

MICHIGAN FARMER

AND
LIVE STOCK
PUBLISHED WEEKLY.

JOURNAL
ESTABLISHED 1843.

The Only Weekly Agricultural, Horticultural and Live Stock Journal in the State.

VOL. CXXXV. No. 17.
Whole Number 3518.

DETROIT, MICH., SATURDAY, OCT. 22, 1910.

75 CENTS A YEAR
\$2.00 FIVE YEARS

FARM NOTES.

The Potato Crop.

By the time this issue reaches the reader the bulk of the potato crop will be out of the ground. Of course, there will be cases in which the grower has been unable to get at the work as promptly as he would like, owing to conditions over which he had no control and, as in most years, there will be some potatoes to dig well along toward the first of November. In cases where the digging has been for any reason belated until after hard freezes come and some of the tubers get frosted, the problem of their care and disposition is a serious one. In such cases the best thing to do with the frosted tubers is to pit them in the field and allow them to remain in the pits until about the third week, when they should be removed and sorted and either sold or put in the cellar for storage. The former plan is generally the better one, as potatoes that have once been frosted are likely to need more sorting if they are held for any length of time, since it is extremely difficult to get all of the frosted tubers out at a single sorting. But this is quite impossible if an attempt is made to sort them at once or, indeed, very soon after digging, since they will not all show the effects of the frost at that time. If allowed to remain until about the third week before this sorting is done, they will be in the watery stage of rot, so as to be more easily detected, and yet will not have dripped on the sound tubers to any extent so as to soil them and injure their market quality. Proper attention given to the problem of caring for the frosted potatoes, where one is so unfortunate as to have any frozen before digging, will save much trouble and loss.

It is better to pit them in the field so that they may be sorted by daylight, since it is extremely difficult to do a good job of sorting frosted tubers in a weak or artificial light. Simply opening the cellar doors and windows where they are put in the cellar as soon as dug will not afford sufficient light to do a good job of sorting, and if artificial lights are used they should be the most brilliant available in order that as many as possible of the frosted tubers may be distinguished at the first sorting. It is most important that this job be thoroughly done where it is necessary at all, and it isn't a task to be hurried or to be trusted to inefficient labor. Of course, it is much better to begin the work of potato digging in time to avoid all usual danger of freezing weather. It is a great temptation in a season like the present to leave the crop in the ground as long as possible in order that the potatoes may ripen and their skins harden down so as to avoid peeling in handling. But it is far better to dig them a little green and handle them as carefully as possible than to take any great risk of freezing weather. The present fall has been an unusually favorable one for securing the potato crop and the favorable growing weather which pre-

vailed after the drought was broken brought the crop on in fine shape, adding not a little to the yield of the late planted crop. Under these conditions there is much to be gained by leaving the crop an extra week, but the writer has found from years of experience, some of which was expensive, that in the ordinary season freezing weather may be expected any time after the middle of October, and that it is far safer to have the potato crop secured by that time.

Lessons Learned from the Season's Experience.

The season's experience in growing cash crops of any kind should be made to yield some helpful ideas to every farmer who grows them. There are always some points to be learned about any crop which may be turned to good account in future years. This is particularly important with the potato crop, which is one of the leading cash crops in this state. One thing which many farmers have learned this year is that where the crop is to be planted late, it is far better and safer to get the ground plowed in

conditions by cultivating the ground immediately after the potatoes were planted using a wide-shoveled cultivator and throwing the dirt over the rows, thus giving the seed an additional covering which protected it from the scorching heat of the sun. It also left the surface of the soil somewhat looser and rougher, which prevented it from absorbing so much of the heat of the sun's rays. This is a good point to keep in mind should the same conditions recur in future years.

Late, vs. Early Planting.

The green condition of the crop at digging time makes it a pertinent question for the consideration of potato growers, whether they have not been in the habit of planting the crop too late. Many have gotten into the habit of planting the crop as late as practicable to avoid the bug pest. The writer has been in the habit of planting from the middle to the 20th of June in recent years, and for several seasons has had to give practically no attention to the bug problem. But this advantage is perhaps more than offset by the danger from late blight,

years as formerly on the late potato crop in the writer's locality, and with the modern equipment available for spraying and them there need be no apprehensions about being able to control the pest, even if it should appear in added numbers as a result of earlier planting.

But this has not been the chief reason for late planting so far as the writer is concerned. He has been a believer in the theory that potatoes need cool, moist weather for the development of the crop, and that consequently the late planted crop, one year with another, would have better conditions for the production of a good yield than if planted earlier. It is a reasonable theory that after the fall rains come the conditions for the growth of the tubers would be better than in the drier, hotter weather of midsummer. But results obtained in actual practice are more convincing than the most plausible theory, and the writer has revised his opinions in this regard somewhat as a result of observation in recent years. A neighbor has made a practice of putting in the potato crop in May, a full month

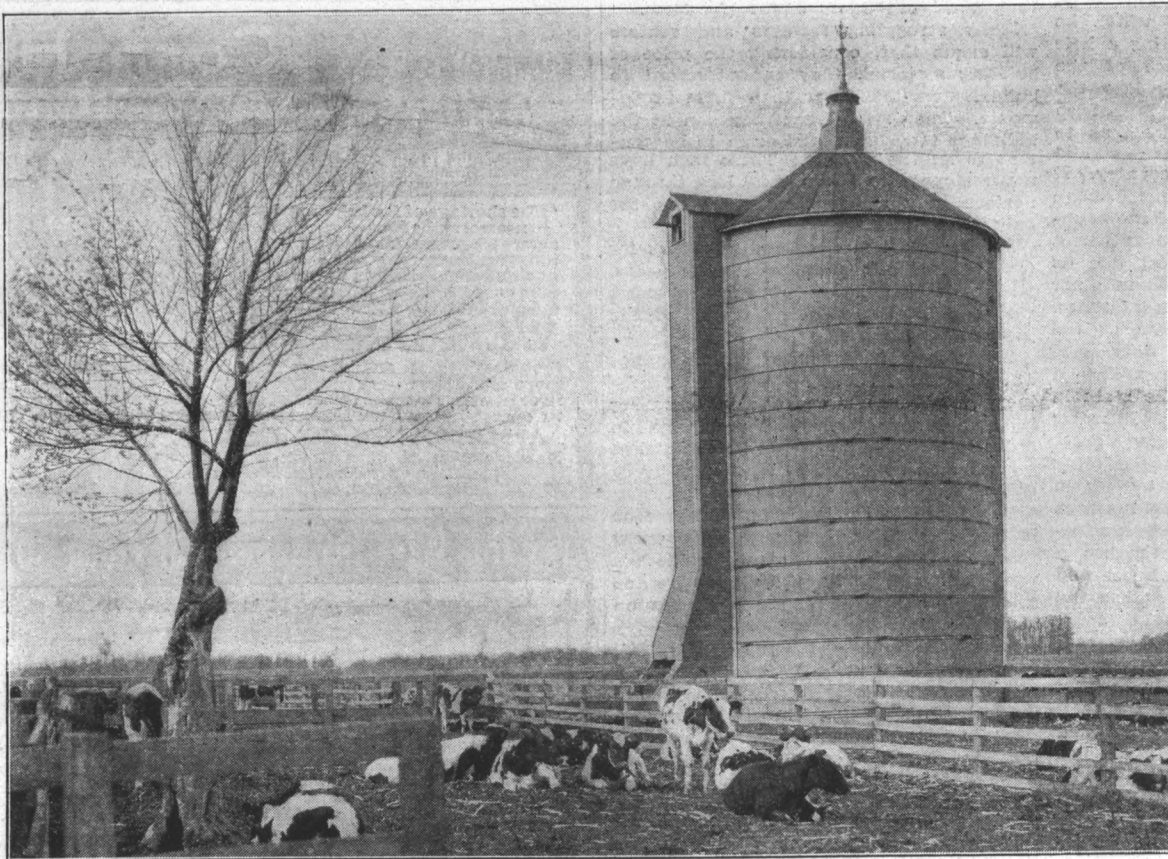
earlier than we have planted, and has gotten as good or better yields as others secured by planting earlier, and notwithstanding the dry summer has a good crop this year. Another large grower, located in the southwestern part of the state, has for years made a practice of planting his potatoes in April, and has secured uniformly good crops. This man recently told the writer that while his crop was not as good as usual this year, he had about 170 bushels per acre, and enjoyed the added advantage of getting the crop off at a good price, just between the early and late marketing season. Of course, this grower uses the most advanced methods of culture, uniformly planting the crop on a clover sod and fertilizing it well in addition, which in large measure accounts for his uniformly good yields.

Of course, if all or any considerable portion of the late crop were available for marketing early in the season, the price could not be expected to be as good as it usually is at that season of the year under present con-

ditions, yet there would be the added advantage of having the crop ripen under normal conditions, instead of being cut short in growth by the frost or being dug and handled so green as to be poor stock from the consumer's point of view. This early planting would get the work out of the way before the corn planting season, and has the advantage of reducing the danger from blight to a minimum. This is apparently a problem which is worthy of more thought and experimentation than the average grower has given it, and one which may well receive his careful consideration in the future.

Saving Seed For Next Year.

Then there is the question of the kind of seed to use and when to save it and how to handle it. The latter problem will be somewhat simplified by earlier planting, but the question of the quality of the seed is one which is given altogether too little consideration by the av-



A Silo in the Pasture is a New Idea for Carrying Live Stock Over Seasons of Short Pasture.

good season and work it over occasionally to conserve the soil moisture which may be needed later in the season. The writer has seen many fields of potatoes this year in which a very poor stand was secured, just because this precaution was not taken. The exceedingly hot and dry weather which prevailed at the time the bulk of the late crop was planted destroyed the vitality of the seed and made the stand scattering and poor on many fields where the ground had not been plowed early and the soil moisture well conserved. Even where there was plenty of moisture in the soil some of the seed suffered on this account. The writer's potato ground was in fine condition at planting time, and the seed was put in to a good depth with hand planters, yet on some of the lighter portions of the field the seed was somewhat injured and the stand was not perfect. A neighbor avoided this trouble under precisely similar

which, while not particularly prevalent, has appeared in scattered localities and caused considerable loss to the crop. If this were the only question to be settled regarding the problem of early or late planting, the advantage would appear to be with the early planting, since if we are to choose between spraying for bugs or for protection against blight, there is no question that it would be cheaper to protect the vines from the bugs by spraying. The reported appearance of a parasite which destroys the potato bugs in certain sections of the state may have something to do with the greater freedom which we have enjoyed from this pest in recent years. It is true that but few instances have been reported where this welcome helper has actually been seen at its helpful work, but most of us are not close observers in matters of this kind. Anyhow, it is certain that potato bugs have not been as troublesome in recent

erage grower, a fact to which may be largely attributed the tendency of once good varieties to run out and become unprofitable to cultivate. As before noted in these columns, the plan of saving the best hills for planting in a seed breeding plot from which the seed for the following crop is saved, is the best one. But this will not be done by the average grower, at least until the necessity of it has been brought home to him more forcibly than it yet has. But where the seed is selected from the crop after digging time, a little good sense applied to the proposition will bring profitable results. The very large potatoes should not be planted, as these usually come from hills which yield but few tubers, and they are not desirable from a market standpoint. Nor yet should the very small tubers be planted, as they are often the product of weak plants. But if the good shaped, medium-sized potatoes, the size of a hen's egg or a little larger, are selected, they are more than likely to have been produced in hills that gave a large number of marketable tubers, especially if they are ideal in shape, since the tubers of similar size which grow in the weaker hills are generally more elongated than the standard shape for the variety. Thus when the crop is marketed it will be an easy matter to select potatoes of a desirable size and shape for planting, while if the selection is left until planting time there will be no choice except to plant the best of the small tubers or plant them just as they grew, big and little included. The method of selection above advocated will secure a natural selection of the best type for seed, which is the next best thing to growing the seed in a seed-breeding plot as previously described and advocated in these columns, and such selection should not be delayed until after the main crop has been marketed.

The Potato-Stalk Weevil.

An Alpena county subscriber asks for information regarding the cause of potato vines dying in his field. He has found patches of dead vines scattered through his field of potatoes, and on pulling some of these dead vines has found a fly or beetle in the root, which he thinks gained entrance by cutting a hole in the stalk near the surface of the ground and burrowed its way into the root. While this insect pest is not so common in Michigan potato fields as to receive much attention, it is not new, and is widely distributed over the country. It has not, however, caused serious damage to the crop in many sections of the country, although it proved to be rather a serious pest in Kansas as long ago as 1897, and has been troublesome in other sections of the country at different times. This insect is commonly known as the potato-stalk weevil. Its life history is as follows: The mature female makes a small slit in any portion of the stalk in which she deposits a single egg. In a few days this egg hatches into a minute grub, which immediately penetrates the stalk and commences to eat its way down through the center. The channel made at first is so small as to be scarcely noticeable. As the grub grows, it makes a larger channel. In places it turns and enlarges the channel, which weakens the stalk. When it has bored as far down into the root as the diameter of the stalk will permit, it turns about and enlarges the lower portion of the channel to a little above the level of the ground. At the top of this channel a hole is bored outward through the woody fiber of the stalk, but not perforating the bark. It was at this point that the inquirer mentioned above thought the insect entered the stalk, but in reality this is the place prepared for the matured insect to emerge from the stalk. This work completed, the grub descends to the bottom of the cavity, weaves a cocoon and passes the pupal stage. Later in the season the matured beetle is hatched, but remains in the stalk, passing the winter season within its protecting cover, when it makes its way out of the hole prepared for its exit as described above and the life cycle is repeated.

This makes the remedy obvious. The thing to do where this insect is prevalent is to gather and burn all potato vines as soon after the crop is dug as practicable. This will destroy most of the matured beetles, and the pest could be easily exterminated in this way were it not for the fact that it also infests some weeds that are related to the potato family, being found in some of these weeds in greater numbers than in the potato plant. But the burning of the vines from infected fields and the keeping down of weeds in waste places about the farm will serve to check the development of these insects to an extent which will cause any con-

siderable loss from their depredations. This report of the prevalence of this insect in our state should, however, make potato growers watchful for its presence elsewhere, to the end that precautions may be taken against its greater prevalence next year.

CARE OF FARM MACHINERY.

In traveling through many a farming community at this season of the year the careful observer is struck by the amount of expensive farm machinery left standing in the fields exposed to the deleterious effects of sun, rain and the snows that will come later on in the winter. Binders are often seen standing in the oat field where the team was unhitched, and grain drills where the fall seeding was finished. Double cultivators rest with tongue reared over the corn field fence, and the fence corners seem to be the natural habitat of the small cultivators, plows and harrows.

An occasional farm will be passed where the implements have been gathered in from the fields and huddled in an indiscriminate mass at the end of the barn, the owner seeming to think his duty done in housing his mechanical helpers.

The fact, too, will be noticed that a farm where no machinery can be seen standing exposed to the elements wears a general air of thrift and prosperity. The buildings are usually in good repair, fences are kept up, good stock is in the fields and an atmosphere of peace and plenty prevails.

On farms where the machinery seems to be sheltered by the great outdoors, just the reverse is usually noticed. The carelessness shown in taking care of the farm implements is manifested in other ways about the farm.

Buildings and fences are neglected, and the whole place has a general run-down appearance. A farm will be seen occasionally where the machinery will be unhoused and the buildings and fences in good repair; but these are exceptions, and neglect of farm implements seems to lead to general untidiness about the farm.

Many struggling farmers and renters will argue that, considering the price of building material, they cannot afford to build houses to shelter their farm implements. They store what they can in the buildings they have, and seem to be content to let the rest go. These men have never stopped to figure their loss through neglect of their machinery. They see only one side of the question.

Many careful farmers use machines for ten, fifteen, and perhaps twenty years, which, in the hands of careless ones, would be in the scrap heap inside of five years.

If the farmer who says that he cannot afford to build sheds for his farm machinery would use more care in operating it, and borrow money, if necessary, in order to house it, he would be astonished to find that he was making money by so doing.

Machinery is costly. The farmer who is compelled to lay out large sums every year or two for implements to do his work is bound to have his nose on the grindstone all the time, unless he has an income outside the farm.

It is possible to get some idea of the pecuniary loss caused by carelessness in this regard, but it is impossible to figure the loss of time caused by tinkering with rusty, neglected machinery. A machine that is carefully operated, and housed when not in use, is bound to do better work, year in and year out, than one that is abused and exposed to the weather, or, if housed at all, is left in the field to gather a coat of rust before it is sheltered.

I know of a young farmer, who was compelled through lack of barn room, to leave his binder unhoused until late in December. He had always been very careful of his machinery, I believe a little above the average farmer, but it took him some time to prepare a place for his binder, but the time he lost at the beginning of the next harvest in getting that binder in working order convinced him more than ever that it paid, and paid big, both in time and money saved, to keep machinery under shelter.

Some farmers know nothing about machinery, and seemingly cannot learn to use and care for it properly. Right here I want to say, that if they can make money farming and pay big bills for machinery every year, they are wonders. Farming, like any other business, has to be watched in the little as well as the big things. Leakage along this line will keep any farmer poor unless he has some other source of income.

Illinois.

R. B. RUSHING.

Make and keep your fowls healthy. Give them good appetites, good digestion, good feeling, by regular use of

GERMOZONE

You will seldom be troubled with contagion in your flock if you give Germozone in the drinking water twice a week. It is unquestionably the world's greatest poultry medicine; the best bowel regulator, conditioner and tonic.

It prevents and Cures Roup, Cholera, Bowel Troubles and all Common Poultry Diseases.

Thousands have tested and proven the great value of Germozone. You cannot afford to be without it. Cost is nothing compared with having all healthy, vigorous fowls. Leading poultry supply dealers everywhere sell it. Liquid or tablet form.

Price 50c



Give Your Hens a Chance



Make heavy layers of your hens by feeding,

Lee's Egg Maker

Don't depend alone on the grains you are feeding. They are ideal for growing and fattening, but they are not egg makers. Lee's Egg Maker is the best form of meat food; a clean wholesome product; a preparation that is cheaper and contains more digestible protein—and that's what counts. Hens crave it because it is the most perfect substitute for the bugs, worms and grasshoppers which they devour so greedily. And you know that bugs and worms are nature's way of supplying protein to hens to make eggs.

25c and 50c Pkgs. 25 lb. Pails \$2.00. 100 lb. Drum \$7.00. Special prices on larger lots.

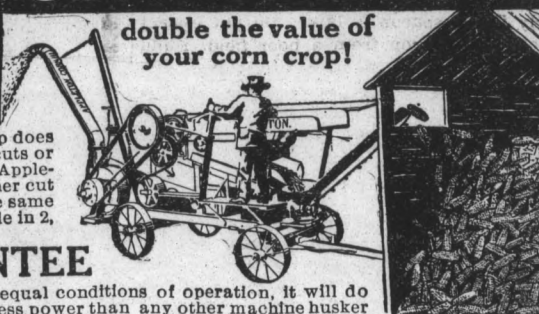
"Lee's Chicken Talk," a practical poultry book for all poultrymen, is free to you. Write for copy.

GEO. H. LEE CO., 1212 Harney St., Omaha, Neb.

APPLETON QUALITY FARM MACHINES

Corn Huskers

double the value of your corn crop!



The shortage of the hay crop does not worry the farmer who cuts or shreds his corn stalks. With an Appleton Corn Husker you can either cut or shred the stalks and at the same time husk the corn. It is made in 2, 4, 6 and 8-roll sizes, and

WE GUARANTEE

that size for size, and under equal conditions of operation, it will do more and better work with less power than any other machine husker in existence, that it is easier and safer to feed, and easier in every way to operate. Our Corn Husker Book explains every feature. Send for a free copy today.

APPLETON MFG. CO. (Est. 1872), 20 Fargo St., Batavia, Ill., U. S. A. Manufacturers of Corn Huskers, Ensilage and Fodder Cutters, Silo Fillers, Manure Spreaders, Corn Shellers, Feed Grinders, Wood Saws, Wind Mills, Steel Tanks, Farm Trucks, etc.,—and all of them Appleton Quality throughout.

Try this Wire Stretcher and Hoist 30 Days at Our Risk



Two Perfect Tools in One
The handiest tool on the farm—a wire stretcher and safety hoist combined.

Jumbo Combination Wire Stretcher and Hoist

As a wire stretcher it can't be beat. A practical hoist for ordinary lifting—changing wagon boxes, for butchering and many such jobs about the farm. **Locks Automatically.** Heavier the load the tighter the grip. Holds the load safely at any point. Patented adjustable lock shoe for various sizes ropes. Made of best steel. Lasts a life time. Pays for itself on the first job. We also make Hoists 400 to 10,000 lbs. capacity.

Write at once for **FREE TRIAL OFFER** and name of nearest dealer.

Hall Manufacturing Co., 420 Main St., Monticello, Iowa

Harness at Wholesale Prices!

Direct from our shops to you. **FREIGHT PAID.** We Can Save You Money. Write to-day for a copy of our **HARNESS BARGAIN Catalog** **JOE'S HONEST HARNESS CO., CARO, MICHIGAN.**

THORBURN'S BULBS

For Indoor and Outdoor Culture

Largest Variety: Highest Grade. Beautifully illustrated Catalogue Free on request. No. 1 collection. **108 choice Bulbs, \$2.75, delivered free** anywhere in the U. S.

