and gains unusually

large. It is now reported that these October born pigs weigh about 20 lbs. more than they have averaged at this time in former years.

Western range grasses make fat cattle, hogs and sheep, without the aid of corn. This fact was well demonstrated at the recent western stock shows, where fat stock of all classes was exhibited that never saw corn.

These are times when cattle feeders should weigh the subject carefully before venturing to buy stockers and feeders, and some of the most experienced stock feeders are buying the cheaper class of these cattle, not the poorest, but those of a middling kind. They argue that it is safer to make a medium grade of beef these times than to go in for making high-grade beef, and the business of fattening cattle will be greatly changed unless conditions change radically. There have been reductions in prices for stockers and feeders, but the better lots have not sold off anywhere near as much as they should to place them in a parity with finished beefs. This is largely due to their scarcity and to the common practice of packers bidding for feeders carrying a moderate amount of flesh.

Cattlemen of that region have purchased 9,000 cows and 800 bulls from the Nelson Morris ranch in Texas near Midland.

A good many cattle are being fed in the district around Peoria, Illinois. They are in exceptionally good condition, and many are ready to come to market in the near future.

VETERINARY.

(Continued from page 514).

Diseased Scalp—Wind Galls.—What would you advise me to apply to mane and tail in order to increase the growth of hair? I would also like to get a remedy for wind puffs. W. J. B., Chelsea, Mich.—Apply one part kerosene and four parts vaseline to scalp once a day. Apply one part red iodine mercury and six parts cerate of cantharides to wind puffs every ten days—this will blister them.

Cracked Heels.—I have a two-year-old heifer whose forward feet and legs are swollen and a yellowish watery fluid comes through the skin. Her toes are festered; there are also bunches under skin on both sides of neck. Am feeding clover hay, mash made of corn meal, sugar beet pulp and cottonseed meal. Now I would like to know what is wrong. C. E. M., Morley, Mich.—Dissolve 1/4 lb. sugar of lead, 1/2 oz. tannic acid in 1/2 gal. of boiled water and apply to sore heels three times a day and apply iodine ointment to bunches on neck once a day.

Enlarged Gland.—My heifer has a large loose bunch in throat that I have failed to reduce and I would like to have you prescribe a remedy. This bunch does not appear to affect her health in any way. O. E. C., Shelby, Mich.—Apply one part red iodine mercury and eight parts lard every two or three days and give 1 dr. iodide of potassium at a dose in feed two or three times a day.

Exercising Brood Sows.—I had four brood sows a short time ago and three of them died while farrowing. I am anxious to save the other one, and come to you for advice. D. P. R., Empire, Mich.—Your sows were perhaps too fleshy, had too little exercise before farrowing, and perhaps their bowels were constive. The remaining sow should not be overfed, but obliged to exercise considerably every day. As a rule, it is not a good plan to interfere with sows while farrowing, but of course they should be in a healthy condition when they farrow.

Partial Loss of Power.—I would like to know what can be done for a pig that seems to have lost the use of her hind legs; she moves about some, but with great difficulty. W. D. O., Lakeview, Mich.—Feed oats, oil meal, but no corn; also feed some roots and give her some air-slaked lime with each meal. Also apply mustard and water to loin three times a week.

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THE DAIRY

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THE VALUE OF TESTING.

There are a great many men who pretend to be dairymen who speak with pride of the number of cows that they milk. They may milk thirty cows, yet another man only milks half that number and carries as much or more milk from his barn. Go into the barn of the man who milks the large herd of cows and express any surprise at the small amount of milk and the owner will begin to apologize by saying that grass is rather short, this cow is just a heifer, that one was fresh in the winter and is now nearly dry, the red cow never was a very good milker, and so on through the entire herd. There are usually several cows that he really intended to dispose of last year but he hated to see them go. After going over the entire herd we find that he only has four or five cows that are good milkers. The others are not producing enough to pay for their keep. We find things quite different over at the barn of the man who owns the small herd and is making money. His cows are every one good milkers. He don't keep poor ones. Each cow must produce a full pail of milk or she is sold. The owner of that herd knows that full pail cows are scarce and when he hears of one he endeavors to buy her. He makes the dairying business pay because he knows that it is the full milk pail that counts. Every herd of dairy cows should be tested by their owner and if the test is to be of any value it must be a test of each individual animal. That will show just what each cow is doing in the way of paying for her keep. Those that fall below a certain point as milkers and butter producers should be disposed of at once and their places filled by good ones. If good cows cannot be had at that time let their places remain unfilled. Every heifer calf should be carefully reared and, when it becomes a cow, tested and kept or sold just as the test may decide. By a careful plan of testing and elimination it is possible to raise the average production of the herd and just think what that would mean. If you could raise the average production of butter per head of your herd one pound per week a goodly sum would be added to your income in the course of a year. Every dairyman should ask himself just how much each of his cows is producing. If he does not know it is time for him to get busy and make a test. There are too many people who just "keep cows." They think that testing savors too much of the man with the white shirt who reads the farm papers and has a store of book knowledge. They haven't time to make a test but must hurry through with their work so as to get a supply of hay sufficient to feed their cows through the winter and two-thirds of those cows may not produce enough to pay for what they eat.