J. M. Thorburn & Co., 33 Barclay St., New York.

FARMERS who will need a TANK HEATER should see the NELSON. No heat wasted, all under water. Two weeks free trial. Send for catalogue No. 20, and prices. **NELSON MFG CO., Deerfield, Wis.**

Rebuilt Machinery For Sale

20 H. Leader Traction Engine, 18 H. Rumely; 18 H. Peerless; 16 H. Gaar Scott; 16 H. Stevens; 16 H. Huber; 16 H. Pitts; 14 H. Pitts; 13 H. Gaar Scott; 12 H. Pt. Huron; 12 H. Nichols & Shepard; 10 H. Nichols & Shepard; 28-in. Belle City Thresher; 32-in. Belle City Thresher; 28-in. Huber; 6 and 8-roll McCormick Husker; 14x18 Geo. Ertel horse power Hay Press; 14x18 Southwick; 17x22 Ell belt power Hay Press; Ross Ensilage Cutter. Write us for description and price. Special bargains for the next 30 days to make room to repair our shops.

THE BANTING MACHINE CO. 114-118 Superior St., Toledo, Ohio.

Three Daily Papers

For those who would like to have three daily papers a week, we have arranged with the New York Thrice-a-Week World so that we can offer it with the Michigan Farmer a year for only \$1.45; that is, both papers a year each for that price. Send orders to us or **THE MICHIGAN FARMER, Detroit.**

Chicago Scale Co. Prices Sent Free

CLOVER CORN AND CATTLE.

It seems that one could not write three words that mean much more to the up-lifting of agriculture and the prosperity of the world than these words. Clover, corn and cattle. Each one depends upon the other for its development. If you have cattle you can generally have clover and if you have clover you can have corn and, if you have the clover and corn you can have the cattle.

Many articles have been written upon "Maintaining the Fertility of the Soil," and it really depends upon these three things.

Each and every farmer must farm his land in accordance with his location, kind of soil, and that particular kind of farming he likes best. If he is born a dairyman and his situation for such is good, then he should be a dairyman. If his hobby is for sheep, then he should feed sheep, and if he should like cattle then he should be a cattleman. And if he should like them all then he can be engaged in general farming.

I am going to tell you now how I get my clover corn and cattle. I think a great many farmers overlook the fact that the clover seed should be covered with some amount of soil. I sow my clover seed in the spring after the ground has settled and if the soil is not too hard, at the rate of a bushel to eight acres. I sowed 85 acres last spring and then we dragged it with a spike-tooth drag with sharp teeth. The dragging doesn't hurt the wheat but seems to do it good. Then we followed with the roller and this pressed the soil down upon the seed and made the ground smooth for the binder.

We top-dressed 18 acres of this wheat with barnyard manure last winter and upon this the catch was best and most of it lived through the dry weather, but the other fields were hurt some. We have followed this plan for a good while and have very good results but I do think it does the most good on the lighter soils.

Next comes king corn. I like to plow the ground for corn as early as possible and follow the plow with the roller if the soil hasn't got too much clay in it. Fit the ground thoroughly and make a good seed bed and do not plant the corn too early if the season is late. Do not expect a large corn crop from a poor field. Build up the soil with manure and clover and then you can get the corn, providing you have the moisture and good seed. I try to test my seed corn and know it pays well for the time invested. I did not test all my seed last spring as I planted 75 acres and I did not get it all tested out. I am making a tester now that I will tell you about later on. Good ground, good seed, good care with good tools, and a good hired man with a good team are the things for a good corn crop. I have seen hired men go into a corn field with a cultivator that actually cultivated the weeds instead of the corn.

I commenced planting May 21st, and finished June 1st. One field I had to drag up June 17th and plant over again. This will be a fair piece of corn but the dry weather held it back a great deal. I drill my corn with a horse planter from 11 to 13 inches apart and 3 ft. 8 in. wide. The 11 inches is a little thick in a dry season but it makes good corn for the steers. Some people think that a steer cannot eat a large ear of corn. I have been bothered more getting the ears for them than by their not eating them.

I cut the corn with the corn binder and set it up in good shocks, well bound. If I wish to sow the ground to wheat I cut on one side of the field and then throw out two rows of bundles and sow the strip and then set up the corn. We pick up the ears the binder knocks off and feed them to the hogs and cows and crib the surplus in a well aired crib. The ears can be picked up faster than you can husk them out of the shock. I really do not think there is much made by having the corn binder only that I do not husk much corn and I want it bound up for feeding the steers. When the corn has cured out and the weather dampens up then I draw and stack the corn in the bundle close to the steer barn. I stacked some two thousand bushels last fall and didn't find any of it moulded or spoiled. This fall I shall probably stack about 60 acres for the steers and cows. The steers fatten better on the bundle corn if properly put up, than they do on the husked corn.

In the spring I will have the manure from all the corn and hay and stalks and from 92 acres of straw threshed into the feed yards. This will all be put back on the land for more clover and more corn.

Jackson Co. CHAS. GOLDSMITH.

The
Overland
for 1911

Licensed under Selden patent

How We Saved You

\$300 Per Car

In the past two years we have cut the cost of Overlands 28% by investing \$3,000,000 in the highest type of modern equipment.

When the Overland was perfected and the demand came in floods, we began investing every dollar of earnings in modern, automatic machinery.

Every machine cut the cost of some part, and made that part with utter exactness. Now we have many acres of floor space filled with these wonderful machines.

This labor-saving machinery, and our enormous production, has reduced the cost of Overlands, on the average, \$300 per car. And every cent of the saving, as fast as we made it, has been given to Overland buyers.

Every material in every Overland chassis is the best that money can buy. Every feature, regardless of cost, is made in accord with the best engineering practice. The car is inspected better than any other car in the world. We have too much at stake to take chances.

But our matchless machinery enables us to build utterly perfect cars at prices which none can meet.

20,000 in Use

The Overland is not yet three years old, yet 20,000 owners are now running these remarkable cars. And dealers have already paid their deposits on more than 18,000 of the new-season models just out.

Never was a car so successful. The demand for the Overlands, for much of the time, has been from two to three times the supply.

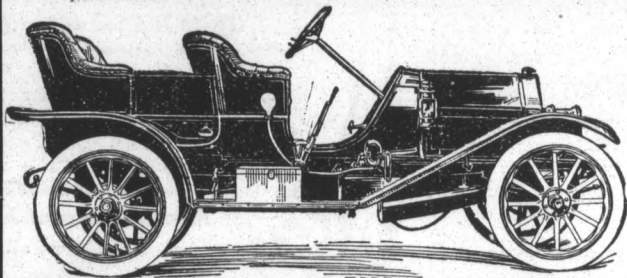
When you come to select an automobile, the first car to consider is the one which has made such a record.

22 Models for 1911

For 1911—the season just opening—we are putting out 22 models. They run from 20 to 35-horsepower—from 96-inch to 118-inch wheel bases—from \$775 to \$1,675. All are 4-cylinder cars.

We can meet any idea on size, style and power at a lower cost than anyone else.

The models include all the newest designs—the torpedo roadsters—the touring cars with fore doors—the drop frames—the straight lines. Not a new model of the highest-priced makes excels them in style or appearance.



Our \$1,000 touring car—25 h. p.—102-inch wheel base. Five styles of body. The tonneau shown above is detachable, allowing room for milk cans or farm truck.

(122)

Fore Doors Included

On some of our models we offer the option of fore doors or open front—your choice at an equal price.

The fore-door models are the coming vogue, and most makers, because of their newness, charge an extra price for them. In the Overland line these up-to-date models sell at the standard price.

Some of the models have the pedal control—some the sliding gear transmission. All have double ignition—magneto and battery. All are built to keep the cost of upkeep down to the lowest minimum.

From \$775 to \$1,675

This year we sell a 20-horsepower roadster, with 96-inch wheel base, for \$775. Its possible speed is 45 miles an hour.

Our 25-horsepower touring cars, with 102-inch wheel base, sell for \$1,000. That's nine per cent less than last year. Your choice of five styles of body.

The 30-horsepower Overlands sell for \$1,250—110-inch wheel bases. Fore door or open fronts—torpedos or touring cars.

The 35-horsepower Overlands, with 118-inch wheel bases, sell for \$1,600 and \$1,675. All prices include gas lamps and magneto.

You can easily prove that there is no other way to get nearly so much for your money.

Send us this coupon and we will mail you our 1911 Book free. It shows all the designs and gives all specifications. It gives all of the latest motor car ideas. We will direct you also to the nearest dealer showing the Overland cars.

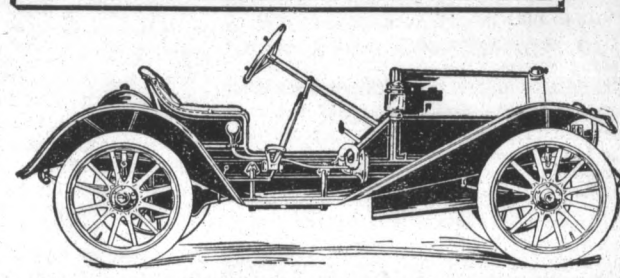
The Willys-Overland Company

(Licensed under Selden patent)

Toledo, Ohio

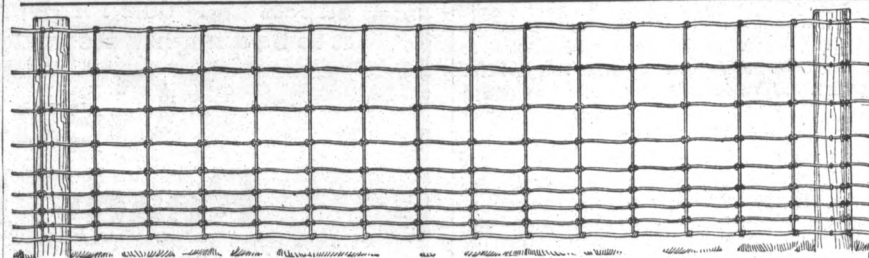
Please mail the 1911 book to

094



The \$775 Overland Roadster—four cylinders—20 h. p.—96-inch wheel base. We also make three styles of Torpedo Roadsters—one as low as \$850.

All prices include gas lamps and magneto



Hard, Tough Spring Steel Wire Fencing

Sold at Lower Prices Than Dealers Ask for the Ordinary Kind

Don't buy fencing until you have written us a letter or a postal card and asked for a copy of our free fencing catalogue, because our prices on woven wire fencing have been reduced this year owing to a new factory connection. Our woven wire fencing is not the ordinary wire fencing commonly sold but a patent knot wire fencing made from hard, tough spring steel. It is unquestionably a high grade, dependable woven wire fencing and our prices are so low that you will save a great deal by ordering from us. In addition to the woven wire fencing we offer other styles of wire fencing, fine wrought steel fencing and everything else in this line at extremely low prices. Our catalogue will be sent you by mail postpaid upon receipt of a simple request for it, and you can't afford to buy until you know our prices. Write the store nearest you, 19th and Campbell Streets, Kansas City, or Chicago Avenue Bridge, Chicago.

Montgomery Ward & Co., CHICAGO and KANSAS CITY



FENCE Strongest Made

Made of High Carbon Double Strength Coiled Wire. Heavily Galvanized to prevent rust. Have no agents. Sell at factory prices on 30 days' free trial. We pay all freight. 37 heights of farm and poultry fence. Catalog Free.

COILED SPRING FENCE CO. Box 21 Winchester, Indiana.



Ornamental Fence Cheaper than wood for Lawns, Churches, Cemeteries, Public Grounds. Also Wrought Iron Fence. Catalogue free. Write for Special Offer.

THE WARD FENCE CO., Box 411 Decatur, Ind.

New Scientific No. 20 Mill



Heavy steel legs and steel hopper. Most efficient and strongest small power mill ever built. Will grind cob corn, shelled corn, oats and all other small grains to any desired grade, from hominy feed to meal.

Fully Guaranteed

Equipped with flywheel, cold rolled steel shaft, end thrust ball bearing and 8-inch high carbon grinding plates. Two sets of plates furnished with each mill.

Adapted for use in any locality. We stand back of every claim we make for it. Write for descriptive catalog.

THE FOOS MFG. CO., Box 217 Springfield, Ohio

THE LARGEST AND BEST LINE OF WELL DRILLING

MACHINERY in America. We have been making it for over 20 years. Do not buy until you see our new Illustrated Catalogue No. 14. Send for it now. It is FREE.

Austin Manufacturing Co., Chicago

13 1/2 Cents a Rod

For 15-in. 14 3/4-in. for 22-in. Hog Fence; 15c for 26-in.; 18 3/4-c for 32-in.; 25c for a 47-in. Farm Fence. 48-inch Poultry fence 28 1/2-c. Sold on 30 days' trial. 80 rod spool Ideal Barb Wire \$1.55 Catalogue free.

KITSELMAN BROS. Box 278 MUNCIE, IND.

LIVE STOCK

HOGS OBJECT TO SMUT.

We had some wheat screenings ground to feed to spring shoats. There was some chaff and considerable cockle, also some smut of wheat, but the largest portion was small kernels of wheat. The shoats make a great fuss about eating it. We would like to know whether it is the smut, cockle or chaff that makes it so undesirable for the pigs. Is there any nutrition in the cockle and chaff?

Tuscola Co.

L. P.

Probably the smut in the wheat screenings makes the feed unpalatable for the hogs. We have no data at hand regarding the value of cockle seed as a hog feed, but it is probable that it is less objectionable to the hogs than the smut, which in addition to having no nutritive value is known to be injurious to stock when they are compelled to eat it in quantities. It would appear to be more profitable to use this wheat screenings for chicken feed, as the chickens will discriminate against the smut bolls, and will not get as much of the smut as the pigs do for that reason.

THE RAM AT SERVICE.

Nothing is more vital in the management of the breeding flock at mating time than the care and feeding of the ram. The prevalent practice among flock owners at mating time is to turn the ram into the flock and allow him to run at will. If the animal is young, thrifty and of good constitutional development the chances are fairly favorable to insure a goodly per cent of ewes with lamb at first service. But so many varied factors enter into the successful mating of breeding ewes that it is not always safe to be content with simply allowing the ram full sway even in view of the fact that from all external evidences he is in the best physical condition.

The flesh condition of the breeding ewes, the vitality of the ram and the character of the season are all potent elements in influencing successful mating. The flock owner who goes about his work in a haphazard manner at mating time is very apt to invite evil if not heavy loss. Under domestic management sheep have become delicate breeders and instances are frequent where ewes fail to breed. The flock owner who is desirous of securing a large percentage of lambs in the fall should ignore nothing that directly influences successful mating of the breeding ewes.

The initial factor to be taken into consideration in the management of the ram at service is to determine as far as possible his degree of vitality. Because a male is in good health it does not necessarily follow that he possesses the essential prepotency to transmit his desirable characteristics. It is conceded by experienced flock owners that it is inadvisable to rely entirely upon external manifestations to guide one in the computation of the breeding qualities of a male. A young male is much more uncertain at mating than a yearling or two-year-old, and if the latter has been proven to be a sure breeder, results are more certain. But the flock owner who is using a ram lamb to head his flock has a double responsibility to shoulder, and upon his attention to both ewes and ram largely rests his success.

The ram possessing the essential qualities denoting thrift, vigor and constitutional development can invariably be relied upon to successfully mate with a reasonable number of ewes in good breeding condition. The amount and character of the flesh carried by the ram at mating indicates to no small degree his reliability as a lamb getter. Many flock owners make a serious mistake in thinking that the ram ought to be in high flesh condition at the beginning of the mating period to insure a resource upon which the system may draw to replenish the reproductive organs. While the ram should be in good flesh he ought not carry any large amount of surplus fat that will tend to cause fatigue or exhaust the stored-up energy in the muscular system.

No little consideration should be directed at this time to the preparation of the ram for service. Half his worth as a stock getter will be determined by the character of the preparation he receives during the few weeks previous to mating. As a general rule, the ram is in fair flesh condition at this time of the year. With good pasture during the summer season flesh formation takes place very rapidly and unless the ram has been im-

properly cared for he will be in excellent condition to undergo preparation for mating. It is not advisable to put the ram upon tender succulent pasture during the preparatory period. Better by far turn him upon an old pasture or meadow where the forage is of good quality and of a highly nutritious character. It is not the object to cause taking on loose fat, but flesh of a firm, compact nature.

While the ram is being prepared for mating he should be secluded from the rest of the flock where he will not worry or become irritated from seeing other sheep. The pasture should be large and spacious. If possible, the pasture lot should be near the buildings where special attention can be paid to supplying a light grain ration to supplement the daily pasture. Oats, bran and a small amount of oil cake compounds one of the best rations for a ram during the preparatory period. Corn should be eliminated from the ration during the preparatory process. A limited amount of supplementary forage like rape may be fed to advantage to the ram, but not in excess of what he will readily clean up.

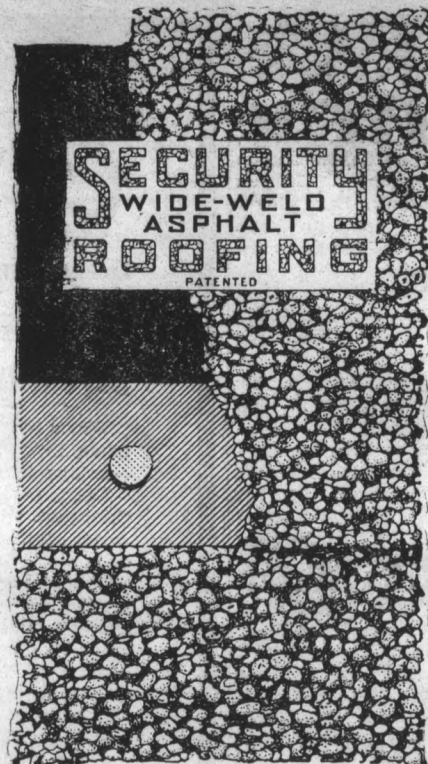
Flock owners vary widely in their opinion as to the most practical method of handling the ram during the mating season. As a general rule, however, it is thought by experienced flock owners that if the ram is not mated with too many ewes and given proper care it is all right to allow him to run with the ewes, providing he is removed morning and evening and given a feed of grain. I have practiced removing the ram during the daytime and allowing him with the flock during the cool of the evening, but under ordinary conditions it involves a large amount of additional labor, without any noticeable results. Attention should be paid to keeping the ram in good flesh condition while at service and not allowing him to become thin and run down.

Shiawassee Co. LEO C. REYNOLDS.

ECONOMY IN HORSE BLANKETS.

Horse blankets are a necessity upon every farm. Every farmer well appreciates the fact that his horses need protection when they are hitched out of doors during cold or stormy weather, as is almost daily necessary, but while all readers will agree as to the economic necessity of using horse blankets, not all appreciate the fact that it pays to use good blankets, bearing the trade mark of reliable manufacturers who are ready to stand back of the quality of their goods. Such blankets cost a little more at the start, but will last longer in service and afford much better protection to the horses, than a cheaper kind, which are jobbed without the manufacturer's guarantee or trade mark. While every farmer appreciates the necessity of having blankets to protect his horses out of doors, not all, and probably not a majority, appreciate the fact that there is economy in using blankets in the stable. The saving of labor in grooming the horse, his improved appearance which is the result of a shorter and sleeker coat of hair, together with a saving of feed, due to the fact that less of his rations is needed to keep up the animal heat in cold weather, and his greater utility in the harness due to the fact that he will perspire less freely, will all argue for the use of stable blankets upon the horses which are to be worked or driven during the winter months. Here it will pay better to use a good grade of blanket than for use out of doors, because the blankets are in use continually and the cheaper and poorer quality will soon become worn and useless. Always have a reliable manufacturer's trade mark upon the blankets you buy. Some of the better blankets will be found advertised in your farm paper, because it pays to advertise goods that give good satisfaction in wear, but it does not pay to advertise poor goods, neither does it pay to purchase them.

The Crop Reporter, published by authority of Secretary of Agriculture Wilson, gives detailed information concerning the number of stock hogs and their condition on the farms of the United States on September 1. The report shows that farmers in the north central states east of the Mississippi River devoted more attention to hog culture than farmers in any other portion of the Union, the number of stock hogs on farms in those states being 4.9 per cent larger than on the corresponding date in 1909. Of the five states in this division Ohio makes the best showing, with 10 per cent more hogs and a condition of 97, against 95 a year ago.



SECURITY Roofing has a patented, six-inch, asphalt-cement-welded joint that welds all the sheets permanently into one and gives you a continuous, one-piece roof.

By the welding of the successive sheets, your roof becomes all one-piece and resists rain, snow, heat, frost or even a shower of sparks and embers from a burning building.

There is no place where water can back up or any other agency cause leaking or trouble.

Every nail-head is covered by the full thickness of felt and asphalt, and embedded in a water-tight joint.

Thus, one of the commonest causes of leaks is entirely eliminated. No coal-tar products or inferior volatile oils are used in Security Roofing.

Security Roofing is made in three styles—Gravel Surface, Coarse Feldspar, and Fine Feldspar. The above illustration shows the Gravel Surfacing. It can also be furnished with burlap insertion for siding or roofs over one-half pitch.

There is a Security Agent in almost every town. Write us and we'll send name and address of the one nearest you.

Write for Free Book, "The Requirements of a GOOD Roof." It tells in detail why Security Roofing meets these requirements, and how easy it is to weld the patented 6-inch joint.

The National Roofing Co.

Manufacturers of Asphalt Roofing and Paint

Address all communications to

206 Filmore Ave. TONAWANDA, N. Y.

Trinidad Lake Asphalt

is the natural proven waterproofer. Its use in streets and roofs for over thirty years has shown it to be a mighty storm-defier and weather-resister.

Genasco Ready Roofing

is made of Trinidad Lake asphalt. It prevents cracks, breaks, and leaks. You can't afford to run risks. You want the roofing that proves it is proof.

The Kant-leak Kleet insures water-tight seams without cement. Ask for it with Genasco.

Ask your dealer for Genasco. Mineral or smooth surface. Don't go by the looks of roofing; insist on the hemisphere trade-mark. A written guarantee—if you want it. Write for samples and the Good Roof Guide Book.