A good dairy herd is a profitable thing to own if the milk product is properly taken care of and used. It must be kept in mind, however, that merely owning cows is not the whole business. If the cows do not give enough milk and if it is not rich enough in butter-fat the herd cannot pay a profit.

Ohio. S. C.

THE CREAM SEPARATOR AND ITS CARE.

It is easy to reduce the crop producing power of land by the improper use of the plow and yet we continue to use the plow by seeking to inform ourselves as to the best time to break the land, the right depth to go for the crop to be planted, etc., rather than to cast the implement aside. The plow has been found to be an economical implement. The spade would ruin the land also if used in clay when wet.

It is likewise possible to spoil cream through the use of a separator if that intelligence that is required to properly handle the plow, or the reaper, or the horse rake, or any other ordinary farm tool, is lacking. It is just as possible to spoil cream by holding it in improperly washed milk pans or other receptacles. The quality of the cream is dependent upon the cleanliness of the conditions surrounding it after taken from the cow's udder, the same as the condition of the soil at the time of plowing determines how well it can be fitted afterward. A reasonable amount of intelligence regard-

ing the simple laws of sanitation coupled with a reasonable amount of care in their execution is the important factor in producing good cream as well as in every other ordinary operation in our daily tasks and living.

The number of persons who are delivering poor cream is certainly becoming smaller in proportion to the whole number who are using the separator, through the result of example and experience, since the person who gives careful attention to details of handling milk and cream before and after being separated, is getting profits that the careless person cannot claim. Men have long learned that it is not the separator but themselves that is at fault where the cream grades low. The value of the separator, like the plow, is too well known to be disputed. The saving of cream, the conserving of time in caring for milk utensils even where the most perfect care is given the separator, the benefits from feeding fresh skim-milk, the lightening of burdens in the kitchen and other advantages have been so securely lodged in the minds of farmers as to prevent any retroactive movement that will restore the milk pan, the milk cabinet, the lobbared swill, together with the attendant work demanded by former methods to our households again. The separator has been tried; it has passed through the fire of experience and stands today as another example of American progress and enterprise, removing from thousands of American farms the drudgery of caring for that universal food of the race, milk.

We are beyond the stage where we ask, why use a separator? But we need to exercise a little more caution as to how the separator should be used, and in this connection the detailed suggestions of the Illinois Experiment Station as given in circular No. 148 will serve a very helpful end by instructing the layman who may not understand, or who may be careless, as to just how and what he should do to grade up his cream so that higher values may be secured:

Too many producers wash their machines but once a day; and some but once in two days; the result is, especially during hot weather, a poor grade of cream. The bowl, as well as all tinware should be washed every time it is used, and once a day preferably in water containing a little sal soda or washing powder. Soap should never be used in washing milk utensils because it will taint the milk. If possible the bowl and all tinware should be scalded in hot water at least once a day, and immediately put in the sun, or on a stove to dry. This prevents rusting. Rusting renders the bowl and milk utensils much more difficult to wash and keep clean. The bowl, if washed after each using, will cleanse easily, in less time, skim more thoroughly, give a more uniform cream, and last longer. To operate a separator successfully, the following points should be carefully observed:

1. Clean all parts thoroughly before setting up.
2. Fasten the frame to a solid foundation (preferably planks embedded in concrete).
3. Set the frame level and keep it level.
4. Oil all gearing and spindle every time before starting.
5. Flush all gearing and bearings with kerosene once or twice a month; then oil well. If this is practiced, the machine will run more easily and the gearing last longer.
6. Prevent dust and grit from entering the bearings of the machine.
7. Run the machine at the proper speed (usually marked on handles).
8. Use a watch in timing speed. Do not guess at it.
9. Do not start the milk through the bowl until the required speed has been reached.
10. Warm the bowl and fill with hot water just before starting during cold weather, especially if the machine is kept in a cold place. It may prevent the cream from sticking in the bowl.
11. Flush the bowl with warm water or warm skim-milk.
12. Wash the bowl immediately after it has been used.
13. Dry the parts of the bowl when washed by placing on a fairly warm stove, or if possible hang in the sun all day. Keeping them dry prevents rusting and the sun acts as a germicide.
14. Be sure to keep the skim-milk outlets open; if they are not properly cleaned, the test will go down.
15. Set the cream screw so that it will deliver from 28 to 35 per cent cream dur-

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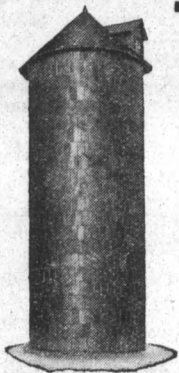
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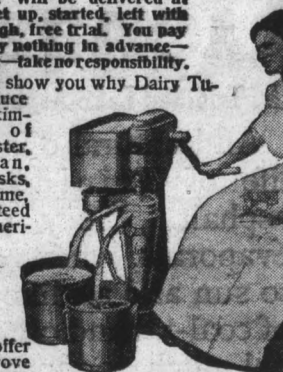
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ing the winter and from 33 to 45 per cent during summer; or if a 3.8 per cent milk is skimmed, have the machine deliver 11 to 14 pounds of cream per 100 pounds of milk during winter and from 8.5 to 10.5 pounds of cream during summer.

16. Separating milk in an unwashed bowl that has been standing for several hours is "a filthy practice."

EQUIPMENT FOR A CREAMERY.

We are building a brick creamery 45x24 feet. We would like to have you or some one who knows, give a complete list of the machinery required to make an up-to-date creamery. Which is preferable, the pumping or the gravity system of handling the milk? Give the estimated cost of the different pieces of machinery. Leelanau Co. C. A. N.

While it is not stated whether this equipment is for a whole milk plant or a gathered cream plant, I take it for granted that it is for the latter because it is a rare thing today to build a creamery equipped for handling whole milk. In other words, the whole milk creamery is getting to be a thing of the past and everything now tends towards the gathered creamery plant. Neither is there anything said as to the capacity of the equipment. I am therefore figuring on using a 900 lb. churn and making the equipment sufficient to handle this capacity; that is, if you have a 900 lb. churn, then you want a receiving vat and a ripener of sufficient capacity so that they will hold one full churning if necessary.

Our creamery company has just been equipping a branch in Grand Rapids so I can speak on the subject of equipping a creamery plant from experience. For an up-to-date plant you will want practically the following equipment. First, a 300 gal. receiving vat, price \$45. Second, a ripener, 2,500 lbs. capacity, with cooling coil, for \$375. Third, a 300 gal. ripener which will cost about \$350. Fourth, a 900 lb. churn, \$240. Fifth, a 15 horsepower boiler and a 10 horsepower engine, which will cost in the neighborhood of \$325. Sixth, a Babcock tester, 36 bottles, \$35. Seventh, a set of platform scales for weighing in the cream, two beam scales, \$27. Eighth, a set of Torsion balances for weighing the cream samples, \$18. Ninth, one cream pump, \$65. Tenth, Sample bottles, test bottles, acid, etc., \$25. Eleventh, piping shafting, belts, pulleys, etc., \$200. Twelfth, a refrigerator made of cork board which will cost in the neighborhood of \$300. So you have the complete up-to-date equipment of a modern gathered cream creamery for practically \$2,000.

I have put in only one pump, and, of course, if the creamery is located just right on a side hill so that there is plenty of chance for the gravity system, one can get along without a pump at all, but most locations will not admit of a complete gravity system. C. A. N. asks the question, "Which is best, the gravity system or to pump the cream?" There is no doubt that the gravity system is better where it can be used, but as I say, it is seldom that one can get a location where you can use exclusively the gravity system. With the modern milk and cream pump one can get along very nicely without the gravity system; but it goes without saying that if you can so construct your creamery that the cream is weighed in and dumped into the receiving vat and then run by gravity from the cream vat to the pasteurizer, then from the cooling coils of the pasteurizer to the ripener and then from the ripener to the churn, all running down hill, the handling of the milk is very much simplified.

Even with a level floor for the entire creamery I would elevate the pasteurizer so that the cream would run from the cooling coils into the ripener. Then you can pump the cream from the receiving vat into the pasteurizer and let it run back into the ripener. Now, if you can lower your churn so it will run from the ripener to the churn, well and good. If not, in this instance you will not have to use a pump, but you can by a steam siphon force the cream from the ripener into the churn with very little difficulty. Where one can install a complete gravity system it is much easier to keep everything clean. A pump has to be taken apart and carefully cleaned which, of course, adds to the work and expense. That is the principal objection but is not a serious one. It is easier, however, to clean and keep clean an open trough through which the cream runs than it is a pump and a pipe through which the milk must go when a pump is used.

Besides the above you will also need about 100 milk cans.

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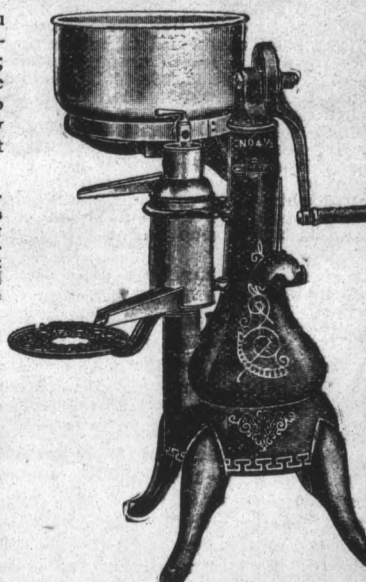
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HORTICULTURE

METHOD OF CULTIVATING ORCHARD.

Will you please tell me what experiments have been conducted in cultivating alternate rows in a peach orchard, seeding the other rows to clover to be plowed under the following year, changing this the following season and seeding the rows which were cultivated the previous season. It seems to me that this way gives more humus and nitrogen into the soil than by cover crops. However, I have my doubts as to whether this would be sufficient cultivation for a peach orchard and that the crop might suffer.