THE BARBER ASPHALT PAVING COMPANY

Largest producers of asphalt, and largest manufacturers of ready roofing in the world.

PHILADELPHIA

New York San Francisco Chicago

Cross-section, Genasco Smooth-surface Ready Roofing

Trinidad Lake Asphalt
Asphalt-saturated Wool Felt
Trinidad Lake Asphalt



Winter
Is Com-
ing and

FURS

will soon be prime. Make up your mind at once to sell in the best market. Send for price list and forecast to:
M. F. Pfaltz & Co.,
6 E. 12th St. (Desk 4.)
New York City.

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

Kreso Dip No. 1

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

A REAL NECESSITY ABOUT
HORSES, CATTLE, SHEEP, SWINE,
DOGS, GOATS AND POULTRY.

FOR SALE BY ALL DRUGGISTS.
WRITE FOR FREE CIRCULARS. ASK FOR LEAFLET
DESCRIBING A NEW CEMENT HOG WALLOW, IF YOU
ARE INTERESTED.

PARKE, DAVIS & CO.

DEPARTMENT OF ANIMAL
INDUSTRY,
DETROIT, MICH.
U.S.A.

MINERAL HEAVE REMEDY

NEGLECT
Will Ruin
Your Horse
Send to day
for only
**PERMANENT
CURE**

**SAFE
CERTAIN.**

Mineral Heave Remedy Co., 463 Fourth Ave., Pittsburg, Pa.

DR. FAIR'S NEW WORM REMEDY



is given in feed—it kills worms
in two ways; by suffocation
or absorption, but never hurts
the horse or brood mare.

Symptoms of Worms

Nervousness, itching, rub-
bing tail, rough coat, hide-
bound, dandruff, unthrifty
condition, bloating, dusty rectum and
passing worms.

60 Horse Doses Delivered By Mail **\$1.00**

New customers may have a regular 25c box for trial
by sending only 4c in stamps.

DR. FAIR VETERINARY REMEDY CO.,
W. C. FAIR, V. S., Prop.,
5712-14 Carnegie Ave., Cleveland, O.

Coughs Colds & DISTEMPER

have no terror to horsemen who keep on hand that old
reliable remedy which is so sure and effective that it
is sold on a money back guarantee—

CRAFT'S DISTEMPER REMEDY

Once tried, you'll never be without it. No risk in buy-
ing Crafts—it always cures. Your dealer will refund
your money if it fails. If he can't supply you write us.
Send for our three Horse Books today. They're Free.
WELLS MEDICINE COMPANY
11 Third Street
LaFayette, Ind.

DEATH TO HEAVES NEWTON'S

Heave, Cough, Distemper
and Indigestion Cure.
The first or second \$1 can cures Heaves. The third
is guaranteed to cure or
money refunded. \$1 per can
at dealers, or express pre-
paid. Send for booklet.
THE NEWTON REMEDY CO.
20 years sale.
TOLEDO, OHIO.

ADVANTAGE OF SILAGE AS A FEED FOR FATTENING LAMBS.

When asked by the editor to give my
opinion concerning the advantage of feed-
ing silage to fattening lambs, I was al-
most surprised. In our locality the use
of silage to fatten all kinds of stock is so
general that we hear very little discussion
on the subject. Almost all the feeders
that operate on a large scale, as well as
many that combine feeding with dairying,
make use of the silo.

Good clover hay, with plenty of corn,
bran, oats and a little oil meal will make
as good lambs as any feed known to the
writer, but to procure enough clover to
feed a large number of lambs is rather
an expensive operation. By feeding en-
silage once a day, shredded corn fodder,
bean pods or clover hay once, the rough
feed lasts much longer. In fact, it is
about doubled so far as results are con-
cerned.

It pays to buy grain to feed lambs, one
year with another, but if the hay has to
be hauled a very great distance, the prof-
its, other than procuring fertility for the
farm, are apt to be small.

We have found the silo a great help in
solving the question of how to provide
rough feed enough to carry the amount
of stock we like to have on the farm
through the winter, and have become
convinced that lambs that are being fed
for market, as well as breeding ewes and
cattle of all ages, all thrive best when

are of much permanent use. The old
soiled earth in the stalls and cow sheds,
where the disease has existed, should be
dug up, intermixed with lime and re-sur-
faced. Everything should be done to
have a clean, sweet place for the mother
to calve in, and for the calf to be received
into. All this trouble can be obviated if
the cow calves in the open field, but this
is not always practicable.

The most recent research gives the
cause of the disease as an organism
called a pasteurilla, which is found—with
many others—in the discharge from a
calf's intestines, when suffering from
white scours. All authorities, however,
do not agree with this.

The ports of entry of the micro-organ-
ism into the calf's intestinal tract are
probably by the mouth and the unhealed
navel. Immediately it will be seen then,
how important it is that the causal or-
ganism should, by thorough cleanliness
be removed as far as possible from these
ports of entry.

The calf, being born, its mouth and
body should be freed from any uterine
envelopes and secretions, and the cow's
udder and her perineal region and her
tail should be cleaned. Again, the mi-
crobe may gain entrance from the ground
by way of the unhealed navel. One point,
after the calf is born, must not be over-
looked: Diarrhoea may arise from indi-
gestible food being given, but arising in
this way it will be of a different type
from that chiefly referred to here. The
disease usually appears during the first



First Prize Berkshire Boar at State and West Michigan Fairs. Shown by Hib-
bard & Baldwin.

silage, fed judiciously once a day, forms
part of the ration.

It is our opinion that most of the trou-
ble arising from the use of silage has
come from poor silos or the use of corn
put in before it has become ripe enough.
It should be about ready to cut and shock
before it is fit for the silo, and then, too,
we prefer to feed it in connection with
dry feeds rather than try to make it the
sole feed.

Ionia Co.

H. E. POWELL.

DIARRHOEA IN CALVES.

This is a disease well known to stock
raisers. Investigations have been white,
extended, and searching as to its origin.
It cannot be said that scientific men are
yet all agreed as to the organism of the
disease, yet fairly successful measures
have been taken to check it.

Like the poor, however, the complaint
seems to be always with us, and there
are reasons for this.

Any old barn or shed is good enough
for a cow to become a mother in, any
dirty and filth-besodden floor clean
enough to receive a newly-born calf. This
disease is allied to the so-called "filth
diseases" of the human subject. Through
generations of animal life parturition has
been effected oftentimes in the same old
stalls or sheds, and for generations calves
have suffered from this diarrhoea. One
noted authority says that the disease
arises from the excreta of previously dis-
eased calves. Is it to be wondered at,
then, that calves newly born on a soiled,
contaminated floor should suffer from the
complaint? Is it a marvel that the vet-
erinarian is handicapped to start with, in
any dealing with this disease? To cope
with it successfully from a preventive
point of view no half-hearted measures

week in the calf's life. Stinking, semi-
fluid feces of a yellowish white color es-
cape from its bowels. In other cases
calves much older may be attacked, and
any calf attacked may furnish a focus
from which the disease may be spread.
Hence the importance of keeping each
cow and calf as much as possible sepa-
rate, and to instruct the man attending
an afflicted calf to be as particular as
possible as to his personal cleanliness and
that of his utensils.

As the diarrhoea advances, it becomes
bloody (dysentery). A discharge comes
from the nostrils, the joints may swell,
and the animal dies, a pitiable object.

Many medicinal agents have been used
in the local treatment of the disease, and
fair success has been attained by means
of them where the rules of cleanliness
and hygiene have also been observed.
Probably lime water, bismuth, chalk,
chlorodyne and aromatic ammonia have
had the greatest vogue. In Germany
preparations of tannic and gallic acid
have been lately largely used.

Local treatment also comprises disin-
fecting of the navel. Calf scour serum,
has been successfully used. The theory
of this treatment is based on the fact
that a specific microbe attacks the body,
multiplies in the blood and produces a
given disease by the development of a
particular poison—toxin. An anti-toxin
is also produced at a later stage.

This anti-toxin injected into the patient
in sufficient quantity attacks, fights and
destroys or renders inert the specific
microbe of the disease. If it is proved
conclusively that this serum treatment is
all that is claimed for it, then all newly-
born calves should be inoculated in the
same manner in which children are vac-
inated against smallpox.

Canada.

W. R. GILBERT.

CRITICS

The physician who recommends,
the patient who uses and the
chemist who analyzes

Scott's Emulsion

have established it as pre-eminently
the best in purity, in perfection
and in results.

No other preparation has stood
such severe tests, such world-wide
imitation and met with such popu-
lar and professional endorsement.

To the babe, the child and the
adult it gives pure blood, strength,
solid flesh and vitality.

ALL DRUGGISTS



5A Storm King Horse Blankets

Just what the name implies—a king
among blankets. Gives genuine pro-
tection in all weathers, and shows a
wear-resisting quality that is won-
derful. No other blanket at \$2.50 is at
all comparable to a 5A Storm King.
Sold from factory direct to dealer.
That means a less price to you. Ask
to see 5A Storm King blankets.

Buy a 5A bias girth blanket for the stable.
Always look for 5A stay under strap.
WM. AYRES & SONS, Philadelphia, Pa.



WILL NOT SCAR OR BLEMISH.

GOMBAULT'S CAUSTIC BALSAM

is the safest and most effective lotion or
blister for ailments of

HORSES and CATTLE

and supersedes all cautery or firing.
It is prepared exclusively by J. E. Gom-
bault, ex-Veterinary Surgeon to the French
Government Stud.

As a **HUMAN REMEDY** for Rheu-
matism, Sprains, Sore Throat, etc., it
is invaluable.

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

DUNHAMS' PERCHERONS

Fourth importation for 1910 arrived August
4th. Our present lot, we believe, equals
or surpasses any we have heretofore
collected. More horses of bone, size and
first-class quality than ever. Numerous im-
portant prize winners. Write for catalogue.

W. S., J. B. & B. DUNHAM
Wayne, Illinois

Please mention the Michigan Farmer when
writing to advertisers.

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.

Fistula of Withers.—I have a horse that has a sore on top of shoulder that discharges pus and I have failed to effect a cure. C. W. P. Royston, Mich.—First apply peroxide hydrogen, ten minutes later apply one part carbolic acid and 20 parts water; these applications should be made twice daily. Apply boric acid to chickens eye once a day.

Spinal Disease.—I have a filly 16 mos. old that is either sick or has injured herself in some way. She will travel all right for some distance, then her hind parts seem to wobble and not follow in line with body; when first taken her neck was stiff. Have applied liniment to neck, and am giving one teaspoonful Fowler's solution at a dose night and morning, also 30 drops nux-vomica at noon. The colt was well in the evening and in bad shape the next morning. W. D. R., Ionia, Mich.—Your colt may have met with an accident to neck, or she may have chilled bringing on congestion of spinal cord. Give ½ dr. ground nux-vomica and 1 dr. iodide of potash at a dose in feed two or three times a day. A young colt should recover from an ailment or injury of this kind, but slowly.

Diseased Scalp.—I have a four-year-old mare that is troubled with an itchy condition of the scalp of mane every spring and summer; she uses her hind feet to do the scratching, unless it is more convenient to rub on something else. A. L. T., Hudson, Mich.—Mix one part oil of tar, four parts of fish oil and five parts raw linseed oil and apply to itchy scalp or other itchy parts of body every two or three days. When you decide to wash off this dope dissolve one ounce of sal-soda to each quart of warm water.

Navel Infection.—I have a colt that leaked at navel when he was a few days old and there is a bunch on knee which appeared about the time I first noticed his leaking water. Having noticed in the April number of The Farmer an inquiry about leaky navel, and your remedy for same, I applied it with good results, but the bunch on knee is still there and I would like to know how to remove it. The navel is almost healed and the colt is now past three weeks old. W. G., Climax, Mich.—Apply one part tincture iodine and five parts spirits camphor to knee once a day; very light applications give best results in such cases.

Bursal Swelling on Stifle Joints.—I have a sucking colt that apparently got kicked on stifle two or three months ago, causing a bunch to come on both stifle joints. Local veterinary surgeon thought best not to open into sack for fear of opening joint. He prescribed iodine, camphor and witch-hazel which seems to have reduced one bunch, but the other remains. Colt is not lame and bunch not painful. M. M. K., Alto, Mich.—Apply one part iodine and eight parts lard every day or two. Give 20 drops syrup iodide of iron at a dose twice a day.

Knuckling.—I have an old mare that has been cocked all summer but she has not been lame until a week ago. Her leg is now enlarged and feverish, extending up to hock joint. Exercising seems to reduce the swelling, but the more work she does the weaker she gets, and I would like to know how to cure her. F. H. H., Benton Harbor, Mich.—Apply one part turpentine, one part aqua ammonia and four parts raw linseed oil to fetlock joint once a day for a few days, then once every few days.

Light Milker.—My cow came fresh on Sept. 14, but fails to give her usual milk supply and I would like to know how to bring her up to normal again. She is in good health but gives only about one-half as much milk as she did when fresh last year. P. J., Holton, Mich.—More can be done by feeding than drugging her. If her bowels are too costive give epsom salts, also give two tablespoonfuls of the following powder: Mixed ginger, gentian and cinchona, at a dose in feed three times a day. She should be fed on milk-producing food.

Indigestion.—My eight-year-old mare has not been digesting her food properly for several weeks past. I had her teeth floated, but this failed to do much good; have watered her both before and after meals, and can see no difference in her condition. Have fed her ground oats, also whole oats and mixed hay. She has a good appetite, but is gradually losing flesh. C. E. H., Cornelius, Oregon.—Mix together equal parts by weight, powdered sulphate of iron, gentian, ginger, fenugreek and rosin. Give a tablespoonful at a dose in feed three times a day.

Surfeit-Eczema.—I have a two-year-old colt that seems to have some sort of skin trouble affecting the head, neck, shoulders and fore legs. She has been troubled more or less for the past 90 days, the sores never break open. Small pimples raise up on skin and soon dry. She bites herself and acts as if very itchy. Have tried several different kinds of lotions without result. S. H., Ludington, Mich.—If the colt has a long, rough coat, clip him. Give 2 drs. Dorevan's solution of arsenic at a dose in feed three times a day. Apply one part oxide zinc and eight parts vaseline to itchy parts every day or two. He should be washed with warm soap suds once a week while this mild weather lasts.

Strong Healthy Women

If a woman is strong and healthy in a womanly way, motherhood means to her but little suffering. The trouble lies in the fact that the many women suffer from weakness and disease of the distinctly feminine organism and are unfitted for motherhood. This can be remedied.



Dr. Pierce's Favorite Prescription

Cures the weaknesses and disorders of women. It acts directly on the delicate and important organs concerned in motherhood, making them healthy, strong, vigorous, virile and elastic.

"Favorite Prescription" banishes the indispositions of the period of expectancy and makes baby's advent easy and almost painless. It quickens and vitalizes the feminine organs, and insures a healthy and robust baby. Thousands of women have testified to its marvelous merits.

It Makes Weak Women Strong.

It Makes Sick Women Well.

Honest druggists do not offer substitutes, and urge them upon you as "just as good." Accept no secret nostrum in place of this non-secret remedy. It contains not a drop of alcohol and not a grain of habit-forming or injurious drugs. Is a pure glyceric extract of healing, native American roots.

TAKE A GOOD LOOK AT THIS LABEL

It stands for all that is best in shovel construction. It is a positive guarantee that any shovel bearing this label and the "O. Ames" die-stamp is the best—the world's standard.



THE QUALITY MARK

Remember to look for the "O. Ames" stamp and label if you want to secure a quality made shovel.

We would like to mail you "Shovel Facts." It is free—just send us your name and address on a post card.

OLIVER AMES & SONS
Corporation
Ames Building, Boston, Mass.

Public Sale

of 60 head of thoroughbred **HOLSTEIN CATTLE**

consisting of 40 cows, 15 heifers and 5 yearling bulls.

OCT. 27th, 1910,

just across from L. S. & M. S. depot. Write for particulars. **RIPLEY & ROICE, Dimondale, Mich.**

AUCTION SALE, OCTOBER 25.

I offer for sale to the highest bidder 35 head of cattle, of which 14 are cows and heifers, new-milchs or coming in soon, mostly Holsteins or grade Holsteins and Jerseys; one 3-year-old Holstein Bull, 1 yearling Jersey Bull. The balance are heifers from these cows; some good sheep; a number of O. I. C. Boars and sows; a large quantity of hay, corn, oats, fodder and tools. Also fine dairy and stock farm of 200 acres containing plenty of pasture, spring water, good land, 300 fruit trees, 2 dwellings, basement, barns, 35 ft. silo.

C. W. SCHULZE, R. No. 1, Bellevue, Mich.

For Sale—Horses, Cattle, Sheep, Hogs, Dogs, or Poultry, nearly all breeds. Sires exchanged. Southwest Michigan Pedigreed Stock Association, R. E. Jennings, Sec., Paw Paw, Mich.

FOR SALE—25 head Feeding Heifers. Beef breeds, average about 800 lbs. each and are well started. **ALLEN CARLISLE, Nottawa, St. Jo. Co., Mich.**

Please mention the Michigan Farmer when you are writing to advertisers.

BREEDERS' DIRECTORY.

CATTLE.

ABERDEEN-ANGUS.

Herd headed by **UNDULATA BLACKBIRD** ITO 33836, one of the best sons of **PRINCE ITO** 50006, and Grand Champion Bull at the Detroit and Grand Rapids Fairs of 1907, 1908, 1909 and 1910. Herd consists of **Erica, Blackbirds, Prides, etc.** **WOODCOTE STOCK FARM, Ionia, Mich.**

AYRSHIRES

—High type of Dairy animal. Young bulls and bull calves for sale. Prices low. Inquiries solicited.

BERKSHIRE SWINE.

FINE POULTRY—White and Barred Rocks, White & Buff Orpingtons, White Wyandottes and Leghorns. Eggs in season 10c each.

MICHIGAN SCHOOL FOR THE DEAF, Flint, Mich.

FOR SALE—A fine, registered **Guernsey Bull**, 3½ years old. I have owned him over 3 years and sell him only because I must get another for my herd. Reference, Mr. Wigman, Lansing. Apply to **JOHN F. POLKOW, Brighton, Michigan.**

Maple Ridge Farm, class Guernseys. Write us your wants. **E. & J. T. MILLER, Birmingham, Mich.**

CHOICELY BRED HOLSTEIN-FRIESIAN Bull Calves prices. **Cole Bros., Ypsilanti Farms, Ypsilanti, 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 FARMS CO., Howell, Mich.

NOTHING BUT HOLSTEIN BULLS FOR SALE. Sir May Hartog Posch No. 37004. A. R. Three Nearest Dams Average 26 2 lbs. butter in 7 days, Sound, Sure, Gentle, and one of the finest individuals of the breed. If you want a Herd Header come and see this one. I can place any breeder with a bull calf two to ten months old. I want to sell TEN before Nov. 1st. Help me do it by buying one. **L. E. CONNELL, Fayette, O.**

For Sale Cheap—Five choicely bred Holstein sires, ready for service. **WILLIAM B. HATCH, Ypsilanti, Mich.**

ELMHURST FARMS, Smith & Warner, Props. Holstein Cattle and Oxford Down Sheep. Have 15 Choice Ram Lambs for sale. Address **B. C. Banfield, Supt. Owendale, Mich.**

FOR SALE—2 yearling Holstein-Friesian bulls. Pedigrees and photo on application. **W. C. JACKSON, 715 Rex St., South Bend, Ind.**

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

FOR SALE—12 registered Jersey Cows of St. Lambert and Island blood, from 2 to 10 years, all fresh or nearly so. Price \$100 each if taken at once. **C. A. Bristol, R. F. D. 5, Fenton, Mich.**

Register of Merit Jerseys. Official yearly record. A fine lot of young bulls from dams with official records of 483 pounds and upwards of butter.

T. F. MARSTON, Bay City, Michigan.

BUTTER BRED JERSEY BULLS FOR SALE. **CRYSTAL SPRING STOCK FARM, Silver Creek, Allegan County, Michigan.**

LILLIE FARMSTEAD JERSEYS. We have some splendid young bulls for sale. Some of them are old enough for service. They are from cows with records of 300 to 425 pounds of butter last year. Write for description and prices.

COLON C. LILLIE, Coopersville, Michigan.

JERSEY BULL CALF born Oct. 21, '09. Dam Register of Merit Cow. Maternal grand dam gave 9 000 lbs milk in one year, 520 lbs. butter fat. Sire's dam gave 10 000 lbs. milk. Test 5.2% in 10% Mo. Herd tuberculosis tested. **THE MURRAY-WATERMAN CO., R. F. D. 6, Ann Arbor, Mich.**

Dairybred Shorthorn Bulls for sale. 7 mo. old, also a few yearling heifers. **J. B. HUMMEL, Mason, Michigan.**

SHEEP.

ROCKLAND Farm Delaines are in field form, strong, rugged and well covered. Price right. Write us your wants. **D. E. Turner & Sons, Mosherville, Mich.**

CHOICE registered DELAINE MERINO RAMS AT HALF PRICE. Will ship on approval. **Lorimer Kipp, Rockford, Kent Co., Mich., R. F. D. 28.**

Some Good Registered Delaine Merino Rams Also a few Delaine Ewes. **C. M. MANN, Rockford, Kent Co. Michigan.**

Hampshire Sheep—Rams and Ewes for sale. Prices Moderate. Comfort A. Tyler, Coldwater, Mich.