Benzie Co.

R. M.

While some work has been done along the line suggested in R. M.'s letter, we have at hand no data to indicate the comparative value of plowing up alternate spaces between the trees and cultivating the entire surface. We have heard testimony from successful growers who contend (without having at hand definite figures to support their ground but who have arrived at the conclusion from general observation) that they prefer the practice of plowing alternate spaces to the cultivation of all the ground and devoting the last months of the summer and fall to growing a cover crop for furnishing humus and nitrogen where needed. But while there is one who commends the "alternate" practice there are perhaps twenty who swear by the thorough cultivation policy. The more recent introduction of the "alternate" practice may, however, account for this difference in the number of advocates and for this reason we cannot denounce without first having proper proofs to sustain such a procedure. For the benefit of R. M. and others, we ask those who have practiced the method suggested by him to write *The Farmer* telling what results followed. It is certain that the present practice of cultivating orchards which is being rapidly extended will make such a discussion of interest to a large number of readers.

ON GROWING CELERY.

Please give instructions on how to grow celery.

Ohio.

S. K. G.

This plant demands liberal quantities of plant food and moisture, and flourishes in a cool location, hence a rich, cool, moist soil is best adapted to its production. Lowlands are therefore usually employed as they contain fertility washed from higher levels and are supplied with moisture from the same source. But on uplands a fine quality of celery may be grown by enriching the land to a high degree and conserving moisture by careful tillage or irrigation. For home use celery may be grown in any well-tilled and rich garden soil.

The crop must be transplanted. Celery seeds germinate slowly and hence must be started some time before the plants are to be established in the garden or field. They should be transplanted two or three times to make them stocky. Cut back tops a third or half when transplanting. For home use the early crop may be planted as soon as the ground is ready to receive the plants, but usually there is little commercial demand for early grown celery and so the large growers do not put in their plants till after some quick growing crop like early cabbage, has been removed. Marshes are usually wet by spring freshets and cannot be gotten in shape for the crop till early in the summer months. Plants should be from four to six inches high when taken to the garden or field, and should be planted from eight to 12 inches apart in rows which are from two to four feet apart, depending upon the method of blanching employed; where boards are used the distance may be two feet, but with dirt, four feet will be required.

Start the cultivator immediately after planting and keep it going to retain moisture for the crop will need large amounts to properly assimilate plant food during the latter period of the growing season. The hoe should be used between the plants in the rows.

Celery must be bleached. This can be done in the field or in storage. The summer and fall crop must be bleached in the field, while the winter supply may be cared for in storage. To accomplish this in the open, stand boards along each side of the rows, crowd them closely and secure them with stakes. The boards

should be ten inches or a foot wide. The rows need to be hilled up a little which can be done with the "hillers" on the cultivator. Remove broken or injured leaves, especially those that show any tendency to decay for they will infect others as the decomposition goes on.

A better method for blanching, when quality of crop is concerned, is to mound earth around the plants so that only the tips of the leaves project. Regular hillers are on the market for this purpose and are employed by large growers. Where done with a shovel or spade one party should gather the leaves of each individual plant in his hands and hold them together while two others throw the earth from either side until it is piled to the proper height. The work should be done on the installment plan to insure best results.

Where but a few plants are grown a practical way to blanch is to invert a drain tile over each plant. The stems are kept clean and the light excluded perfectly.

AMOUNT OF ASHES TO USE.

Could you tell me how much fresh leached ashes should be put on land for a crop of onions, cabbage, etc.?

Presque Isle Co.

A. C. O'R.

The amount of ashes required for onions, cabbages, etc., would depend first, upon the condition of the ground before the ashes are added. Since ashes are rich in potash and phosphoric acid they can be applied liberally where these two elements are lacking but would be useless if these elements were present in sufficient amount to give a maximum of growth. Then, too, the quality of the ashes would determine in part what amount should be added as hard wood ashes contain a greater per cent of the above mentioned elements than soft wood ashes. Coal ashes are valueless except that upon clay soils they aid in conditioning the land by adding a little coarse material to open it up. The progressive onion grower endeavors to supply his crop with about 40 or 50 pounds of potash per year, so if this element is being supplied by the addition of wood ashes it would require from 500 to 600 pounds to do it, since good ashes test about eight per cent potash. The application of such an amount would also provide the soil with from 15 to 18 pounds of phosphoric acid. The wood ashes could be supplemented with applications of phosphate rock and nitrate of soda so as to give the soil a balanced supply of food for the onions; use say 200 pounds of the rock and 500 pounds of the nitrate of soda, applying the latter perhaps at three different times, using about 150 to 200 pounds per application. Barnyard manure should be applied to the ground with a hoed crop the preceding year so that the strawy material will be better decomposed and the plant food ready to be appropriated by the onion or cabbage plants.

FRUIT PROSPECTS.

The low temperature prevailing during the latter part of March and April delayed the buds on fruit trees to an extent that will protect them from damage unless very unusual conditions occur later on. As a result reports are coming from all fruit sections stating that the present prospects are excellent. We are yet to hear discouraging news, the only matter that disheartens growers being that the prospects are so good that if they materialize into fruit the product will be so plentiful that profitless prices will be realized from sales. But so many people thing thus during a season of plenty that it usually happens the waste is so large for lack of care that prices in the spring ordinarily pay good dividends upon the expense and patience invested to carry the fruit over. Hence those who have trees should take good care of them; cultivate and spray that nature may do her best to make perfect fruit. Of fancy fruit our best markets will demand all that is produced at good prices even though the common market be flooded with second grade material.

Some damage has resulted to southern fruit from frosts after blooming. The extent of the loss has not been ascertained. However, whether it be large or small it is not likely to affect northern growers, for when the crop of the south is small consumers of the north get in the habit of paying good prices, and when large and less expensive they take more and thus are ready to consume larger quantities of the product grown at home. The Delaware peach and pear crops show no

damage and had a full bloom. California pears are reported to be attacked with thrips, but in some instances these reports are said to be untrue.

VALUE OF A FIRM ROOT-RUN.

It is unwise to plant anything in loose ground, as the roots cannot grasp the soil without the latter has been pressed close to them. If it is necessary to plant anything when the soil is too wet to give the necessary firmness, a good treading, or, if necessary, ramming, should be given when the surface becomes dryer. It is necessary to study the character of the soil. I do not recommend heavy soil to be trampled when wet as it becomes unhealthy for the roots to work in, and when dried out it cracks and parts with its moisture too rapidly; but I should not advise anything to be planted in heavy land without having some lighter compost to work round the roots to make the condition healthy. This may only be a small detail, but it is an important one. When I had a heavy clay soil to deal with I always provided a heap of lighter stuff to place round the roots in transplanting, and to cover seeds. This heap of light compost often accounted for the difference between success and failure.

Canada.

W. R. GILBERT.

GROWING LIMA BEANS.

In the issue of April 15, page 461, N. S. G. says, "We have found lima beans one of the most adaptable as well as most profitable of our vegetables."

We fully agree with the above, but there are contingencies in growing this crop with which we do not meet in any other variety of the bean family, and to grow them successfully we must know these peculiarities and how to meet them. They are one of the most delicious of vegetables and the wonder is that so few are grown, and that, comparatively speaking, so few people use them. In offering them for sale, the writer has often been surprised to find many families that have never used them and seem to know little or nothing about them. There is little doubt but that there are more failures than successes in growing them, and this perhaps is the reason that they do not come into more general culture. We recall that some years ago a report from our experiment station stated that growing them in this latitude met with but indifferent success, or words to that effect.

Now, as to the contingencies above mentioned. In the first place, beans in general succeed best in only a moderately rich soil, as the tendency of more than moderate fertility is to produce a feast of vines and a famine of beans. Contrary to this general tendency the lima requires a rich soil and will be a disappointment on soils that would grow fine crops of other varieties. In the second place, with few exceptions they require a comparatively long season. They cannot be planted until soil and weather conditions have become warm and settled, so they are liable to be caught by the autumn frosts just at the height of the bearing season or before, if Jack happens to be a little previous in his visits. Again, there is a very important point in planting of which very little is ever said. They are the largest of all beans and in the process of germination cannot turn themselves in the soil, as do the smaller varieties. We all know that in sprouting the bean splits in halves and they form a sort of thick meaty leaf from which the main stalk comes. In the usual haphazard manner of planting these large flat beans nearly always lie on their side and in the struggle to get out of the ground, are often injured and they never make good. The remedy is to stick the beans eyes downward rather than to plant them. Stick them with the thumb and finger and cover not to exceed an inch in depth and the failures will be few in so far as breaking the soil and coming up is concerned.

As to the second cause of failure mentioned, plant as early as weather conditions become settled and safe, using early varieties, as King of the Garden, Seibert's Early, etc. A better plan still is to start them early and transplant them. They can be planted in shallow boxes and set in a moderately warm room and thus held until they are up and well established when they can be transplanted to the open ground just as safely as tomatoes. Stick them, eyes downward, in the boxes and two or three inches apart so that they can be taken up with a ball of earth

(Continued on page 532).



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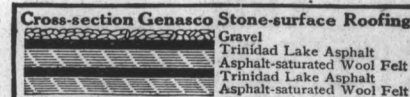


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The farmer, he garners from the soil the primal wealth of nations.

THE CONSERVATION OF OUR BIRDS.

Paper read by Miss Emily Bennett at the annual meeting of Clinton County Association of Farmers' Clubs held at St. Johns.

(Continued from last week.)