HAMPSHIRE RAM LAMBS and several extra good YEARLINGS. All registered. **C. D. WOODBURY, Lansing, Mich.**

Hampshire, Southdown, and Cotswold Rams and ewes for sale. Prices right. **THE CLOVER BLOSSOM FARM, Port Austin, Mich.**

LINCOLN SHEEP—either sex, 2 years, 1 yearlings or Ram Lambs. Write or phone. **A. H. WARREN, Ovid, Mich.**

MERINOS & DELAINES—One of the oldest, best bred, heaviest shearing flocks in Ohio. Yearlings and 2 choice "B" type stock rams, fit to head any flock. Write **S. H. SANDERS, Ashtabula, Ohio.**

Parsons Oxford Rams—These popular big, dark faced rams will produce bigger and better lambs. Grade X \$15. XX \$20. XXX \$25.00. **Romeyn C. Parsons, Grand Lodge, Mich.**

Oxford-Down Sheep and Polled Durham Rams and ewes for sale. **A. D. & J. A. De GARMO, Muir, Mich.**

OXFORD RAMS And ewes from Imported Rams, and ewes bred to same. Address **B. F. MILLER or GEO. SPILLANE, Flint, Michigan.**

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

DELAINE RAMS, also 50 registered Delaine ewes which must be sold before Dec. 1. Great bargain for some one. **S. J. COWAN, Rockford, Michigan.**

46 RAMS and 100 ewes (reg) Rambouillet descended from the best flocks. In perfect health in lots to suit buyers. **J. Q. A. Cook, Morrice, Mich. Bell Tel.**

Shropshire Hall Stock Farm Will make special prices, for thirty days, on some choice one and two-year-old ewes, also ram lambs.

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

SHROPSHIRE—A few choice field rams. Also O. I. C. swine. **C. J. THOMPSON, Rockford, Michigan.**

For Sale—A few good Shropshire Yearling Rams, bred from imported stock. Prices right. **Jones & Morrish, Flushing, Michigan.**

CHOICE Registered Shropshire and Cotswolds, yearling ewes, ram and ewe lambs, Yorkshire and Berkshire hogs, Clyde Stallions and Fillies and Welsh ponies. Write for prices. **Arthur L. Milne, Green River, Ont.**

SHROPSHIRE Rams and Ram Lambs, eligible. Also Poland-Chinaswine both sexes. Prices right. **B. C. Raymond, Dansville, Michigan.**

MUST sell at once a little flock of Shropshire ewes, mostly young, and 6 buck lambs. Very best breeding. Will sell cheap. **J. W. Slater, Traverse City, Mich.**

REGISTERED Shropshire Rams and ewes for sale from imported and Canadian bred stock. Satisfaction guaranteed. **Willis S. Meade, R. No. 3, Holly, Mich.**

SHROPSHIRE yearling and ram lambs, the best of wool and mutton type from registered stock. **GEO. P. ANDREWS, Dansville, Ingham Co., Mich.**

INGLESIDE SHROPSHIRE—Rams of all ages. Bred ewes, singly or in lots. **H. E. Powell, Robt. Groves, Shepherd, Ionia, Mich.**

FOR SALE—70 Good Registered Shrop Ewes, 20 yearling rams, 10 ram lambs, one 2-yr.-old stock ram bred by Wardwell, E. E. Leland & Son, R. No. 9, Ann Arbor, Mich.

MAPLE RIDGE SHROPSHIRE—Closing out sale choice yearling rams. Ewes all ages, will be sold without reserve. **H. STEWART, Lennon, Michigan.**

HOGS.

LARGE ENGLISH BERKSHIRES

Have fine lot of male pigs about 4½ months, of large, growthy type. Also good young gilts, same age. Prices reasonable. Satisfaction guaranteed.

F. A. BYWATER, Memphis Michigan.

HUPP FARM BERKSHIRES!

WON 189 PRIZES IN 1909. Stock of both sexes and all ages for sale. Breeders of Guernsey Cattle, M. B. Turkeys, Barred Rock Chickens, Pekin Ducks. **GEORGE C. HUPP, Manager, Drawer A, Birmingham, Michigan.**

BERKSHIRES—Boars ready for service \$25. Young pigs either sex. \$15.00, two for \$25.00 Registered and transferred. **C. C. COREY, New Haven, Michigan.**

BERKSHIRES—Handsome Jewell 116314 young champion boar of Michigan 1908, son of the \$1,500 Handsome Lee 91407, and a choice lot of pigs of his get at moderate prices. **M. D. & G. B. Johnson, Plymouth, Michigan.**

BERKSHIRES Unexcelled in breeding. Selected boars, sows and gilts. Choice fall pigs. **T. V. HICKS, R. No. 11, Battle Creek, Mich.**

Duroc Jersey Male Pigs of Fall Farrow, at reasonable prices. **H. E. MELDRUM, Wayne, Mich.**

DUROC JERSEYS.

CAREY U. EDMONDS, Hastings, Michigan.

Duroc Jerseys—60 Spring Boars ready for service; 86 Spring Sows. Special prices for 30 days. Write or come and see. **J. C. Barney, Coldwater, Mich.**

DUROC JERSEY SWINE. Shepherd Dogs, B. P. Rock Cockerels. **J. H. BANGHART, Lansing, Mich.**

Chester Whites and Guernsey Cattle, also 102-acre farm. A change of business and everything for sale before Sept. 25th. **WILL W. FISHER, Waterville, Michigan.**

IMPROVED CHESTERS

Choice Pigs of March and April farrow either sex. **W. O. WILSON, Okemos, Mich. (Both Phones).**

O. I. C.'s—Hogs all ages for sale, sows bred or open, boars any age or size. Shipped on approval. **HARRY T. CHANDLER, Rolling View Stock Farm, CASS CITY, MICHIGAN.**

O. I. C. Hogs all ages. Sows bred. Males weighing 195 lbs. and more. **H. H. JUMP, Munith, Michigan.**

O. I. C.—Choice bred Sows. May and August boars from World's Fair Winners, at Glenwood Stock Farm, Zeeland, Michigan. Phone 94.

O. I. C.—For Sale a few choice pigs of March and April farrow in pairs not akin. Satisfaction guaranteed. **A. Newman, Marlette, Mich., R. F. D. 1.**

O. I. C. Swine—Spring farrow, of both sexes, of right type and breeding. \$20. each. **E. E. BEACH & SON, Brighton, Mich. Route No. 3.**

O. I. C. SWINE—Have a number of choice boar pigs of April farrow got by Grand Son of Jackson Chief, the World's Champion and Grand Champion Boar. Gilts all sold. Write for live let live prices. **A. J. GORDEN, Dorr, R. F. D. No. 2, Michigan.**

River View Hampshires—Sow Pigs 6 wks. Spring Gilts, bred or open, Mature sows, 2 yearling boars. I well bred St. Lambert Jersey bull, 18 mos. Prices right. **A. L. Allis, Adrian, Mich. R. No. 1.**

RECORDED MULE FOOTED HOGS

are said to be immune from hog cholera. Stock of all ages for sale. **John H. Dunlap, Williamsport, Ohio.**

150 POLAND-CHINA SPRING PIGS

either sex, with size, bone and quality. Bargains on early fall weaned pigs. 1 ship c.o.d. and furnish pedigree promptly. Write for prices.

WM. WAFFLE, Coldwater, Michigan.

P. C. Bargains—3 choice boars ready for service. 1 good sow for Sept. farrow. **Z. KINNE, Three Oaks, Michigan.**

P. C. BOARS of great size, great quality and the best of breeding. Satisfaction guaranteed. **R. W. MILLS, Saline, Mich.**

25 BIG BOARS at \$25—Ready for service. Sired by three big type Western bred boars, and from big type sows, bred big for 20 years. We are the pioneer big type breeders of Michigan. Pairs and trios not akin. **J. C. BUTLER, Portland, Mich. Bell Phone.**

Large Type Poland-Chinas—Largest in Mich. Pigs from 150 to 160 lbs. at 4½ months old. Will deliver what I advertise. **W. E. LIVINGSTON, Parma, Michigan.**

Poland-Chinas—Boars ready for service; spring pigs, either sex. Write **L. W. Barnes & son, Byron, Shiawassee Co., Mich.**

Poland-Chinas—Large styled, growthy spring pigs, also fall pigs. Send for snap shot photos and lowest prices. **Robert Neve, Pierson, Michigan.**

P. C. BOARS—Big growthy fellows, worth the money. **WOOD & SONS, SALINE, MICHIGAN.**

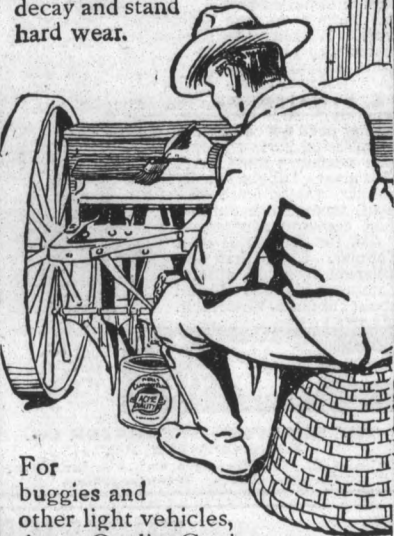
Poland-Chinas—Boars, Gilts and Pig of quality at the right price. **B. M. WING & SON, Sheridan, Michigan.**

Large Improved English Yorkshires. The hog that makes good. Boars ready for service. Gilts bred for next spring farrow. A choice lot of fall pigs, pairs not akin. Satisfaction guaranteed. **COLON C. LILLIE, Coopersville, Michigan.**

Good Paint is a real Money-Saver

Paint your farm implements and wagons with **Acme Quality Wagon Paint** this Fall. Then they will be in first-class shape next Spring when you need them.

This paint is made especially to resist the effects of sun and weather, prevent decay and stand hard wear.



For buggies and other light vehicles, **Acme Quality Carriage Paint** (Neal's) gives a handsome and durable coat. There's an

ACME QUALITY Paint or Finish

for every surface, for everything you may want to cover, wood or metal, inside or outside.

The Acme Quality Guide Book tells which to use and how it should be applied in every case. Illustrated in color. This is a valuable book to have and you should write at once for a free copy.

Ask your dealer for Acme Quality Paints and Finishes. If he can't supply you, write to

**ACME WHITE LEAD
and COLOR WORKS,
Dept. AA
Detroit, Mich.**



LET US TAN YOUR HIDE.

Cattle or Horse hide, Calf, Dog, Deer, or any kind of skin with hair or fur on. We make them soft, light, odorless, wind, moth and water proof, and make them into coats (for men or women) robes, rugs or gloves when so ordered.

Your fur goods will cost you less than to buy them, and be worth more. Send three or more cow or horse hides in one shipment from anywhere east of Denver and we pay the freight both ways. Get our illustrated catalog which gives prices of tanning, taxidermy and head mounting. Also prices of fur goods, and big mounted game heads we sell.

**The Crosby Frisian Fur Company,
571 Lyell Ave., Rochester, N. Y.**



**A FLOOD OF LIGHT
FROM KEROSENE (Coal Oil)**
Burning common kerosene the ALADDIN MANTLE LAMP generates gas that gives a light more brilliant than city gas, gasoline or electricity. Simple, odorless, clean, safe and durable. **AGENTS MAKE BIG MONEY** is revolutionizing lighting everywhere. Needed in every home. Every lamp guaranteed. Sell it. Our Sunbeam Burners fit other lamps. Ask our nearest office how you can get a lamp free or apply for Agency Proposition. **THE MANTLE LAMP CO. of America, Dept. 513**
Chicago, Portland, Ore.; Waterbury, Conn.; Winnipeg, Montreal, Canada.

PATENTS: For facts about Prize and Reward offers and Inventions that will bring from \$5000 to Ten Million Dollars, and for books of Intense Interest to Inventors, send 8c. postage to Pubs. Patent Sense, Dept. 89, Barrister Bldg., Washington, D. C.

POULTRY AND BEES

THE BIG VS. THE SMALL POULTRY BREEDER.

An article in a recent Farmer, the writer of which seems to prefer securing new blood for the poultry flock from the one-variety breeder, set me thinking. I own that I cannot subscribe to all of the statements made, and I believe that I am unbiased, for I belong to that very large class of farmers who make poultry a more or less neglected side line, and who depend upon the occasional introduction of new blood for whatever improvement is made in the flock from year to year. What the condition of our flocks would be were it not possible to thus occasionally secure a fresh start in the way of breeding stock is not pleasant to think about, and therefore it seems to be that we are, in no small degree, indebted to the men who make the breeding of pure-bred poultry a business and a study. The wide-awake farmer, with many and diversified crops and products, realizes that he cannot give his poultry the attention necessary to prevent the flock from deteriorating through inbreeding and accidental crossing, and so he has come to regard the so-called professional or expert breeder of poultry in the same light as he does the careful breeder of any line of pure-bred and registered live stock, or the man who makes a specialty of growing certain grains, vegetables, etc., for seeding purposes. Such breeders have become an absolute necessity, and to them, in my opinion, is due much of the credit for the steady advancement of the poultry industry in recent years.

Now the more completely the time and attention of these breeders are devoted to this one industry the greater the confidence they inspire. It is asserted that the man who handles many breeds cannot give to each the same attention that is bestowed by the breeder of but one variety. Granting that each gives his whole time and study to the work in hand, this is perhaps true. But it is the exception to find a breeder of one variety who gives all his time to the business. On the other hand we must not overlook the fact that the breeder of several breeds is, in most cases, not only giving poultry his entire attention but that he has learned the business from the ground up. It cannot reasonably be assumed that he jumped into the business yesterday, nor that he is a born poultryman. In all probability he was a one-variety breeder at the start, giving to his chosen breed such care and study as seemed necessary to insure the highest success. The introduction of another variety or breed brought some new problems, but these were finally mastered and then came the determination to make a business of breeding poultry. Other breeds were added as fast as the plant could be extended and facilities for handling them provided.

To my mind, the fact that such breeders understand far better than does the average poultry raiser the conditions that are absolutely essential to the greatest success in poultry growing, argues that it is folly to assume that they will court disaster through lack of care and vigilance. They understand better than anyone else the precariousness of inbreeding and of cross-breeding. In my opinion, there is little danger of accidental crossing upon the well-managed poultry farm, even though a dozen different breeds are kept. It is true, that some breeders, those who go into commercial poultry raising on a considerable scale, practice the crossing of two pure breeds for the production of market fowls, for it is well known that a first cross is generally superior to a pure-bred for this purpose. However, it is equally well known, especially by the experienced breeder, that it is suicide to go beyond the first cross, many a breeder having acquired this knowledge through bitter experience. Would that the poultry raising farmers of the country were as well informed as to the foolishness of using a cross-bred fowl as a breeder! With this knowledge in mind the breeder who markets cross-bred poultry takes extra precautions to keep his breeding stock pure.

As to the statement that it is impractical to keep a variety of breeds upon restricted range, it is disproven by the existence of hundreds of successful poultry farms in all parts of the country, and by the further fact that most of our experiment stations maintain good-sized flocks of various breeds, the purity and quality of which are unquestioned.

Branch Co. N. A. B.

THE LARGER BEESWAX MOTH.

While removing a section of honey from a hive of bees I discovered five grub-like worms, two of which I am forwarding you under separate cover. Would like to know the name of pests, also some way of ridding the hive of them.

Lake Co.

R. E. W.

Reply to the above has been delayed, owing to the fact that the grub-like worms mentioned were nearing the chrysalis stage at the time of their arrival and a few days later were securely enclosed in compact white cocoons. It was deemed impossible to accurately identify them at that time and the box containing the cocoons was therefore laid aside. A recent examination revealed a brown moth which had issued from one of the cocoons. This moth proves to be one of the bee moths with which most bee-keepers are familiar. There are two kinds of the bee moth, one being known as the larger beeswax moth, the other as the lesser beeswax moth, or the honeymoth. As the names indicate, they differ in size. They also differ in color, the larger moth having a reddish-brown head, while the forward pair of wings are brown, shading off to a light grayish-brown at the outer ends and along the rear margins. In the smaller species the general color is a dead gray, the head being yellow. The body of the moth which came from the cocoon above referred to is a trifle over one-half inch long while the spread of its wings is nearly 1 1/4 inches. The moth of the smaller species is fully one-third smaller.

The larger species is the more destructive of the two. However, this pest is now not much dreaded by experienced bee men, for the reason that almost any strong active colony of bees will quickly clear their hive of the moths and of the grubs or caterpillars which may hatch from their eggs. This is especially true of Italian colonies, apiarists having all Italian colonies going so far as to assert that the bee moth has practically become extinct on their premises. It must be understood, however, that the hive must contain no moth harbors if the bees are depended upon to drive out the pests. Crevices large enough to admit a worm but which exclude a bee are almost sure to cause trouble. The time was when so-called moth traps were considered essential adjuncts of hives but they have long since been discarded, it being claimed that in fitting the traps to the hives harbors for the pests were created which were not present in ordinary hives.

That these grubs infest your hive seems likely to be due to one of two things: Either the colony has become rather weak in numbers, or the hive is so constructed, or so in need of repair, that it has afforded opportunity for the moths to gain a foothold. If the colony is weak, unite it with another weak colony if you have one, making sure that the united colony is in a hive which offers no protection to the pests. If the hive is at fault, transfer the colony to a better hive. Some bee-keepers declare that an Italian colony will clear the worms from a frame in a few hours, so if you question the ability of the united colony (which we assume is composed of ordinary black or hive bees) to clear the frames it might be well to have this work done by the Italian colonies, in case you have such, placing one frame in the center of each Italian hive. If the fault is not with the hive, and if the colony is a good strong one, then the trouble would seem to lie in the indisposition of the bees to drive out their enemies. In that case it would seem advisable to Italianize your bees by securing and introducing Italian queens.

STATE BEE-KEEPERS TO MEET.

The annual meeting of the Michigan Bee-keepers' Association will occur at Grand Rapids, Wednesday and Thursday, November 9 and 10. A list of more than a dozen topics of live interest has been announced and the presence of a dozen or more of the country's most prominent bee authorities, who will lead in the discussion of the topics, is promised. Every one in attendance will be expected to add to the value and interest of these discussions by asking questions and by contributing brief hints and suggestions born of his own experience. In addition to a number of complete exhibits of bee-keepers' supplies there will be an exhibition of apiary products, first, second and third prizes having been offered for the following: Best 10 sections of comb honey; best 10 jars of extracted honey; best 3 sections of white comb honey; cleanest sample of 10 lbs. of beeswax. Sweepstakes prize is also offered for best collection containing 10 sections of comb honey, 10 bottles extracted honey and 10 lbs. beeswax, honey and wax shown in other classes being eligible in this. Sec. Treas. E. B. Tyrell, of Detroit, will promptly respond to requests for further information concerning this meeting.

Toothsome Tid-Bits

Can be made of many ordinary "home" dishes by adding

Post Toasties

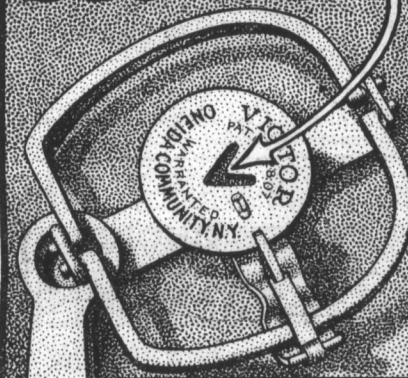
The little booklet, "GOOD THINGS MADE WITH TOAST-IES," in pkgs., tells how.

Two dozen or more simple inexpensive dainties that will delight the family.

"The Memory Lingers"

Postum Cereal Company, Ltd.
Battle Creek, Mich.

See the V



And Make \$25 a Week Trapping this Fall. VICTOR TRAPS

are sure to go and sure to hold. Every genuine Victor Trap is pierced with a "V". Ask your Dealer. Insist on the "V".

MORE EGGS

More eggs this Fall and Winter if you adopt my new poultry and egg method. Two years ago I discovered and perfected the most successful and profitable poultry method known. The secret of how to make one hundred hens lay eighty eggs a day. Sent on FREE TRIAL; guaranteed to make the hens lay before you pay. **MRS. L. ALLEY, Box D, New Madrid, Mo.**

WE will have a few chicks to sell from Barred and White Rocks, Buff and White Orpingtons, Black Minorcas and White Leghorns. Write for prices. **H. H. KING, WILLIS, MICHIGAN.**

White Wyandottes—The Franklin Strain. Established 1895. **A. FRANKLIN SMITH, R. F. D. No. 9, Ann Arbor, Mich.**

WHITE HOLLAND & Buff Turkeys both toms & hens. S. C. White Leghorns, Barred Rock Cockerels & pullets at reduced prices. **B. C. Raymond, Dansville, Mich.**

S. C. BROWN LEGHORNS—A fine lot of cockerels for sale at \$1 each and up. Females all sold. **LEWIS T. OPPENLANDER, R. No. 4 Lansing, Mich., successor to Fred Mott.**

WHITE HOLLAND TURKEYS—Toms \$4.00, hens \$2.00. **Lelah Mitchell, R. No. 2 Box 105, Hart, Michigan.**

DOGS.

YOU WRITE W. J. ROSS, Rochester, Michigan, for those beautiful sable and white Collie Puppies, of the finest breeding, and from stock workers.

TRAINED foxhounds and hound pups for hunting fox and coons. Also collies. Inquire 2-cent stamp. **W. E. LECKY, Holmesville, Ohio.**

FERRETS.

5,000 Ferrets Always buy Michigan ferrets, they are stronger and better climated. Price list and cir. free. **DeKleine Bros., Box 41, Jamestown, Mich.**

THE FEAR OF HUMBUG

Prevents Many People From Trying a Good Medicine.

Stomach troubles are so common and in most cases so obstinate to cure that people are apt to look with suspicion on any remedy claiming to be a radical, permanent cure for dyspepsia and indigestion. Many such pride themselves on their acuteness in never being humbugged, especially in medicines.

This fear of being humbugged can be carried too far, so far, in fact, that many people suffer for years with weak digestion rather than risk a little time and money in faithfully testing the claims made of a preparation so reliable and universally used as Stuart's Dyspepsia Tablets.