The daily food of a grasshopper is believed to be about equal to its own weight, about 15 grains. One bird examined had taken 37 grasshoppers, another had taken 30 common grasshoppers, 14 green grasshoppers and 10 crickets. Mr. Fisher estimates that if there were 20 larks and their young to the square mile of meadow, the amount of hay saved in the township would amount to more than \$300 at \$10 per ton. Many beetles, leaf-beetles, snout beetles, and curculio are all taken in their season. Caterpillars comprised over four per cent, even in December. Forest and bird conservation are inseparable. Many farmers regard the wood-pecker with suspicion and if his crimson crown is seen in a cherry tree he is apt to share the fate of many other crowned heads, but to no other source can we look for deliverance from some of the enemies of both fruit and forest trees. Wood-boring beetles, caterpillars that bore into trees, and ants, make up a large portion of his food. Some species of ants finding a small spot of decay, burrow into the tree and as the family increases the cavity is enlarged until the whole tree is honey-combed.

The flicker is especially an ant-eater. Of the specimens examined two contained more than 3,000 of a species of ground ants and one had taken fully 5,000. In the spring the corn louse is entirely dependent upon these ants which mine along the principal roots of the corn and then convey the lice to the burrow. Ants take great care of their cows, even carrying the eggs into their own nests to shelter and protect them through the winter, carrying them out again in the spring and placing them upon the plants. The flicker eats many other insects, moths, beetles, corn weevil, etc.

The sap-sucker is the only one of the family of birds whose habits are to be condemned. The cuckoo is said to be worth many dollars to the orchardist. The stomachs of 46 birds examined contained 906 caterpillars, 44 beetles, 96 grasshoppers, 100 saw flies, 30 stink bugs and 13 spiders. Nearly half the cuckoo's food is said to be caterpillars, the hairy, bristly kind rejected by most birds. When the cuckoo visits the nest of the tent caterpillar he eats as many as possible, sometimes more than a hundred. Indeed, the inner lining of the stomach is pierced by so many hairs it appears to be lined with fur. As the bird takes several meals per day his service can scarcely be estimated.

We have not mentioned the grossbeak, a bird not common in this vicinity, but the rose-breasted is coming. He is beautiful, both in plumage and in song. I wish you would all read Audobon's description of him. The Biological Survey devotes 92 pages to a description of the bird and his habits. It is of special value to fruit growers. The codling moth flies only in the night and the larvae enters the fruit as soon as hatched but the grossbeak searches out the insect in the pupa state, while as many as 100 scale insects have been taken at a meal. Also, the rose chafer, for which no remedy has been discovered. The Colorado potato beetle is esteemed a delicacy and where the bird abounds no other remedy is needed. Over 70 varieties of insects contribute to the grossbeak's food, including the bronzy woodborer, plum-curculio, tent caterpillar, gipsy moth, brown tailed moth and many more of the most injurious species. Restriction of foreign immigration is a theme much discussed. The English sparrow and many of our most destructive insects hail from the old world. To the presence and depredation of the English sparrow we may charge the departure of many of our neighborly birds, the robin and bluebird, the swallow and martin. Even when houses have been provided for them the

sparrows take possession, breaking the eggs and throwing out the young birds till the swallow, discouraged and tired of strife, retires. A barn or cliff swallow is now rarely seen and yet the swallow ranks as one of the most useful of birds, taking his prey in midair. The spread of the area occupied by the cotton boll weevil is about 50 miles per year, and the swallow stands at the head as a destroyer of this pest. They are present for a short time during the spring and fall migrations. The southern states will attempt to protect their resident birds, like the quail, which has been known to take 47 boll weevil, but it is for the northern states to aid in every way possible. True patriotism knows no state boundaries. An energetic war is urged against the English sparrow and the careful protection of the nesting places of the swallows and martins. Also that entrances be made in the modern barn. Many buildings have been closed to shut out the sparrow, and this excludes the swallow also. From the report of the Biological Survey their presence should be encouraged by every device.

(Continued next week.)

CLUB DISCUSSIONS.

The 20th Century Farmers' Club met in April at the home of Hon. S. A. Strong, with a good attendance. Mrs. Lee Ford gave a pathetic recitation and Mrs. Wm. Hewlett a select reading entitled, "Woman's Work." "The value of clover or other leguminous crops as a fertilizer," was opened by Mr. Russell, who considered clover the best fertilizer for the reason that it loosens the soil as well as enriches it. He gave his experience in bringing up the soil of a field so badly impoverished that it raised nothing but nubbins when planted to corn. He sowed to clover and kept it to clover four years, one year letting it grow and fall back to the ground, thus following nature's plan of fertilizing, which acted as a cover and conserved the moisture which he considered a better way than plowing it under. After four years he sowed to wheat and harvested 33 bushels to the acre, then put it to corn which yielded 100 bushels to the acre, and followed this with oats with a yield of 55 bushels. He preferred a top dressing with any fertilizer as, if plowed under it is liable to go down so deep that the roots will not reach it. It was argued that on clay soil results were very quickly obtained from any of the fertilizers but what we needed was results that could be seen in later years. One gave his experience in the use of commercial fertilizer. He fertilized alternate strips at the rate of 260 lbs. to the acre, then sowed to oats. The fertilized portion showed a marked difference in its early growth not so much later, with a larger and heavier berry when harvested. The acre of fodder corn was much improved while the melons were half larger and one-third more of them. One thought it might be wise to use the fertilizer to get the clover then use the clover. One who seemed to voice the general sentiment of the Club said the three C's, corn, clover and cows, would keep a farm in the finest condition if properly used. Adjourned to meet the first Wednesday in May with J. L. Stonebner and wife to discuss the profit of spraying fruit with manner and method, led by Lee Ford, also corn culture, led by Mr. Russell. Jennie M. Ford, Reporter.