Now Stuart's Dyspepsia Tablets are vastly different in one important respect from ordinary proprietary medicines for the reason that they are not a secret patent medicine, no secret is made of their ingredients, but analysis shows them to contain the natural digestive ferments, pure aseptic pepsin, the digestive acids, Golden Seal, bismuth, hydrastis and nux. They are not cathartic, neither do they act powerfully on any organ, but they cure indigestion on the common sense plan of digesting the food eaten thoroughly before it has time to ferment, sour and cause the mischief. This is the only secret of their success.

Cathartic pills never have and never can cure indigestion and stomach troubles because they act entirely on the bowels, whereas the whole trouble is really in the stomach.

Stuart's Dyspepsia Tablets taken after meals digest the food. That is all there is to it. Food not digested or half digested is poison as it creates gas, acidity, headaches, palpitation of the heart, loss of flesh and appetite and many other troubles which are often called by some other name.

They are sold by druggists everywhere at 50 cents per package.

"MICHIGAN FARMER" BRAND FANCY CHOICE COTTON SEED MEAL

43 to 48 per cent Protein.

Has no equal. There is no other like it. It's in a class by itself. In actual feeding value it is

Worth \$3 to \$5 ton over other Meals.

One per cent of protein in a ton of cotton seed is worth at least 75c to the feeder. "Michigan Farmer" brand contains 3% to 10% more protein than any other meal on market.

Do not let your dealer fool you

Insist on having "Michigan Farmer," the old reliable brand. A big yellow tag with complete analysis on every bag. Its handled by the best dealer in every town. If your dealer will not supply you "Farmer" brand do not take a substitute but write us, we will ship you direct and save you money. Ask for prices.

THE BARTLETT COMPANY, JACKSON, MICH.
Cotton and Linseed Meal.

ALAMO Gas, Gasoline, Distillate and Kerosene ENGINES
For operating all kinds of farm machinery, pumping, feed grinding, wood sawing, etc., or generators for home or farm lighting.

Send for our "Electric Light for Country Home or Farm" or for our Standard Engine Catalogue.
ALAMO MANUFACTURING CO.,
102 South St., Hillsdale, Michigan.

BOWSHER
(Sold with or without elevator)
CRUSH ear corn (with or without shucks) and GRIND all kinds of small grain. Use Conical Shape Grinders. Different from all others.
LIGHTEST RUNNING.
(Our Circular Tells Why.)
Handy to Operate. 10 Sizes—2 to 25 H. P. One size for wind-wheel use.
Also Make Sweep Grinders, both Geared and Plain.
D.N.P. Bowsheer Co.
South Bend, Ind.

MENTION THE MICHIGAN FARMER when writing to advertisers.

THE DAIRY

CONDUCTED BY COLON C. LILLIE.

PUTTING CORNSTALKS INTO THE SILO.

I have my barns full of hay; no place to put my cornstalks. Now would it do to cut them up and have them run into the silo? I have a square silo built of wood, double walls. Have decided to husk my corn, then, if the stalks would keep all right in the silo, they would be very handy to feed.

Allegan Co.

J. H.

I would like to ask in regard to husking the corn from the stalks and putting the fodder into the silo with the silo filler. Would the fodder be better in the silo than to feed it out of the bundle? I didn't get my silo full with the silo corn and would like to fill it with the rest of my stalks if it will be better, or as good. When the stalks are dry how much water should be put in with it? The corn was cut quite green and is now in the shock.

Calhoun Co.

SUBSCRIBER.

Although I never tried putting cornstalks into the silo, because I never had the silo room, (we always filled the silo with green corn), yet I know of people who have done this and are well satisfied with the results. There isn't any doubt but what you can get greater feeding value out of your cornstalks by putting them into your silo than you can by attempting to feed them in their natural, normal condition. I would not expect that all the stalks would be eaten clean as they would when the corn is put in green, because much of this is not as digestible as it would be put in green, yet all the leaves and the smaller portions of the stalks and husks will so soften by the heating and slight fermentation of the silo that the cattle will eat them and will get a much greater feeding value out of them than as though they were fed dry. But to put them into the silo and have them settle well and make ensilage, you must use considerable water with these dry stalks. It is difficult to tell just how much to use. You will have to use your own judgment. You want a sufficient amount of water to take the place of all of the natural corn juice that has evaporated. Now, how much will this be? There should be a stream as large as a good sized lead pencil running into the ensilage cutter, or into the blower or carrier part, continuously. This can best be accomplished by having a barrel elevated above the ensilage, or to the side of the ensilage cutter opposite the door, with a faucet so that a stream of water can be controlled and run by means of a small hose from this faucet down to the air take of the blower. This air take of the blower will draw in the stream of water, break it into a mist, mix it with the ensilage and wet it up thoroughly. It will pack, settle in the silo and come out in first-class condition. This is much better than it is to fill into the silo for a time and then turn on the hose and wet it down, because the water doesn't get to all of the different portions of the cut stalks and some of them will dry mould, while if the water is allowed to run into the blower continuously when you are cutting the stalks, all of the stalks become moist and then they settle down and exclude the air and make fairly good ensilage. I have no doubt but what the cornstalks will be worth much more handled in this way than they will if you attempt to feed them in their normal condition, because we know that much of them will never be eaten if fed dry.

COST OF A CREAMERY.

Please give me an estimate of the approximate cost of the equipment of a creamery. There are now about 500 cows we can reach and the number will undoubtedly double in the future. Twelve silos are being erected now in my immediate neighborhood, and more will be until there is one on every farm, I think. Have got a splendid location with ample slope, bordering on a creek on the west, and on the street on the south. Will have the co-operation of all now, while at this time last year I had but five or six.

Leelanau Co.

I. G.

This question is being asked almost constantly, and while I have answered it in a general way a great many times, I have taken the pains now to consult an experienced, practical man and also catalogs of creamery supplies, so as to give the answer a little more in detail. Of course, one cannot say very much about the cost of a building, because much depends upon the kind of a building and the material out of which it is built. You can put almost any amount of money in a building that you wish, and yet a comparatively cheap one will answer the purpose. You want a building about

28x40 feet. A good substantial building that will answer every purpose can be built for \$1,500 or less.

Equipment:—You want a No. 6 churn with a capacity of 900 lbs. of butter, which will cost \$200; one 400-gal. ripener, \$250; a pasteurizer and cooler, \$390; a receiving vat, 400 gallons, \$70. Set of five-beam scales, \$30; Torsion balance for testing cream, \$18; 24-bottle tester and glassware for same, \$40; set of moisture scales, cup and lamp complete, \$15; 20 horsepower boiler and 10 horsepower engine, \$300; ten bbl. galvanized tank, \$16; sanitary rotary pump, \$27. Then you will have to have some supplies to begin with and \$150 will be none too much to estimate for the supplies with which to start the creamery. This is the estimate for a gathered cream plant. There is no centrifugal separator. If you have a whole milk plant you will have to add about \$500 for a separator. Many creameries get along at first without a pasteurizer and cooler. This would save in the neighborhood of \$400. In order to have the best control of the raw material, a pasteurizer is necessary and you ought to put it in on the start. This would make the total cost of the creamery, building and equipment, about \$3,000, but it would be first-class in every respect. I presume a building that would answer the purpose could be built for \$1,000, or possibly less than that.

SOME MORE SILO QUESTIONS.

I take much interest in your articles in the Michigan Farmer and would like to ask you a few questions about the silo. We have just erected a stave silo and have it filled. It has leaked at the bottom between staves and foundation. Would this indicate that the corn was put in too green, or would there be juice enough to allow some to leak out? What effect is it likely to have on the ensilage? If it will injure the food value how do you think it can be prevented next year? I cemented outside of staves but put nothing on the inside as I could see no way of tightening the bottom hoop if I were to cement inside. I have followed the advice given in The Farmer and used mostly eared corn. Now some dairymen who have used the silo for five or six years are using the silo corn, which grows very large stalks, but which does not mature ears, and they claim to be getting good results. I am rather puzzled to know how both can be all right.

Manistee Co.

T. K.

It is almost impossible to get a stave silo tight enough around the bottom but what the juice of the corn will press out. In fact, it is almost impossible to get any silo tight enough to prevent the juice coming through. There is a great deal of pressure in the bottom of the silo. If there is the least crack or crevice that the juice can be forced through, it will be done from this pressure. You want your silo as tight as you can get it because the tighter it is the better the corn silage will be preserved, and yet there is no particular harm done in part of this corn juice oozing out. The corn would have to be quite ripe and dry, in fact, too much so, if there was not an excessive juice in the bottom of the silo. While, on the other hand, if the corn is too green there is a great excess of corn juice in the bottom. One year frost came before my corn got anywhere near mature and we had to put it into the silo green. That year there was so much of the corn juice that pressed out through the bottom door of the silo that it ran for several feet. This corn was too green to make good silage, but it was the best we had that year. Ordinarily, there is very little juice that is pressed out, sometimes a little in the chute. A small amount of juice being pressed out does not harm the ensilage very much, the depreciation in food value would be exceedingly small and I don't think that T. K. need to worry about this part of it. The only way he can prevent it next year, of course, is to have a perfectly air tight and water tight silo and, as I say, this is almost impossible with a stave silo set on a cement foundation. Next year some of the juice will press out through the bottom of the staves because they will shrink some and leave openings, but as soon as they absorb enough of the juice of the corn, the staves will swell up again, making it tight and will keep the ensilage almost perfect.

As I have explained many times through The Farmer, where one wants the best kind of ensilage, the kind requiring the least amount of supplementary grain, he wants to give the corn plenty of room so that it will mature good sized ears. On the other hand, if you want to raise a large amount of forage to the acre, and are willing to feed a liberal amount of grain with this, grow a larger kind of corn and get more tons to the acre. In this case, however, it is not necessary to grow a large southern corn.

SEND NO MONEY AWAY For Cream Separators

Send no money away on anybody's "game." Pay no freight. Waste no time on complicated cream separators. No need to. You can have a Sharples Dairy Tubular Cream Separator, free of cost, for a thorough trial—and you know that Tubulars are

The World's Best Cream Separators

Tubulars are guaranteed forever. Back of that guaranty stands the oldest separator concern in America and the largest in the world. We can make that guaranty because Dairy Tubulars produce twice the skimming force of common separators and, therefore, neither need nor contain the complicated parts all common machines must have. This makes Tubulars vastly simpler, vastly more efficient, vastly more durable than common separators. Ask for free trial of a Tubular. Later than and different from all others. Catalogue No. 152 tells all about Tubulars. Write for it.



Dairy Tubulars are self-cleaning. No oil holes, tubes or cups.

30 Yrs
Sharples

THE SHARPLES SEPARATOR CO.
WEST CHESTER, PA.
Chicago, Ill., San Francisco, Cal., Portland, Ore.
Toronto, Can., Winnipeg, Can.



SUPERIOR SANITARY CHURNS

Will not absorb moisture, therefore are sanitary. Barrel is Finest Glazed Stoneware. Top is heavy clear glass. Sealing Ring is Rubber. Can be removed and washed. Bearings are steel and churn moves on wheels. Cost more and worth more than other churns. Easily operated and cleaned. See your hardware dealer or write

Superior Churn & Mfg. Co.
Northville, Michigan, Dept. A.

More Profit in Stock by
Using STAR GRINDERS.
Fresh Feed—Fat Stock
—Full Purse.

Star Grinders, sweep or belt, make more money for the farmer than any other implement. They save grain, time and money. They make the best feed. The cost is small, the results large. Booklet on feeding and Star Grinders free. Write to-day for prices and terms.
THE STAR MANUFACTURING CO.
11 Depot St., New Lexington, O.

Will You Accept a
Bull Dog Feed Grinder
On 10 Days' Trial?

We don't ask you to take our word for what it will do. Just prove its worth to you by actual use. Write for catalog today, and select the grinder you want.
CROWN POINT MFG. CO.,
133 E. Road. Crown Point, Ind.

Owl Brand Cotton Seed Meal

41 Percent Protein Guaranteed

Standard for 35 Years.
Corn can't replace cottonseed meal. Animals need Protein. Feed a balanced ration. Write for our booklet "Science of Feeding."
F. W. BRODE & CO., Memphis, Tennessee—Established 1875

HARRIS STEEL CHAIN HANGING WOODLINED STANCHIONS AND SANITARY STEEL STALLS.

Send for our new catalog which shows photographs of some of the most up-to-date barns in the country. You will be convinced that we make the very best there is at the lowest price.
THE HARRIS MFG. COMPANY,
816 Cleveland Ave., Salem Ohio.

CHALLENGE CHURN FREE. AGENTS WANTED
Absolute Guarantee that the CHALLENGE CHURN will make good butter easy in from 1 to 5 minutes. Write today and get one FREE. Address Dept. J.
THE MASON MFG. CO., CANTON, OHIO.

GRAND RAPIDS VETERINARY COLLEGE
OFFERS A SHORT COURSE for herdsmen, dairy farmers and cow testers, beginning JANUARY 4th, and continuing four weeks. Write for catalog and information to the VETERINARY COLLEGE, Department B, Grand Rapids, Michigan.

FACTS CONCERNING MILK TESTING. SELLING MILK VS. SELLING CREAM
—BEST COWS TO KEEP.

The purpose of this article is to make plain a few facts concerning milk tests which are not sufficiently well understood by a great many milk producers.

In the first place, what do we mean by a 3.5 per cent test? Everybody knows that milk testing 3.5 per cent is richer than that testing 3.0 per cent, but the important thing to know is that milk testing 3.5 per cent contains 3.5 pounds of butter-fat per hundred pounds of milk. Likewise milk testing 4.0 per cent contains four pounds of butter-fat per hundred pounds. That is, the percentage reading obtained with the Babcock test represents the number of pounds of butter-fat in one hundred pounds of the product tested. Thus 120 pounds of milk testing 3.8 per cent contains 1.20×3.8 , or 4.56 pounds of butter-fat.

The question is also often asked, what is the difference between butter and butter-fat? Butter is principally butter-fat, with water, salt and curd additional. The amount of butter-fat in butter averages close to 83 per cent.

Because of the fact that butter contains water, salt and curd, milk and cream will yield more butter than butter-fat. The difference between the yield of butter and butter-fat is known as the over-run, which simply means butter in excess of butter-fat.

In figuring the over-run it must be remembered, however, that about $3\frac{1}{2}$ per cent of the total butter-fat in the milk is lost in the skimming and churning process. A lot of, say, 150 pounds of milk testing 4.0 per cent would produce a theoretical over-run as follows: $150 \times .04 = 6$ pounds butter-fat; 6 less a $3\frac{1}{2}\%$ loss in skimming and churning leaves 5.73 pounds of butter-fat to be made into butter. $5.73 \div 0.83 = 6.97$, the number of pounds of butter. $6.97 - 6 = 0.97$, the over-run in pounds; $(0.97 \div 6) \times 100 = 16.16$, the over-run in per cent.

At creameries and cheese factories the question continually comes up as to the causes of variations in the test. These causes, if better understood by the milk producers, would relieve butter and cheese makers of much unnecessary trouble.

In the first place, the composition of the milk of all cows undergoes a change with the advance of the period of lactation. During the first five months after calving, the test remains practically the same; after this, as a rule, the milk becomes gradually richer until the cow is dry.

The quality of the milk also differs with different breeds. It is well known that Holstein-Friesian milk averages lower in test than either Jersey or Guernsey milk. Even in the same breed there is a wide variation in the test of the milk from individual cows. It is inherent in some cows to produce rich milk, in others to produce poor milk. Some Holstein cows test as low as 2 per cent, while others test 4.0 per cent and not a few have approached the 5.0 per cent mark.

When cows are only partially milked they yield poorer milk than when milked clean. This is largely explained by the fact that the first drawn milk is always poorer in fat than that drawn last. Fore (first) milk may test as low as 0.8 per cent while the strippings may test 14 per cent. It is therefore important to get as much of the milk as can be secured readily.

Fast milking increases both the quantity and the quality of the milk. It is for this reason that fast milkers are so much preferred to slow ones.

The richness of the milk is also influenced by the time that elapses between milkings. In general the shorter the time between the milkings the richer the milk. This, no doubt, in a large measure, accounts for the difference we often find in the richness of morning's and night's milk. Sometimes the morning's milk is the richer, at other times the evening's milk, depending largely upon the time of day the cows are milked.

Starvation not only affects the quantity but the quality of the milk as well. It has been repeatedly shown that under-feeding to any great extent results in the production of milk poor in fat.

Sudden changes of feed may slightly affect the richness of milk, but only temporarily. So long as cows are fed a full ration the test of the milk remains practically the same, regardless of the kind of feed fed.

The quality of the milk is also affected by unduly exciting the cows, by irregularities of feeding and milking, and by exposure to heat, cold, rain, flies, etc.

Wisconsin.

JOHN MICHELS.

My creamery man offers to buy my milk at \$1.25 per 100 lbs., and pay me for the butter-fat, also pay drawing of the milk. At present I am selling my cream. What I wish to know is this, which would return me the most, to sell my milk and butter-fat, or to do as at present, sell my cream, and have the warm milk for hogs and calves? If I sell my milk and cream what cows do you think would be the best for me to keep? It seems to me that by selling my milk at the above price and receiving the market price for the butter-fat the milk contains, it would be much better to sell the milk.

Calhoun Co.

SUBSCRIBER.

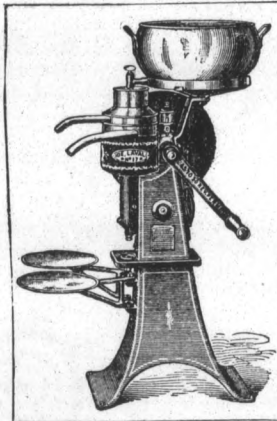
There is usually little to be gained by selling milk in preference to selling cream, because usually the price of milk is figured on a basis of the price of butter-fat, the same as cream. If a man buys milk for so much a hundred, he makes the price a hundred according to the price and amount of butter-fat. Ordinarily a man would get a little more per pound for butter-fat if he sold the whole milk than he would if he sold cream, but with the cream he has the skim-milk, which is worth from 20 to 40 cents per 100 lbs., to feed on the farm to young growing calves or pigs. The farmer too often does not take the value of skim-milk into consideration. If he did, not so many would sell milk. I cannot tell whether \$1.25 a hundred is a good price for your milk or not, not knowing the quality of the milk. It all depends upon the per cent of butter-fat in the milk. Many people are getting more than \$1.25 a hundred for their milk, but it is usually rich milk, milk that contains from four to five per cent of butter-fat. What makes it valuable is the extra amount of butter-fat and other solids which the milk contains. According to subscriber's letter, if he sells the milk, the milk is picked up at his door and he does not have to pay for hauling. Usually where one sells milk he has to deliver it to the train or skimming station, or milk depot at a certain hour every day. This adds materially to the cost of production, but when he sells cream he only has about one-tenth of the bulk or weight to deliver. He does not have to deliver it as often and these things should be taken into consideration, especially in the winter time when the roads are bad. If you sell market cream for city consumption and have to deliver it every day, this also should be taken into consideration, or if you sell to a creamery in the winter time you only have to deliver it every other day, or possibly three times a week, or only twice each week, and this also is much less work and one could afford to take a little less for the cream. Where a farmer wants to raise his own calves, the sweet skim-milk is quite an important factor and should be taken into consideration.

Now as to the kind of cows to keep where one sells milk or cream. In my judgment it matters very little about the kind of cow, whether you are selling milk or cream. I would use the dairy breed that suited me best and then I would sell the milk or cream for what I considered the best market and to the best advantage. The value of a dairy cow depends upon economy of production, because a cow gives a large mess of milk is no sign that she produces that milk cheaper than a cow that gives a lesser quantity, and because a cow gives rich milk is no sign that she will produce butter-fat cheaper than one that gives a larger quantity of thinner milk. One cow is bred to produce large quantities of milk that contain a small per cent of butter-fat, another cow has been bred to produce a richer milk and consequently she gives a less quantity. Now the cow that will take a dollar's worth of the farmer's feed and turn it into milk or butter-fat at the greatest profit is the best cow. You will find that there is as great a difference in individuals of the same breed as in animals of different breeds. Consequently, the farmer should select the breed that he likes best and then keep selecting out the individuals that will produce most economically. In a few years he will have a most excellent herd, no matter what breed he selects.

The cost of production is reduced more in cutting seconds and minutes from the chores that are repeated each day or twice each day for seven months of the year, than by the saving of a man's work when filling the silo, through some mechanical device. Study your stables, determine where short cuts can be made, and make them. An additional door or hay chute, or a more convenient feed store may be easily installed.

Where Do You Stand
on the Cream Separator
Question?

It does not seem possible that anyone can doubt the advantages of a good cream separator over any gravity setting process.



The U. S. Government, every State Experiment Station, every successful creameryman and every well-informed dairyman settled that question long ago. All agree that a good cream separator will give you from 20 to 35 per cent more and much better cream, and besides will give you warm, sweet milk for your calves.

If you have one or more cows and are selling cream or making butter, a good cream Separator

of proportionate size will be the most profitable investment you ever made.

If you haven't a separator why do you hesitate?

Are you in doubt as to which separator you ought to buy? Are the claims made by different separator people confusing?

Listen to this proposition:

Have a DE LAVAL Cream Separator sent out to your farm. Set it up and try it for ten days. Try any other separator you may think of along side it; then after a fair trial buy the machine that

**Skims the cleanest
Turns the easiest
Is easiest to wash
Is best constructed**

We know that the DE LAVAL will give you better service and last twice as long as any other separator on the market. We ask nothing better than that you try out the DE LAVAL along side of any other machine that was ever built. That means more to you than reading volumes of printed claims. Be the judge yourself—not of the claims we make or that anyone else makes, but of the machine itself.

Be fair to yourself. Give your cows a square deal. Drop us a line and ask us to tell you more about the

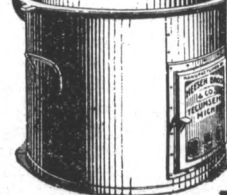
DE LAVAL

THE DE LAVAL SEPARATOR CO.

165-167 BROADWAY NEW YORK 42 E. MADISON STREET CHICAGO DEUMM & SACRAMENTO STS. SAN FRANCISCO
178-177 WILLIAM STREET MONTREAL 14 & 16 PRINCESS STREET WINNIPEG 1016 WESTERN AVENUE SEATTLE

Get DOUBLE VALUE from Your Feed

25,000 stock raisers testify that cooking doubles the value of raw feed. Warm cooked feed keeps stock sleek, fat and healthy—prevents hog cholera. You will SAVE Money and MAKE Money with a



Heesen Feed Cooker

Made in two parts only—a strong cast iron caldron kettle and seamless sheet steel jacket. Quick-heating—everlasting. Burns any fuel, outdoors or in cellar. "No farm complete without Heesen Cooker," says D. Polhemus, N. Y., "it saves me 50c on every dollar's worth of feed." "Pays a handsome profit to cook feed for our hogs," says A. B. Nokes, Ill. We will send you scores of other proofs. Write today for prices.

HEESEN BROS. & CO., Box 65, Tecumseh, Mich.

**THIS
AD
GOOD
FOR
25c.**

on the purchase of any Heesen Feed Cooker Cut this out or mention this paper in writing. No 65

ELKHART BUGGIES

The Largest Manufacturers in the World Selling to the Consumer Exclusively We ship for examination and approval, guaranteeing safe delivery and also to save you money. May We Send You Our Large Catalogue? Elkhart Carriage & Harness Mfg. Co., Elkhart, Indiana



The Michigan Farmer

ESTABLISHED 1843.

THE LAWRENCE PUBLISHING CO.,

EDITORS AND PROPRIETORS.

39 to 45 Congress Street West, Detroit, Michigan.

TELEPHONE MAIN 4525.

NEW YORK OFFICE—41 Park Row.
CHICAGO OFFICE—1736 First Nat'l Bank Building.
CLEVELAND OFFICE—1011-1015 Oregon Ave., N. E.
GRAND RAPIDS OFFICE—5 & 6 New Hawkins Building.

M. J. LAWRENCE.....President.
O. E. YOUNG.....Vice-President.
E. H. HOUGHTON.....Sec.-Treas.

J. R. WATERBURY.....Associate Editor.
O. E. YOUNG.....Associate Editor.
BURT WERMUTH.....Associate Editor.
ALTA LAWSON LITTLE.....Associate Editor.

E. H. HOUGHTON.....Business Manager

TERMS OF SUBSCRIPTION:

Five Years 260 Copies Postpaid **\$2.00**
Three Years, 156 Copies, Postpaid **\$1.50**
One Year, 52 copies, postpaid.....75 cts.
Six Months, 26 copies, postpaid.....41 cts.
Canadian subscriptions 50 cents a year extra for postage.

Always send money by draft, postoffice money order, registered letter, or by express. We will not be responsible for money sent in letters. Address all communications to, and make all drafts, checks and postoffice orders payable to, the Lawrence Publishing Co.

RATES OF ADVERTISING:

40 cents per line agate measurement, or \$5.60 per inch, each insertion, with reasonable discount on orders amounting to \$20 or over. No adv't inserted for less than \$1.20 per insertion.
No lottery, quack doctor or swindling advertisements inserted at any price.
Entered as second class matter at the Detroit, Mich., postoffice.

COPYRIGHT 1910

by the Lawrence Pub. Co. All persons are warned against reprinting any portion of the contents of this issue without our written permission.

WE GUARANTEE to stop THE MICHIGAN FARMER immediately upon expiration of time subscribed for, and we will pay all expenses for defending any suit, brought against any subscriber to The Michigan Farmer by the publisher of any farm paper, which has been sent after the time ordered has expired, providing due notice is sent to us, before suit is started.

Avoid further trouble, by refusing to subscribe for any farm paper which does not print, in each issue, a definite guarantee to stop on expiration of subscription.

The Lawrence Pub. Co.,
Detroit, Mich.

DETROIT, OCT. 22, 1910.

CURRENT COMMENT.

In speaking or thinking of items of farm equipment, the average farmer will always call to mind the larger items of farm equipment, such as the implements and machinery employed in the doing of the farm work. The small tools needed on the farm, and which are to be found on the well-equipped farm, will scarcely ever come to his mind in this connection. This point was forcibly brought out by some work recently done by the Ohio Experiment Station in co-operation with the United States Department of Agriculture. In order to arrive at some definite conclusion in this matter, careful inventories were taken on 33 Ohio farms, and in each case the owners were asked to estimate the value of the small tools included in the farm equipment. In practically every case the actual value of the small tools to be found upon the well-equipped farm exceeded the "guess" of the farmer very largely, being greater by about 500 per cent on the average than the estimate placed on them by the owners. It was found that the value of the equipment which was included under the term of "small tools" would cost from \$200 to \$300 on the average Ohio farm. An interesting phase of this investigation was the fact that upon farms where inventories are regularly taken these tools were generally bunched under the head of "other small tools" and given an estimated value far below their actual value, either from the standpoint of cost or their value in the operation of the farm.

In the result of this investigation there would seem to be a valuable lesson for the average reader. It seems to indicate that the average farmer has a very dim conception regarding the actual equipment of his farm in this regard. If this is as universally true as it appears to have been upon the Ohio farms investigated, it would certainly be a good thing for the average farmer to take stock of the "small tools" to be found upon his farm, and then to study the proposition carefully to determine whether his equipment in this line is adequate to his needs. Obviously it is good business sense to have a sufficient equipment of these small tools to enable the workmen employed to accomplish the work to be done with the greatest possible degree of despatch and efficiency. It is undoubtedly

a matter of economy to have a sufficient supply of forks, shovels, spades, hoes, saws, axes, planters, and other small hand tools of a similar character to have the proper tool for the work always at hand, and thus avoid the necessity of borrowing from the neighbors or making trips to town in the busy season to supply the deficiency as the particular tool happens to be needed, or else handicap the workman by compelling him to use a tool not adapted to the purpose in hand. In like manner there should be at hand the more common of the small tools frequently needed in making repairs to these same tools or to implements, machinery or harness, in order that expensive delays may be avoided and valuable time saved. Concrete illustrations might be given to cover a multitude of cases to which this advice would apply. But the farmer who takes this subject up in a thoughtful and thorough manner will be able to establish the connection between trivial needs of this kind, from the standpoint of the investment required, and the expensive result brought about indirectly by that need, as the poet has established the connection between the lack of a horse-shoe nail and the loss of a history-making battle.

Then, from another standpoint, this is an important subject for consideration upon the average farm. The very considerable cost of the needed equipment of small tools on the farm should give to this item of overhead expense a significance which is too often not accorded it upon the average farm. Not only should the needed small tools be at hand, but they should be of a quality which will make them efficient and lasting in service. They should also receive a degree of good care which will keep them always in condition for the most effective work. Then they should be systematically stored in convenient proximity to the places where they are most often needed, so as to avoid a waste of time in getting them and replacing them after they have been used. In fact, there is ample room for careful thought and study in this matter of the equipment of the farm with small tools in a suitable and economical manner. Something in this connection will depend on the line of farming followed, but most of us follow diversified farming, and the greater the diversity of our production the greater the need of considering this problem, for the greater will be our need of a proper assortment of small tools which go to make up the equipment of the well managed farm.

The Season's Potato Crop.

With the digging of the season's potato crop practically completed, the mind of the grower turns anxiously to the market in which he will have to dispose of the product. That growers have felt no small disappointment at the fall in prices which has occurred since the late stock commenced to move cannot be questioned. That they are just as anxiously studying the probabilities of the future trend of that market is a patent fact, and makes this a particularly pertinent topic for comment at this time.

Most potato growers have anxiously watched for the publication of the October report, which appeared in the columns of the last issue. This report showed the estimated condition of the potato crop of the country to be 71.8 per cent of normal, according to the figures compiled from the reports of correspondents of the Department of Agriculture. These figures are about midway between the estimates for a like date for last year and two years ago and nearly four per cent below the ten-year average for estimated condition of the crop on October 1. A continued fall of the price of the tubers notwithstanding this comparatively low estimate for the season's crop, makes the problem all the more confusing for the grower who has been figuring that the early market for potatoes would be good on account of the inevitable shortage in the crop which would result from the unprecedented summer drought which was felt so severely in Michigan. Let us for a moment undertake to analyze the situation, so far as it is capable of analysis from the facts and figures at hand.

In the first place, the late crop of potatoes was still very green when the digging season arrived, and they have not ripened very rapidly, even where left in the ground until the present time, since killing frosts held off so long and the vines have remained green. As a result the stock has not been in very good condition to market, and there has been no demand for the tubers for storage on this

account. The rushing to market of all the green stock that could be sold has not had a tendency to improve matters, and as a natural consequence prices have declined. While every reader who is interested in the potato market is aware of this fact it may be reassuring to a good many to contemplate this natural cause of a decline in prices and put them in a better frame of mind for the contemplation of the probabilities for the future.

There can be no doubt in the mind of the careful observer that the crop of potatoes in Michigan is better than was anticipated before the digging season arrived. The extremely favorable weather of the late fall was ideal for the development of the tubers and there is a very small proportion of little potatoes in the average field. But it is also practically certain that the acreage is not as large as it was last year, and reports from other sections of the country indicate that the average is still less in proportion as compared with last year. Then the reports received from some sections indicate that the yield will not be as good as it is in Michigan, and thus, while the final figures, which will not be available until November, may show an improvement over the condition of the crop indicated for October 1st, it would not seem probable that the crop would equal that of last year, if it does better than come up to the ten-year average. However, in the study of crop statistics it is important that one keep an eye on the heavier producing sections of the country which go in with the others in making up the average. In this case we find that the five largest producing states have an average condition for October 1st, which closely approximates the ten-year average for the country on October 1st.

The logical deduction to be obtained from these facts and figures is that the market is likely to be a weak and fluctuating one during the weeks which intervene before the figures for November are available.

With the clearing of the situation the market may be expected to become more active, and to reflect the sentiment of growers as well as buyers. It is, of course, impossible to make intelligent predictions regarding the future of the market at this time, but the prospect would seem to be at least an average one.

In figuring on the probable trend of the market, after more reliable figures are obtainable, some conclusions reached by a Colorado expert, may be of practical utility as well as interest. After studying figures of production and market values covering several years, this expert has come to the conclusion that the average per capita consumption of potatoes in the United States is about three and one-half bushels, and that when the aggregate crop for the country is estimated to equal or exceed the needs of consumption on this basis the wise grower will sell potatoes whenever he can get anyone to buy them, but that when it falls below the needs of consumers figured on that basis, especially following a year of low prices, it is the part of wisdom to hold for better prices. The weak point in this reasoning is that the country's population is a varying factor, and that the variation may cause a fatal error in the computation.

But it is certain that buyers are more wary after a market season such as we had last year, and the grower who has cellar storage for the major portion of the late crop will make no mistake in being a firm holder, for the present at least. A general exhibition of haste to market the crop on the part of growers will only aggravate the situation and postpone the day when better prices will prevail. The gradual marketing of any crop, especially of a perishable crop, is the best guarantee of an even and satisfactory market. Somebody must hold the major portion of the potato crop until it is needed for consumption, and speculators will do this only when there is every prospect of a rise in the market, hence they may be expected to play a waiting game, for the present at least, thereby compelling the conservative grower to do the same.

Movements of sheep and lambs in the big markets of the country have been much larger than common this year. An illustration of this fact is found in the figures showing the receipts and shipments at the Chicago market for September. These figures show that the receipts for September were 152,000 head larger than for

the same month last year, while the shipments exceeded those of last year by 157,000 head. This large movement of sheep may be ascribed partly to the fact that fewer sheep and lambs will be fed in Colorado and other western points this year than is usual, owing to the poor season for the alfalfa crop, and partly to the fact that some western owners have sold their flocks down much more closely than usual owing to the cheap values which have prevailed for wool this year in comparison with last. Without doubt, this large movement of sheep would have been disastrous to the business, had it not been for the fact that the fall rains have started up the pastures the country over, and the exceedingly favorable fall has enabled feeders to purchase liberally for winter feeding over a wide range of territory. But it is doubtful if sheep feeding will again be carried on in the west to the extent which it has been done in former years, for the reason that the increase in population has enlarged the market for home-grown agricultural products in that section with the result that the big ranges are being gradually but surely broken up and devoted to general agriculture. The dry farming propaganda has added to this tendency not a little, but the apparent fact that the future sheep industry of the country will find its center farther east is not a matter for discouragement. In fact, it is a matter for congratulation that the sheep feeders of the country have been able to take an aggregate increase of 400,000 sheep and lambs from the big markets, most of which have gone onto the farms of the country instead of into the hands of the purely speculative feeders. This means added fertility for the farms onto which this surplus of sheep have gone, and indicates that the farmers of the middle west are alive to the possibilities of the sheep business. It would also seem to promise well for the future of the sheep industry of the country, when the time arrives, as it must at no distant date, when the bulk of the lamb supply must be bred as well as fed on the farms of that section.

HAPPENINGS OF THE WEEK.

National.

One of the most hazardous attempts along the line of air navigation is the effort of Walter Wellman and a crew of five men to cross the Atlantic ocean in a dirigible balloon. Provisions and gasoline sufficient for a fifty days' journey were in the stores of the great air craft as it moved upward and outward over the sea from Atlantic City, N. J., last Saturday evening. The wireless equipment aboard enabled the crew to keep in touch with land as they swept along the shore to the northeast and by Monday morning 300 miles had been covered by the craft. The messages then reported all to be well on board and that they were still pushing forward.

The Gulf of Mexico and adjacent territory were swept by hurricanes the past week and a great deal of property was destroyed both in the boating and commercial facilities along the shores of the gulf and on the islands and mainland over which the storms passed. Cuba was an unfortunate sufferer as was also Jamaica. The Cayman Islands are said to be devastated. It is impossible to get reliable reports on account of the lines of communication being so badly interrupted by the storm.

The crashing together of two trains on the Charleston & Western railroad in South Carolina resulted in five deaths and 17 persons being more or less seriously hurt.

Senator Jonathan P. Dolliver, of Iowa, died suddenly Saturday last of heart disease. Up to the time of his death he was in a cheerful mood. But a few hours before the tragic end he expressed to friends plans for the future while seated beneath trees in his garden, where he had before rehearsed some of his speeches which made him famous as an orator. Arrangements are being made to hold the funeral service in the open air. Famous ministers are asked to be orators on the occasion.

It is asserted that land owners along the Huron river, where it was expected to develop power plants for the production of electricity are getting anxious over the recent extension of lines running from the Canadian power plants at Niagara Falls. Already 300 miles of lines are in operation over Ontario carrying the highest voltage so far in use, 110,000.

Fire destroyed the gypsum plant of the U. S. Company at Alabaster, Mich., and other property to the value of \$150,000, Sunday.

It is reported from the University of Pennsylvania that the germ producing infantile paralysis has probably been found. Dr. Smith, who publishes the information, has been corroborated by other eminent physicians.

Secretary Meyer, of the navy department, declared before western audiences that a large naval fleet is needed on the Pacific coast.

Governor Eberhart, of Minnesota, will ask a conference with the governors of Michigan and Wisconsin to determine on some method of controlling fires over the territory of the three states. The recent Minnesota fires are subsiding. The early reports of losses were greatly overdrawn—the number of deaths resulting probably

COMPO-BOARD THE MODERN WALL LINING

Better than plaster in every way; more sanitary, dryer and more durable; cheaper in the long run; can be put on in any weather; can't crumble and fall off; takes paper, kalsomine or paint perfectly.

Use it when you build or remodel and you will have walls and ceilings that will outlast your building. You will have walls that will keep in all the heat in winter, and save you practically half your fuel. Walls that can't be ruined by jamming chairs and furniture into them. Walls that are perfectly dry and in which disease germs cannot breed. Made in sheets 4 feet wide and from 8 to 18 feet long, any length you want in even feet.

Write for
FREE SAMPLE and BOOK

You ought to see just how COMPO-BOARD is made and find out its advantages and many uses.

**NORTH WESTERN
COMPO-BOARD CO.**
4205 LYNDALE AV. NO.
MINNEAPOLIS, MINN.

LEARN TO BE AN AUCTIONEER

EARN FROM \$15 TO \$100 PER DAY

Endorsed by the peer auctioneers of the world. Our thorough, scientific correspondence course, consisting of ten copy-righted bound volumes can be mastered in ninety days' home study, utilizing spare time. Send for beautiful forty-page catalog.

THE NATIONAL AUCTIONEERING SCHOOL OF AMERICA, 215 Funke Bldg., Lincoln, Neb.

MOUNT BIRDS

Learn by mail to mount animals, birds, fishes, heads, tax skins, snake rugs, etc. This beautiful interesting art easily learned by men, women and boys. Sportsmen—be your own taxidermist. Best methods, expert teachers, low cost. Success absolutely guaranteed or no charge. Big profits. You can double your income in your spare time. Free book on taxidermy and Taxidermy Magazine. Send TODAY. **NORTHWESTERN SCHOOL OF TAXIDERMY, 3637 Elwood Building, Omaha, Neb.**

Want a Pair of Roller Skates?

Every boy and every girl can now have a pair of Roller Skates without paying one penny for them. Send us your name and address, we will then send you 15 of our "Sepia" jewelry novelties; when sold at 10 cents each, send us the \$1.50 you collect and we will at once send you a pair of splendid skates. You can earn these skates in two hours.

DAVID J. KELLY, BRONX, N. Y.
735 E. 152d St.

FREE TO TRAPPERS!

FUR NEWS MAGAZINE, tells how to trap, hunt, skin stretch & grade furs, about baits, scents, dead-falls, snares, guns, dogs, camps, etc. Good stories, too. **SPECIAL**—Send 25c for 3 mos. trial subscription and get FREE 64-page Trapper's Guide & chart of all game, fur & bounty laws. **FUR NEWS PUB. CO., 52-54 W. 24th St., New York.**

TRADE—Hardware Store, city of 10,000. Invoice \$13,000. Doing big business. Will trade for farm. **H. HOPWOOD, Atty., Kenton, Ohio.**

PATENTS—START FACTORIES. Ask us how to obtain finance, and promote a Patent. Advice FREE. **FARNHAM & SUES Pat. Attys., WASHINGTON, D. C.**

25 ART POST CARDS 10c—Scenes, Landscapes, etc. **M. ART SALES AGENCY, Box 791, Chicago.**

AGENTS Wanted—Clean, straight proposition, free outfit and steady work, selling trees and plants. No investment required. Experience unnecessary. Highest commissions payable weekly. **Perry Nurseries, Rochester, N. Y.**

Please mention the Michigan Farmer when writing to advertisers.

not exceeding 40 persons. Liberal quantities of supplies are being rushed to the scenes of the fires, to relieve the survivors.

After long efforts secret service men have succeeded in gathering information pointing to the guilt of several parties in connection with land scandals in Alaska and a number of indictments have resulted from the work of the federal grand jury having under advisement the transactions concerning the transfer of certain Alaskan properties.

Michigan Central passenger trains are now using the double tube tunnel under the Detroit river at Detroit regularly. Freight trains have been handled through the sub-passage for many days past.

The regular convention of the Modern Woodmen of America was held in Detroit during the past week.

Foreign.

Decrees are being issued by the provisional government of Portugal to abolish the house of peers, the council of state and the titles of nobility, banishing the Braganza dynasty and secularizing charitable institutions.

The Spanish government is already convinced that too many members of religious orders are in the country and notice has been issued that foreigners must leave without undue delay or they will be expelled. The order is directed toward the influx of leaders and spiritual advisers from the societies in Portugal.

President Taft leaves his summer home at Beverly this week and goes to Washington to take up his regular duties at the federal capitol.

The Portuguese royalists are planning a strenuous campaign through which they hope to again get control of the country and restore King Manuel to the throne. Elections will be held this fall.

Railroad employes in France are out on strike. Electrical workers have gone out in sympathy with the railroad men.

Crown Prince George, of Serbia, is ill with typhoid fever.

GENERAL REVIEW OF CROP CONDITIONS.

The month of September was favorable for crops in general, taking the United States as a whole, an improvement during the month of about 1.0 per cent being shown, whereas there is an average decline in September of 0.8 per cent. Aggregate crop conditions in the United States on Oct. 1 (or at time of harvest) were about 1.8 per cent higher than on corresponding date a year ago and 0.4 per cent lower than the average condition on Oct. 1 (or at time of harvest) of the past ten years. The area under cultivation is about 3.2 per cent more than last year.

The aggregate of crop conditions in each state on Oct. 1 is given below; the first figure after each state indicates the average condition on Oct. 1, as compared with Oct. 1, 1909; the second figure indicates the condition on Oct. 1 as compared with the average on Oct. 1 of the past 10 years, 100 representing conditions a year ago in the first case, 100 representing the ten-year average in the second:

Maine, 126, 114; New Hampshire, 124, 112; Vermont, 119, 112; Massachusetts, 112, 103; Rhode Island, 109, 104; Connecticut, 115, 115; New York, 118, 108; New Jersey, 118, 110; Pennsylvania, 117, 105; Delaware, 127, 109; Maryland, 120, 104; Virginia, 111, 100; West Virginia, 93, 94; North Carolina, 110, 109; South Carolina, 104, 109; Georgia, 99, 103; Florida, 94, 100; Ohio, 100, 102; Indiana, 101, 107; Illinois, 100, 107; Michigan, 99, 100; Wisconsin, 82, 82; Minnesota, 88, 103; Iowa, 106, 102; Missouri, 107, 107; North Dakota, 36, 40; South Dakota, 82, 88; Nebraska, 99, 94; Kansas, 102, 99.