The Washington Center Farmers' Club met at Old Homestead with Mr. and Mrs. J. E. De Mott on April 13. The day was stormy and the roads were in a fierce condition, but nevertheless, there were a goodly number present, and all had an excellent time. The meeting was called to order by the president. The first on the program was singing by the Club. Reading of minutes was approved of. Miscellaneous business. The secretary read a communication from William Alden Smith thanking the Club for their resolutions against the Canadian reciprocity bill. Question for general discussion, "Should the farmer take his sons into partnership?" was led by F. E. Cammet, who thought it was all right, if they could get the sons interested. This question was discussed by Messrs. Campbell, Cook, Walker, French, Curren, and others, and brought out a lively discussion. The Top Notch Farmer.—The afternoon session opened with an excellent program, including a paper on "The chances we miss," by Mrs. Will Long, and musical selections by Miss Eunice De Mott. The question, "What constitutes a top notch farmer?" was led by O. J. Campbell, who said that top notch farmers were not very thick, is one who is to the top notch of everything, is one who does not attempt to do more than he can attend to. He also gave some other very good ideas of what constitutes a top notch farmer. This question was drifted from a little by branching off onto stories, which caused much merriment. Nevertheless there were some very good ideas given on what constitutes a top notch farmer.

Suggestions on Raising Alfalfa, by S. N. French, who gave some very good suggestions, one of which was to be sure and sow enough seed. There were others who also gave some good ideas on raising alfalfa, which concluded the afternoon session. The next meeting will be at Apple Grove with Mr. and Mrs. John Keiser, on May 11, at 1:30 p. m. The meeting closed with singing by the Club.—Mrs. Cora Keiser, Cor. Sec.

GRANGE

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

THE MAY PROGRAMS.

State Lecturer's Suggestions for First Meeting.

"Birds' songs have around us thrown
An atmosphere not all their own,
But like the favorite scented flower,
Recall anew the by-gone hour."
Talk, "Spring birds I have seen."
Recitation.
Talk, "Spring flowers I have seen."
Recitation.
Alfalfa growing.
Reading, "The bright girl becomes the dull woman," followed by discussion of same.
The power of responsibility in the making of a man.
Music and recitations, in charge of Flora.

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 Lecturer.
Music and reading, in charge of Ceres.

HOW IT WORKS.

For a number of years we, in Michigan, have been advocating the preparation and printing of our programs considerably in advance. Some Granges have gone so far as to publish their plans for the entire year in advance; others for six months, and still more for only a quarter ahead. Some people have claimed it was a good idea to do this, but others have said it was all waste effort, that those put on the program forgot it until they were called upon, on the day of meeting, and therefore made no better preparation than if they had never been notified.

Just recently I have had an excellent opportunity to observe at short range how this plan works. Two or three days before the first of the present quarter I received a copy of the program of my own Grange for the current three months. Well along toward the close of this program I noticed my name opposite a topic. My first thought was, "Oh, well, that doesn't come for quite a while yet—I need not fuss over it now." With this I supposed the matter was dismissed until a later season. Quite the contrary. The subject confronts me every little while, making pleas for itself as to how it can best be presented when its proper time arrives. It seems to be aware that it is an old topic and must have a new dress in order to induce consideration. It insists that it must not fail, since it is really very important; and yet it reads over my shoulder, from letters written me, that the old topics are likely to be called "poky," and "dry," and "quite impossible." "What shall we do?" it seems to say, and then it sets about suggesting this way and that by which it may be rejuvenated and made somewhat attractive. It reminds me that I have been preaching the doctrine of appealing to the eye as well as to the ear, and it insists that I must take my own medicine. "But how?" it seems to say, for it is not an easy subject to illustrate. Then it appears to relent and proceeds to remind me that a man in New York had the same topic given to him, once upon a time in a Grange meeting, and that with a little effort he made a collection of 106 objects that lent emphasis to what he had to say himself. "With so much to look at" my topic seems to insinuate, "you will not need to say very much, for people would rather look than listen, any day!" And so I am casting about for material to illustrate my topic; and I am thinking to ask other members of the Grange to assist in this, for I have heard that it is a sign of good generalship to get other people to work. As the same topic is assigned to another person also, I must plan to talk it over with him so as not to duplicate or infringe upon what he hopes to get a chance to say.

I do not certainly know how this matter of being notified of your place on a program considerably ahead of time will ultimately work out, but this is the way it is working at present in one case at least. There are thirty-five other persons definitely named in this same advance program for the quarter, and I am thinking that if its announcement has set

as many wheels in motion in each of the other heads, as in mine, "it's goin' some," to express my meaning inelegantly but exactly.

JENNIE BUELL.

A STRIKING COMPARISON OF TARIFF TAXES.

One of the most effective arguments against the pending reciprocity measure that has yet been presented is contained in a carefully prepared statement just issued by the legislative committee of the National Grange. From the first, the Grange has contended that the cost of the manufactured articles which the farmers of both countries use is lower in Canada than in this country, and an examination of the tariff duties imposed by the Canadian government upon its manufactured imports bears out this contention. The committee finds that Canada has three kinds of tariff rates, a general tariff, an intermediate tariff, and a British preferential tariff. As the greater part of the manufactured goods imported into Canada come from Great Britain, and as the goods imported from other countries must be as low in price as those coming from Great Britain, else they would not be purchased it is only fair to take the rates of duty on British goods as the standard of comparison with our tariff rates. The following tabulated comparison of Canadian and United States tariff duties shows that on articles generally used by the Canadian farmer he pays an average tariff tax of from 20 to 35 per cent less than is paid by the farmers of this country:

| | Can. Tariff. Per cent. | U. S. Tariff. Per cent. |
|------------------------------|---------------------------|---------------------------------|
| Earthenware | 15 | 60 |
| Tin plate | free | 45 |
| Tin ware | 15 | 45 |
| Wire—some kinds | free | |
| none over | 10 | 75c per cwt. |
| Hats | 20 | 55 |
| Sugar | 35 | 80 |
| Carpets | 17½ | 60 |
| Oil cloth | 25 | 45 |
| Furniture | 20 | 35 |
| Cotton cloth | 25 | 50 to 60 |
| Soap | 65c per cwt. | 50 |
| Gloves and Mitts | 22½ | 60 |
| Dress goods | 15 | 60 |
| Automobile farm trucks | 22 | 45 |
| Pianos | 20 | 45 |
| Celluloid goods, some | | |
| kinds | free | 60 |
| none over | 5 | 10 |
| Cement | 5 | 45 |
| Underclothing | 22½ | 45 |
| Salt | free | 11c per cwt. |
| Axes | 15 | 45 |
| Shovels | 20 | 45 |
| Scythes | 15 | 45 |
| Stoves | 15 | 45 |
| Chains (iron) | 5 | 45 and up |
| Knives and forks | 20 | 50 to 60 |
| Agate ware | 22½ | 40 |
| Sewing machines | 20 | 30 |
| Oranges | free | 1c lb. and 30% on the pkg. |
| Lemons | free | 1½c per lb. and 30% on the pkg. |
| Window glass | 7½ | 60 to 75 |
| Rice | 50c per cwt. | \$2 per cwt. |
| Figs | 40c per cwt. | \$1 per cwt. and 35% |
| Jute bags | 15 | 45 |
| Cotton thread | 17½ | 45 |
| Glassware | 15 | 60 to 100 |
| Lamp chimneys | 20 | 60 |
| Brass goods | 20 | 45 |
| Lamps | 20 | 45 to 60 |
| Baskets | free | 40 to 60 |
| Rubber coats | 15 | 35 |
| Rubber boots and shoes | 15 | 35 |
| Books | 15 | 25 |
| Lead | free | 25c lb. |
| Clocks and watches | 20 | 40 to 60 |
| Bicycles | 20 | 45 |

The figures given show conclusively that the Canadian farmer buys manufactured articles at lower prices than are paid by our farmers. The other contentions of the National Grange, as to lower prices of Canadian farm lands, and lower wages of Canadian farm labor, are established by official reports, which show that the average value of farm lands in Canada is less than one-half the value of those in this country, and that the wages of farm labor in the United States are from 20 to 25 per cent higher than in all sections of Canada, with the exception of the Canadian northwestern provinces, where the rate of wages is about the same as in our northwestern states. The value of farm lands in the Canadian northwest is, however, not one-third of the value of lands in Iowa, Nebraska, Minnesota and neighboring states.

A New One for Kalamazoo.—A Grange was organized at Augusta, Kalamazoo Co., Saturday evening, April 4. This Grange starts with 75 charter members and bright prospects. The officers of the new organization are as follows: Master, C. F. Koster; overseer, M. G. Ogden; secretary, W. S. Drew; treasurer, D. J. Bailey; lecturer, Mrs. William Chichester; steward, H. E. Milspough; assistant steward, J. H. Houghtaling; chaplain, Rev. P. A. Cross; gatekeeper, H. Jensen; Ceres, Mrs. Dora Lang; Flora, Mrs. E. J. Barnes; Pomona, Hattie Houghtaling; lady assistant steward, Rhoda Smith.

COMING EVENTS.

Pomona Meetings.

Clinton Co., with Gunnisonville Grange, Wednesday, May 10. Mrs. E. J. Creyts, state speaker.
Arenac Co., with Moffett Grange, at Greenwood, Wednesday, May 17. State Master Hull, speaker.
Lenawee Co., with South Dover Grange, Thursday, June 1. Lecturers' conference conducted by State Lecturer.