Kentucky, 101, 101; Tennessee, 110, 107; Alabama, 116, 111; Mississippi, 126, 108; Louisiana, 115, 103; Texas, 135, 104; Oklahoma, 121, 91; Arkansas, 129, 111.

Montana, 74, 86; Wyoming, 92, 100; Colorado, 80, 88; New Mexico, 76, 85; Arizona, 72, 80; Utah, 97, 101; Nevada, 132, 131; Idaho, 90, 96; Washington, 83, 81; Oregon, 103, 107; California, 114, 120.

Below is given the condition of certain crops on Oct. 1 (or at time of harvest)—100 representing for each crop, not its normal condition, but its average condition on Oct. 1, or at time of harvest, (ten-year average for most crops).

Corn, 102.4; rice, 102.3; cranberries, 102.3; lemons, 101.3; sorghum, 99.8; peanuts, 99.2; cotton, 98.9; sugar cane, 98.7; buckwheat, 98.1; sugar beets, 97.2; sweet potatoes, 96.7; tobacco, 96.6; potatoes, 95.0; oranges, 94.9; grapes, 86.4; apples, 86.2; flaxseed, 56.6.

The production of certain crops in 1910 expressed in percentage of the average production in recent years, (not compared with full crop), is estimated as follows:

Broom corn, 105.4; cabbage, 110.2; lima beans, 100.0; dry beans, 98.8; onions, 96.5; hemp, 95.5; kafir corn, 94.3; tomatoes, 93.7; clover seed, 93.6; millet seed, 85.7; millet hay, 84.7.

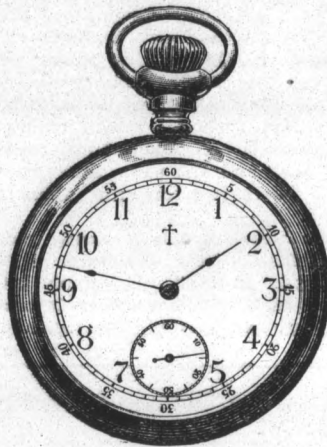
Crops that have already been estimated quantitatively are as follows:

Crops.	Yield Per Acre.		
	1910.	1909.	10-yr. av.
Wheat	14.2	15.8	14.1
Oats	31.9	30.3	29.5
Barley	22.4	24.3	25.7
Rye	16.3	16.1	16.0
Hay (tons)	1.34	1.42	1.44

Crops.	Production.	
	1910.	1909.
Wheat	691,769,000 Bu.	737,189,000 Bu.
Oats	1,096,396,000	1,007,353,000
Barley	158,138,000	170,284,000
Rye	32,088,000	32,239,000
Hay (tons)	60,116,000	64,938,000

A dealer in horses who is constantly receiving orders from Vermont for draft horses and medium-weight chunks says the eastern farmers are raising principally light harness horses for supplying the city demand for coach and carriage horses, while they depend on the west for commercial chunks for heavy traffic service.

Ingersoll-Trenton



If you are keen for true time-keeping, your watch-pocket should hold an Ingersoll-Trenton. City men rely on it; country men are rapidly awaking to its reliability and worth. Moreover, despite its fine construction, it is sold by 7,000 responsible jewelers at a price which all may afford—a price fixed at the factory and uniform everywhere.

This watch of quality—timed to the second and ready to run for a lifetime—is made with from 7 to 15 jewels, enclosed in nickel or fine gold-filled case, fully guaranteed as to accuracy and wear, and sold at from \$7 to \$15.

The next time you are near a good jeweler ask him to show you an Ingersoll-Trenton.

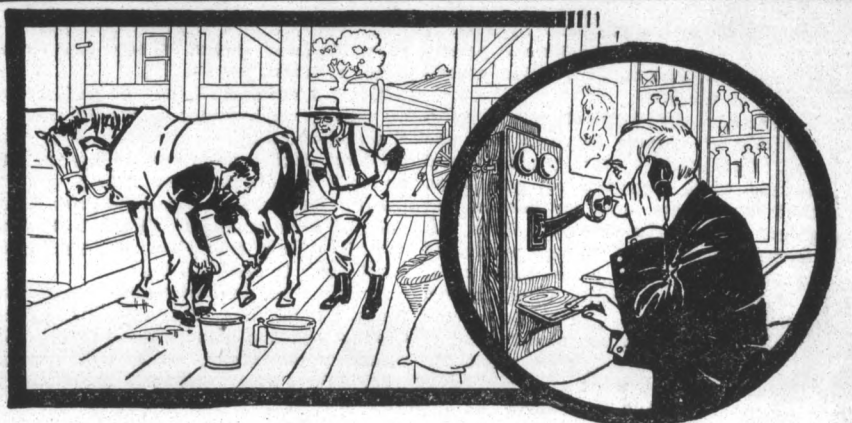
The minute you take it in your hand you will be sure you have found a real watch.

We would also like to have you write for our illustrated booklet, "How to Judge a Watch." It tells just how the Ingersoll-Trenton is made and what it will do in the way of timekeeping.

ROBT. H. INGERSOLL & BRO.

223 FRANKEL BUILDING

NEW YORK



Indispensable in Emergencies

THE sickness of a valuable animal on the farm demands prompt remedies.

It's a case for the veterinary—a case where minutes count. That's where the Bell Service shows its value to the farmer.

By means of the telephone the veterinary is reached, and he at once tells the farmer what to do until he arrives.

No far-sighted farmer gets along without the protection of the Bell Service.

He can never tell when it is going to save him from serious loss. Besides, he has daily proof of its usefulness.

Consult our local manager for rates.



Michigan State Telephone Company,

Detroit, Michigan.

200,000 TELEPHONES IN MICHIGAN!
Connections Everywhere.

HORTICULTURE

THE LESSER BULBS.

Nearly every woman loves flowers, be she city dweller or blessed with the flower grower's riches, room and pure air and plenty of fertilizer, as farmers' wives and daughters are. How does it come, then, that the yards of the city and suburb are bright with flowers all spring and summer while far too many farms have not a blossom to show, other than the lilacs grandma planted by the gate?

The notion is abroad that farmers wives must work so hard that flowers are too much of a luxury. The unconscious force of example is not before her eyes; therefore, neither are the flowers.

Is there a remedy? Yes, else why discuss the question? The remedy for lack

daring snowdrop; we have all read of it but surprisingly few in America have seen it, though in England it is as common as apple blossoms. Snowdrops bloom in March, early or late, according to the season. While patches of snow still whiten the shady places this flower-snow appears. Its white, three-petalled, drooping flower always seems to me a demure girl who has outwitted her stern father, Winter, and treads on his heels in her wedding gown. Of varieties, Elwes' Giant, about the best single, costs fifteen cents a dozen. Fifty cents' worth will give you the thrill of spring a month before the wild flowers bloom. Plant Snowdrops two inches deep and the same apart, near a window where you can enjoy them from indoors.

If you want a dainty spring picture, plant Scillas (Scilla Siberica) with the Snowdrops. Scilla is Snowdrop's bridesmaid, in dark blue, her starry flowers set all along her stems. Set scillas two

snowy blossom with its tiny gold centre edged with red. This is not a jonquil but a Poet's Narcissus. The true jonquil is a small flower of butter yellow, growing in clusters of four to six. They are like daffodils in shape, and sweet? O, my! Campenelle Rugulosus, at twenty cents a dozen, is a fine sort, but all jonquils are dears, and money spent for them comes back as pure gold every spring.

With the jonquils come Poet's Narcissus in their wonderful purity and fragrance. Their stems are longest of all except late tulips. The way they bow, but never break, in the spring wind, hold up their sweet faces to the cold rain and keep spotless amid swirling dust, gives one strength and courage. There are several varieties of the white Narcissus but Poeticus Ornatus is the best. It is an early bloomer, sweet as honey and of purest white. Twenty cents buys a dozen. If I could have but three bulbs I would have these, snowdrops and daffodils.

"And then my heart with pleasure fills
And dances with the daffodils."

How the dear, old, ever-new rhymes cluster round the dear old ever-new blossoms; and none, not even the rose, claims a richer heritage in literature than the daffodils. One sees them blooming year after year, on a few farms—great clumps with very few flowers. Don't blame the daffodils or think they are not worth while. They are starved. The miracle is that they bloom at all. A peck of manure around each clump in the fall and you would see a vast improvement. Like most bulbs, daffodils do not want to be moved often, which makes them ideal farm flowers.

There are daffodils of every shade from snow and cream to orange. Daffodils of all sizes, long cups and short, single and double. Named varieties cost from thirty to sixty cents a dozen but fine mixed ones, either single or double, can be had for twenty cents. Plant them six inches or more apart, with the tip of the bulb four inches deep.

Let your bulb bed have a southern exposure if possible. It hastens the blooms when every day seems a week to wait. Let a board fence, wall or building shelter these brave first fruits from cold winds. Send to some large seed house for their fall catalog, and order early. Plant as soon as the bulbs arrive and cover at Thanksgiving—not before—with about four inches of manure as it came from the stable—straw and all. In spring sow nasturtiums, poppies, petunias or alyssum among them, after the cover is removed in March. Your reward from bulbs is sure and so very rich and satisfying that the "bulb-biddy" will become a fixed institution on your farm.

Kent Co. GLADYS HYATT SINCLAIR.

GLADIOLUS SUFFER FROM IMPROPER CONDITIONS.

One of our subscribers recently sent leaves of her gladiolus plants which showed damage from some cause. The specimens were sent to Prof. Thomas Gunson, of our Agricultural College, who determines the trouble as rust and attacks of the red spider. Following is the reply in Prof. Gunson's words:

"The trouble with the gladiolus leaves is due to conditions rather than a malignant disease affecting the corms.

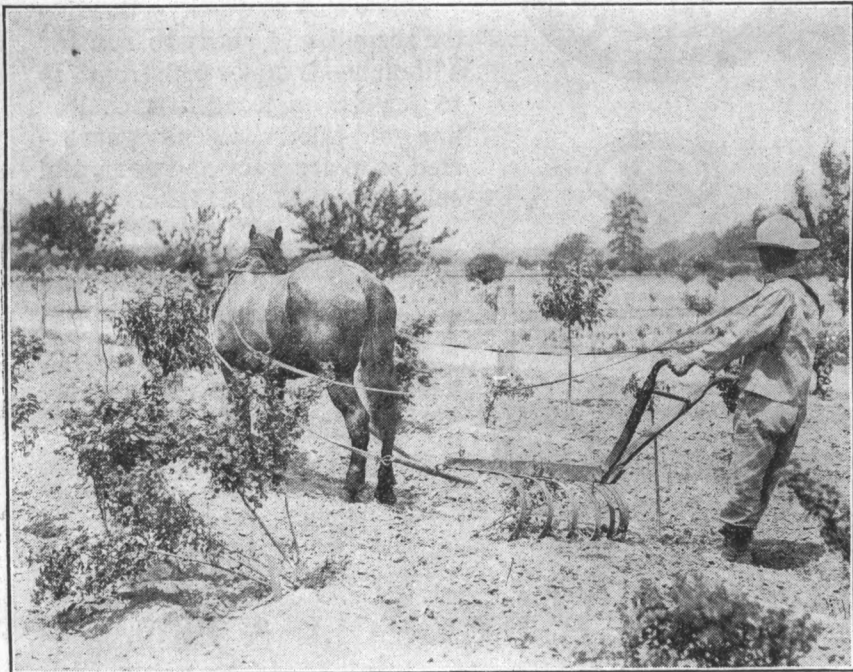
"One of the specimens showed rust spots. The other had, at some time, suffered from one of the common enemies of plants, especially in dry seasons, namely, red spider.

"Gladiolus delight in a deep, rich, moist soil, and in many parts of the state during the past season conditions were so dry, that all the early varieties failed to flower entirely. Later kinds had the benefit of occasional showers.

If your correspondent keeps the bulbs in a dry, cool place during the winter, looking them over once or twice during the resting period, and picking out all the partially ripened or 'shrivelled' bulbs, grading them in three sizes, and planting only the healthy, hard corms, she may have no further trouble.

East Lansing. THOS. GUNSON.

The standard barrel is the most common style of package. Some growers secure fancy prices for their fruit by packing it in bushel boxes, and this method should be encouraged. Good uniform apples carefully graded and packed in neat and attractive barrels will bring good prices on any market. Poor fruit packed in dirty barrels will prove demoralizing to any apple market. None but the best fruit will bring good prices whether packed in barrels or boxes.



What a fruit-belt horticulturist means by thorough cultivation. This has been an unusual season to impress the advantages of good tillage and careful spraying. Orchards receiving them are producing good crops, while others are barren of fruit. The average income from Michigan apple orchards during the season when the last state census was taken, was a few cents better than \$16.00 per acre. It should have been \$160. Cultivation and spraying are needed.

of water is a dust mulch, made by hoeing; and the growing of fine shrubs and perennials instead of sighing for coddled, short-season seed flowers.

The remedy for lack of money is a close study of several catalogs and one setting of chickens or turkeys, dedicated to flowers while they are yet cold eggs, hatched for flowers, sold for flowers and religiously spent for flowers. You will think you need other things worse, of course. Other things have that trick. But, if you stop to really think, aren't you richer with what you want, sometimes, than with what you need? And if we always go on spending so much for the things we don't want that we have nothing to spend for the things we do want, we shall get so out of the habit of taking enjoyment as to be like the dear old lady who went to heaven and when evening drew near, asked an angel to lend her a big apron for she must run down and feed the calves.

The remedy for lack of time and lack of strength is shrubs and bulbs—especially bulbs. Many a bare farm dooryard would blossom with beauty and many a flower-hungry woman would reap a fresh harvest of joy each year if the lesser bulbs were better known. I say the lesser bulbs because the greater ones, tulips and hyacinths are already quite familiar and also quite expensive; though tulips have dropped amazingly in the last few years. Splendid tulips, either the welcome earlies or the giant, long-stemmed lates, can be had for one dollar a hundred.

When a bulb bed is once properly made by spading deep and filling in with half of old manure, two hours work each spring and fall will care for it and one single dollar spent for bulbs each fall would soon make your house-border a living joy to yourself and an incentive to your neighbors.

But it is the lesser bulbs, the smaller and cheaper ones, that I wish were oftener met on farms. Less brilliant than tulips, less expensive than hyacinths, they are less of care, less liable to winter-kill and less given to race suicide; most of them producing babies enough each year to satisfy even a Roosevelt. To begin with, those earliest to bloom, the frail,

inches deep and a little farther apart, as they increase faster. They are twenty cents a dozen.

A third early bird, not so well known as these two, but blooming with them, is Chionodoxa, a newcomer from Asia. Chionodoxa Sardensis is one of the prettiest as well as cheapest at fifteen cents a dozen. Its stars of Alice blue grow at the ends of slender stems and lift their faces bravely up as if to show the March sky what color it ought to be.

Before this trio vanishes, Crocus appears. When one can buy by hundreds, Crocus is lovely, planted three inches deep right in the grass, as though growing wild. But when one has only two or three dozen they are best nestled in where they can gather all the sun's heat and we can easily gather in all their beauty. Each bulb throws up a cluster of from three to six blossoms close to the ground and surprisingly large for the time of year. They coquet shamelessly with sun and shade, opening or closing very swiftly. Take your choice of satiny yellow, blue, white or blue and white striped at fifteen cents. These are the largest bulbs. For ten cents a dozen, or eighty-five cents a hundred, you can get good Crocus bulbs for out-door planting, though the blooms will be a little smaller than those from the largest bulbs.

These will brighten the first half of April while the last half will add the starry blueish-white Triteleia Uniflora or Star Flower. It is not the clustered Star of Bethlehem, but a dainty, fragrant, wide-open blossom at the end of a long stem, not so large as Crocus flowers but more pickable and graceful. They, too, are fifteen cents.

Next will follow Dutch Roman hyacinths and jonquils. Not the "Grape Hyacinth" that seems always just buds, but a small, exact copy of the big, expensive hyacinths, with all their daintiness and fragrance, at forty cents a dozen. They come in light or dark blue, white, shell-pink or dark pink. Plant Dutch Romans about four inches deep and close together for a pretty show out-doors and sweet blooms for the table.

"Jonquils," to many people, brings a picture of a dollar-sized, six-petalled,



Established 1802

DYNAMITE FOR THE FARM

**Save Money
by Using it for**

Blowing out and splitting
up stumps—one process.
Blowing out and breaking
up boulders—one process.
Breaking up hard pan.
Making holes to plant
trees.
Loosening up the lower
soils in orchards.
Digging wells.
Digging holes for poles
and posts.
Digging ditches.
Draining swamps.

**RED CROSS DYNAMITE
IS THE IDEAL EXPLO-
SIVE ON THE FARM**

Ask your dealer for it

Write for Illustrated Catalogue

**E. I. du Pont de Nemours Powder Co.
Wilmington, Del., U. S. A.**



Roofing Nails

Allow for Shrinkage and Expansion
**Increase Life of Roofing
50%. Save you 2-3 Labor
Cost Less than Tin Caps**
ASK YOUR DEALER. Samples Free
**WEATHER-PROOFING NAIL CO.
BALTIMORE, MARYLAND, U. S. A.**

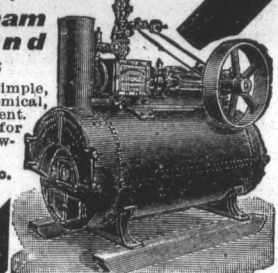
Get This Power

—Back to the old reliable Leffel Steam Power is the cry from hundreds of farmers who have used gasoline engines. There are many reasons. Let us tell you them.

LEFFEL Steam Engines and Boilers

have proven most simple,
dependable, economical,
durable and efficient.
Write postal now for
"The Farmer's Pow-
er." Address

**James Leffel & Co.
Box 249,
Springfield,
Ohio**



SAW YOUR WOOD



With a FOLDING SAWING MACHINE. 9 CORDS by ONE MAN in 10 hours. Send for Free catalog No. E24 showing low price and testimonials from thousands. First order secures agency. Folding Sawing Mach. Co. 158 E. Harrison St., Chicago, Ill.

Don't Wear a Truss

FREE STUART'S PLAS-TR-PADS are different from the painful truss, being made self-adhesive purposely to hold the rupture in place without straps, buckles or springs—cannot slip, so cannot chafe or compress against the pelvic bone. The most obstinate cases cured in the privacy of the home. Thousands have successfully treated themselves without hindrance from work. Soft as velvet—easy to apply—inexpensive. Process of cure is natural, so no further use for trusses. We prove what we say by sending you Trial of Plapao absolutely FREE. Write TODAY. Address—PLAPAO LABORATORIES, Block 72, St. Louis, Mo.

Apple & Cherry Trees 10c. Peach & Curr. Other Fruit Trees and Berry plants at lowest prices Cat. free. ERNST NURSERIES, Moscow, O., Box 2

GRANGE

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

THE NOVEMBER PROGRAMS.

State Lecturer's Suggestions for First Meeting.

Song—Page 34, Grange Melodies.
An account of some movement for the uplift of humanity.
Song, "Help it On," Song Knapsack.
Recitation and music.
Beautiful objects for home and school—pictures.
Roll-call, responded to by each describing a picture he or she admires. (Show picture if possible).
Legislative matters—discussion, followed by instructions to delegates to State Grange.

THE NUB OF THE COUNTRY LIFE PROBLEM.

While there are evidences that the trend of population from country to city has been checked to some extent, it still remains the most serious problem confronting agriculture in this country. That a real or imaginary difference in the conditions obtaining upon the farm and in the city is largely responsible will hardly be questioned, and the remedy therefore seems to lie in a general improvement in the conditions surrounding those who live in the country. Some weeks ago, Former President Roosevelt, in an address before an assemblage of New York Patrons, gave his ideas of what he calls the human side of this great problem, from which we take the following:

The human side of the rural life problem is to make the career of the farmer and the career of the farm laborer as attractive and remunerative as corresponding careers in the city. Now, I am well aware that the farmer must himself take the lead in bringing this about. It is absurd to think that any man who has studied the subject only theoretically is fit to direct those who practically work at the matter. But I wish to insist that it is a pernicious absurdity for the practical man to refuse to benefit by the work of the student.

One reason why the great business men of today—the great industrial leaders—have gone ahead, while the farmer has tended to sag behind the others, is that they are far more willing, and indeed eager, to profit by expert and technical knowledge—the knowledge that can only come as a result of the highest education. From railways to factories no great industrial concern can nowadays be carried on save by the aid of a swarm of men who have received a high technical education in chemistry, in engineering, in electricity, in one or more of scores of special subjects.

In just the same way the farmers should benefit by the advice of the technical men who have been trained in phases of the very work the farmer does. I am not now speaking of the man who has had an ordinary general training, whether in school or college. While there should undoubtedly be such a training as a foundation (the extent differing according to the kind of work each boy intends to do as a man) it is nevertheless true that our educational system should more and more be turned in the direction of educating men toward, and not away from the farm and the shop. During the last half century we have begun to develop a system of agricultural education at once practical and scientific, and we must go on developing it. But, after developing it, it must be used.

The rich man who spends a fortune upon a fancy farm, with entire indifference to cost, does not do much good to farming; but, on the other hand, just as little is done by the working farmer who stolidly refuses to profit by the knowledge of the day; who treats any effort at improvement as absurd on its face, refuses to countenance what he regards as new-fangled ideas and contrivances, and jeers at all book farming.

The farmer, however, must not only make his land pay, but he must make country life interesting for himself and his wife and his sons and daughters. Our people, as a whole, should realize the infinite possibilities of life in the country, and every effort should be made to make these possibilities more possible. * * *

It often happens that the good conditions of the past can be regained, not by going back, but by going forward. We cannot re-create what is dead; we cannot stop the march of events, but we can direct this march, and out of the new conditions develop something better than

the past knew. Henry Clay was a farmer who lived all his life in the country; Washington was a farmer who lived and died in the country; and we of this nation ought to make it our business to see that the conditions are made such that farm life in the future shall not only develop men of the stamp of Washington and Henry Clay, but should be so attractive that these men may continue as farmers; for remember that Washington and Henry Clay were successful farmers. I hope that things will so shape themselves that the farmer can have a great career and yet end his life as a farmer; so that the city man will look forward to living in the country rather than the country man to living in the city.

Farmers are learning how to combine effectively, as has been done in industry. I am particularly glad to speak to the Grange, for I heartily believe in farmers' organizations and we should all welcome every step taken towards an increasing co-operation among farmers. The importance of such movements cannot be overestimated, and through such intelligent joint action it will be possible to improve the market just as much as the farm.

AMONG THE LIVE GRANGES.

Belleville Grange, of Wayne Co., at a recent meeting debated the question, "Resolved, that the farmer of forty years ago enjoyed life better than those of the present day." The decision was in favor of the negative side of the question.

Marion Center Grange, of Charlevoix Co., won first premiums on fresh fruit, canned fruit, vegetables and grain at this year's county fair. Its members are elated, since this is the first time that a single Grange has received a first award in all classes open to Granges.

Silica Grange Has Pomona Program.—It was my privilege to attend a most excellent meeting of Silica Grange, Muskegon county, on Saturday evening, Oct. 1. This Grange owns a spacious hall and it was well filled on that occasion. Mrs. C. I. Giles is the worthy lecturer and in addition to an appropriate program she had secured a splendid exhibit of fruits, flowers and farm products generally. Apples are scarce this fall, but they were there, and splendid specimens, too. In commenting on the exhibit, Bro. John Walker, of Muskegon Grange, said he had seen nothing finer this year. He said, taken together, it gave unmistakable evidence of the productiveness of the soil in that section. "Just a little while ago," he said, "I heard a very prominent man say that no soil is fit for agriculture unless it has a clay subsoil, but right here where the sand is 500 feet deep or more, we have raised this year potatoes that would yield 300 bushels to the acre, and the best corn I ever saw." The writer spoke upon Grange Life Insurance. Considerable of interest was manifested and it is probable that this Grange will be in the front rank in this particular as in all other lines of Grange work. The ladies served a bountiful supper. Long live the Patrons of Silica Grange.—W. F. Taylor.

Jackson County Pomona.—In spite of stormy weather about 100 Patrons attended the recent county meeting. The Granges were divided into districts by the delegates as follows: First district—Concord, Pulaski, Hanover and West Summit. Second district—Spring Arbor, Springport, Minard, Blackman and South Henrietta. Third district—North Leoni, Leoni Center, South Leoni, West Napoleon and East Summit. As delegates to the State Grange the first district elected E. G. Knight and wife, of Hanover; second district, B. A. Pomeroy and wife, of Minard; third district, M. H. Crofts and wife, of North Leoni. Later all Patrons present participated in the organization of a Pomona or county Grange, with the following officers: Master, W. J. Moore; overseer, Chas. Freeland; lecturer, Nellie Daniels; steward, Ellsworth Elmer; ass't steward, W. B. Herington; lady ass't steward, Mary Herington; chaplain, Helen Chanter; treasurer, Frank Ayers; secretary, Lewis St. John; gate keeper, H. B. Stetler; Ceres, Mrs. E. G. Knight; Pomona, Florence McClintic; Flora, Emma Vedder. After the organization of the Pomona, State Master Hull gave one of his usual forceful addresses. State Secretary Hutchins was also present as a delegate from Hanover Grange and lent his assistance. The Pomona was organized by State Deputy John F. Wilde. As Pomona delegates to State Grange Frank Ayers and Mrs. Helen Chanter were elected.

COMING EVENTS.

National Grange, Forty-fourth annual session, at Atlantic City, N. J., Nov. 15.
Michigan State Grange, Thirty-eighth Annual Session, at Traverse City, Dec. 13-16.

Pomona Meetings.

Kent Co., with South Lowell Grange, at Alto, Wednesday, Oct. 25. Mrs. E. J. Crevts, state speaker.
Western (Ottawa Co.) with Tallmadge Grange, Friday and Saturday, Oct. 21 and 22.

Ingham Co., with LeRoy Grange, at the farm home of Mr. and Mrs. Henry Briggs, near Williamston, Saturday, Oct. 22.

Mecosta Co., with Aetna Grange, at Berland, Thursday, Nov. 17.
Lenawee Co., in Adrian, Thursday, Dec. 1.

Jackson Co., at I. O. O. F. hall, in Jackson, Friday, Dec. 2.

Grange Rallies and Fairs.
Sumner Grange Fair, Thursday, Oct. 27.

FARMERS' CLUBS

OFFICERS OF THE STATE ASSOCIATION OF FARMERS' CLUBS.

President—B. A. Holden, Wixom.
Vice-president—Mrs. C. A. Mathews, St. Johns.
Secretary—Mrs. C. B. Johnson, Metamora.
Treasurer—Henry T. Ross, Brighton.
Corresponding Secretary—N. A. Clapp, Northville.
C. Hallock, Almont; A. R. Palmer, Jackson; Wm. H. Marks, Fair Haven; C. L. Wright, Caro; E. W. Woodruff, Blanchard.

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

Associational Motto.—

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

Associational Sentiment.—

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

THE DATE OF THE CLUB MEETING.

The date on which the monthly Club meetings are held is, of course, a matter for settlement by the individual Clubs, yet there are some points regarding the selection of the date which should receive careful consideration to the end that the meetings may not conflict with other important social or business events of the Club neighborhood. In most cases these matters are doubtless taken into consideration in fixing the day of the week upon which the Club meeting is held, as well as the time in the month when the regular meetings are held, yet in some cases one important point in this connection seems to have been overlooked. While very many of the Clubs in the state, and probably a large majority of them, hold the monthly meetings on Saturday, this is not the universal rule. It is obvious that where the monthly meetings are held on any other day of the week, it will be impractical for the young people, or at least that large contingent of them who are in school, to attend the meetings, at least without neglecting their school work. While it may be more convenient for the parents to have the youngsters in school on the day when the Club is held, it is hardly a square deal for the younger children, who would get not a little benefit from the opportunity to attend the Clubs and get acquainted with the children from other school districts, as well as their parents. Then, by affording them an opportunity to take part in the Club programs they will gain a confidence in themselves which will be of value to them in their after life. The training received by children in public meetings of this character is an important factor in their education, and this is an opportunity which should not be denied them. Then there is another side of this same question, and that is the future of the Farmers' Club itself. If the children are brought up to feel that they have a part in the Club work, they will remain loyal to it when they become young men and women. They will in a few years become the substantial, working members of the organization. At the conferences of local Club workers always held during the annual associational meetings, one common complaint made by the delegates speaking is the difficulty in getting the young people interested in the Club work. If the Club meetings are always held at such times as will make it possible for the children to attend and if they are encouraged in attending and given some part in the program, the problem will be greatly simplified. It will then become only a question of keeping them interested in the work, and this is something which, if given the opportunity, they will be likely to do for themselves.

Work for the Young People.

In this connection would it not be an excellent move to have some department of Club work conducted by the young people? Some Clubs have a young people's meeting at some time during the year. Others have a Junior Club, so called, conducted entirely by the young people with the advice and supervision of their elders. Others have the young people conduct contests in crop growing, or some practical work which will interest them alike in the work of the Club and in agriculture as a business. Of course, the plan adopted must be suited to the number and age of the young people who might be thus induced to interest themselves in the work of the Club, but a suitable plan can be worked out in any Club to bring the young people into the organization and interest them in its work, and the results will amply repay the effort.

THE SHARE OF THE FARMER'S WIFE.

Synopsis of a paper read by Mrs. Alfred Allen before the Ingham County Farmers' Club, as reported by the corresponding secretary:

In part, Mrs. Allen said, the wife's share might be considered under three divisions—home making, work, and the money end. Home making was something more than housekeeping and we should have our homes as attractive as possible with pictures of real art and wholesome reading; a child would remember the pleasant things of home life much more than to be scolded for making a particle of dirt. Woman, in doing her share of the work, should have all the conveniences possible, such as the washing machine, the fireless cooker, the food chopper, gas flatiron, and others mentioned. What share of money belongs to the wife depends upon circumstances, but under no consideration should she be obliged to ask for money; that makes her too dependent for what she has helped to earn. Give an allowance, if possible, in proper proportion to the income and she will make good use of it. Women embezzlers are unknown and in Kansas, where 12 years ago there was only one woman bank president, now there are four presidents and fifteen vice-presidents. Would it not be wise to have one pocketbook and when John gets something new let Mary have some needed utensil too? Let each share in the enjoyments and pleasures and when they sell something or have a little good luck, let each enjoy the benefits. Keep the right spirit in the home, the spirit of unselfishness and each will be doing his or her share.

CLUB DISCUSSIONS.

Elect New Officers.—The Sherman Farmers' Club met at the home of Mr. and Mrs. Jake Kemperman, Friday evening, Sept. 17. That being election night, the meeting was called to order by the president, W. E. Carter, and the members proceeded to elect the necessary officers by ballot. The following officers were elected: President, Mrs. F. J. Lyons; vice-president, Mrs. Joseph Hoppa; secretary, Mrs. W. E. Carter; treasurer, J. Kemperman. An invitation was given and accepted to meet with Mr. and Mrs. Herman Kemperman for our next meeting. Supper was then served on lap boards to all present.—Mrs. W. E. Carter, Secretary.

The Wife's Share.—Another pleasant and successful meeting of the Ingham County Farmers' Club was held Saturday, Oct. 8, with Mr. and Mrs. Vaughan, and Columbia Home has lost none of its hospitality. It was an ideal day and there was a good attendance. After the inner man was fully satisfied, President Ives called the meeting to order and after music, Mrs. Alfred Allen gave a most excellent paper upon "The Share of the Farmer's Wife," a synopsis of which appears above. Mrs. Melton opened the discussion by saying woman was economical in everything but saving herself, and one help for this would be to have a place for everything and everything in its place; and hundreds of dollars would be saved annually outside if the wife had more influence over the pocket.

Care of the Eyes.—The next subject, "Care of the Eyes," was ably handled by O. S. Bush. He had carefully prepared charts to show the formation of the eyes; told about special compound lenses and said that the eye was the highest polished substance known to man. The most perfect eyesight is when one is 10 years old. He stated that one measures distance by triangles and spoke at some length upon stigmatism, cataracts and nearsightedness, which is an acquired habit.

In Memoriam.—Since our last meeting, we have been called upon to part with one of our oldest members and President Ives thought it worth while to spend a little time in memoriam of Mrs. Bullen. Thereupon many of the members present paid tribute to her excellent qualities, manifested from her youth up, and how her natural loveliness had expanded as wife and mother and neighbor. At the close President Ives stated that all were of one mind regarding the worth of their departed friend, and, after singing the members were dismissed by Rev. Beebe. The next meeting will be Woman's Day, at Sunnyside, with President Ives. This is the annual chicken-pie dinner and the committee promise us a good program.—Mrs. Tanswell, Cor. Sec.

Consider Adoption of Reading Course.—J. L. Carter and wife entertained the Odessa Farmers' Club, Saturday, Oct. 8. The meeting was called to order by the president, and opened by singing "America." Mrs. Augst read a helpful paper on "First aid to the injured, for fainting, choking and cuts." This was followed by a general discussion, also for cuts, burns, bruises and foreign substances in the throat, nose, ear and eyes. After the enjoyment of dinner and the social hour, a good program was rendered. There was considerable discussion in regard to the taking up a reading course next year, which resulted in this being left in the hands of the program committee, which the president appointed, consisting of Mr. and Mrs. Chas. Begerow, Mr. and Mrs. A. E. Leigh. The meeting was adjourned to meet with Mr. and Mrs. D. D. Durkee in November.—Reporter.

MARKETS

DETROIT WHOLESALE MARKETS.

October 19, 1910.
Grains and Seeds.

Wheat.—The heavy early selling by farmers gave the trade a downward trend which it has been unable to recover from even though the receipts at primary points for some days back have been light. It is now down to an export basis and the belief exists that further heavy declines are not likely, unless there should be a change in the world's supply. Argentine had rains which were badly needed and made the outlook for the growing wheat there more promising. Russia is also enjoying good weather for getting her crop stored. The gradual decline of the market at this time is most unusual for after the farmers are done with the early fall rush of grain to the market there is naturally an upward move to prices. How long the strange condition will remain is a problem which, if solved, might save to farmers fortunes. A year ago there was an advance of 12c from the middle of August to the middle of October in cash wheat, two years ago an advance of 8c for the same period and three years ago a change in the same direction of 17c, while this year there has been a decline of about 9c for the corresponding period. Brokers, as is natural to suppose when the farmers are selling, hold the reason to be that American wheat is higher than conditions warrant. We suspect they may forget this reason when they have a good part of the crop in their control. Visible supply increased liberally. A year ago the price for No. 2 red wheat was \$1.23 per bu. Quotations for the week are:

	No. 2	No. 1	Dec.	May.
Thursday	.96	.93 1/4	.98 3/4	1.04
Friday	.95 1/4	.93	.98	1.03 1/4
Saturday	.96 1/4	.93 1/4	.98 1/4	1.03 1/4
Monday	.95 1/4	.92 1/2	.98 1/2	1.02 1/2
Tuesday	.95	.92 3/4	.97	1.02
Wednesday	.95	.92 3/4	.97	1.02

Corn.—As the date for the delivery of the new crop of corn approaches, prices begin to go downward. The influence of wheat is a bearish feature of the trade. The crop is being gotten to cribs in ideal shape. It is noted that in some sections the crop is not giving the returns expected. The ears are in many instances not filled out well. A year ago this market was paying 64c for No. 2 corn. Visible supply decreased. Quotations for the week are:

	No. 2	No. 2
	Mixed.	Yellow.
Thursday	.52 1/2	.54
Friday	.52 1/2	.54
Saturday	.52 1/2	.54
Monday	.52	.53 1/2
Tuesday	.51	.52 1/2
Wednesday	.51	.52 1/2

Oats.—The oat deal is trying to be popular by declining with the other cereals. Values have slipped down nearly 2c since a week ago. The local trade is easy. In Chicago there was a good volume of buying Tuesday, presumably by shorts who were anxious to cover. The visible supply showed a decrease of nearly a million bushels. One year ago the price was 41c for standard oats. Quotations for the week are:

	Standard.	No. 3
		White.
Thursday	.35 1/4	.35 1/4
Friday	.35 1/4	.35 1/4
Saturday	.35 1/4	.35 1/4
Monday	.35	.34 1/4
Tuesday	.34 1/4	.34
Wednesday	.34 1/4	.33 3/4

Beans.—Quotations have been cut a little for cash beans during the week. November delivery is steady. The deal is easy and sellers appeared to be the only parties upon the local market Tuesday. The following are the nominal quotations for the week:

	Cash.	Nov.
Thursday	\$2.07	\$2.00
Friday	2.07	2.00
Saturday	2.05	2.00
Monday	2.05	2.00
Tuesday	2.05	2.00
Wednesday	2.05	2.00

Cloverseed.—A great deal of business has been transacted on the cloverseed market the past week and prices have gone down in the showing made by the sellers. They appear to have gotten hold of a fairly large amount of the product. Prices declined about a half dollar. Alsike went the way of the other kinds but only declined about half as much. Quotations are:

	Prime Spot.	Dec.	Alsike.
Thursday	\$9.00	\$9.05	\$9.00
Friday	8.60	8.65	9.00
Saturday	8.60	8.65	8.75
Monday	8.60	8.65	8.75
Tuesday	8.45	8.45	8.75
Wednesday	8.50	8.55	8.75

Rye.—Market higher and steady at the advance. Quotation for No. 1 is 77c per bu., which is 2c above the price of a week ago.

Visible Supply of Grains.

	This week.	Last week.
Wheat	37,573,000	34,309,000
Corn	3,796,000	4,422,000
Oats	17,886,000	18,737,000
Rye	406,000	406,000
Barley	2,596,000	2,630,000

Flour, Feed, Provisions, Etc.

Flour.—The flour trade is active at changed figures. Quotations are:

Clear	\$4.30
Straight	4.80
Patent Michigan	5.45
Ordinary Patent	4.50

Hay and Straw.—Market steady. Quotations on baled hay in car lots f. o. b. Detroit are: No. 1 timothy, \$16@16.50; No. 2 timothy, \$14@15; clover, mixed, \$14-

\$15; rye straw, \$7@7.50; wheat and oat straw, \$6.50@7 per ton.

Feed.—With the exception of middlings, which are higher, feeds show a decline for the week. Carlot prices on track are: Bran, \$25 per ton; coarse middlings, \$25; fine middlings, \$28; cracked corn, \$25; coarse corn meal, \$25; corn and oat chop, \$23 per ton.

Potatoes.—The discouraging news from dealers last week appears to have arrested the slide of values to lower levels and held them steady at the figures then quoted. The market is still said to be easy but the small yields and the indications of a small crop for the country will, no doubt, keep the trade about where it is. In car lots Michigan potatoes are selling at 45@50c.

Provisions.—Mess pork, \$22.50; family pork, \$23; medium clear, \$21.50@22.50; smoked hams, 15 1/4c; dry salted briskets, 14 1/4c; shoulders, 12c; picnic hams, 11c; bacon, 19@23c; lard in tiers, 13 1/4c; kettle rendered, 14 1/4c per lb.

Dairy and Poultry Products.

Butter.—The trade noted no change the last several days and prices are ruling on last week's basis. Elgin is steady and the market here is in harmony with the Illinois butter center. The quotations are: Extra creamery, 29 1/4c; firsts, do., 27c; dairy, 28c; packing stock, 22c per lb.

Eggs.—Still the price of eggs keeps gradually advancing, having made a half cent gain since last week. There is scarcely no volume to the receipts and the demand is strong. Fresh receipts, cases included, case count, are quoted at 25 1/2c per dozen.

Poultry.—Birds are coming to the market in large numbers and the trade is having a hard time to keep them moving properly. Spring chickens are averaging a shade lower than last week at 13@13 1/2c per lb; hens are easy at 10@12 1/4c; turkeys show a little tendency downward and are now quoted at 16@17c; geese are steady at 10@11c; ducks unchanged at 14c per lb.

Cheese.—Michigan, late made, 15c; Michigan, fall made, 17 1/2@18c; York state, 17 1/2@18c; limburger, old, 17@18c; Swiss, domestic block, 21@22c; cream brick, 16 1/2@17c.

Fruits and Vegetables.

Apples.—Offerings are large. Choice consignments are selling at \$3@3.50; common kinds and grades, \$2@3 per bbl.

Cabbage.—Steady. Selling at \$1.50 per bbl. for new.

Peaches.—Season nearly done. Prices are higher and range from \$2.50@2.75 for Michigan products.

Tomatoes.—Market higher. Generally quoted at 75@90c per bu.

Grapes.—Concords, 4-lb. baskets, 16c; Niagaras, 17c; Delawares, \$18c.

Pears.—Selling at 75c@\$1.50 per bu.

OTHER MARKETS.

Grand Rapids.

It is now pretty certain that potatoes have reached bottom prices. Local dealers are paying 25c in the Grand Rapids freight zone, 22c in Cadillac and Manton territory and 20c at points farther north. Farmers are not selling at these prices, preferring to put stock in pits. The bean market is also in the dumps, prices to farmers being on the \$1.80 basis. Onions are a fine crop in western Michigan, being firm and even in size. The price for carload lots ranges from 40@45c. Wheat is off to 91c for No. 1 red and 88c for No. 2 white. New corn, No. 2 yellow, starts off at 45c this fall. Tomatoes were cheap Tuesday morning, barely reaching 35c. Potatoes in a small way brought 40@45c. Celery is worth 15@20c; cabbage 35c bu. Farmers are getting \$16@17 for good timothy hay. Dressed hogs are worth around 11c. Live poultry, delivered, is quoted as follows: Fowls and chickens, 10@10 1/2c; ducks, 10@10 1/2c; turkeys, 14c; geese, 8 1/2c. Veal is worth 6@11c. Eggs are unchanged at 24@24 1/2c. Creamery butter is up 1/2c, dairy unchanged.

New York.

Butter.—Steady, with all grades showing a good advance. Creamery specials quoted at 32c; extras, 30 1/2@31c; thirds to firsts, 24@29c.

Eggs.—The market is reported quiet, but despite this all grades are quoted higher. Nearby eggs quoted at 34@42c; fresh gathered extras, 28 1/2@30c; firsts, 26 1/2@27 1/2c dozen.

Poultry.—Live poultry is steady, while dressed fowls have a quiet trade. Live Springers, 14c; fowls, 14@16c; turkeys, 12@15c. Dressed stock quoted as follows: Western broilers, 17@20c; fowls, 13@18c; spring turkeys, 14@25c.

Chicago.

Wheat.—No. 2 red, 94 1/2@95 1/2c; December, 93 3/4c; May, \$1.00 per bu.

Corn.—No. 2 mixed, 47 1/4c; December, 46 1/4c; May, 49 3/4c.

Oats.—No. 2 white, 31 1/4c; December, 30 1/4c; May, 34c.

Butter.—Market firmer under fairly active trading. Top-notch creamery is 1c higher than last week. Creameries, 24@29c; dairies, 23@27c.

Eggs.—Trading easier and a little slow this week, although former quotations still rule. Quotations are: Prime firsts, 26c; firsts, 24c; at mark, cases included, 18 1/2@21 1/2c dozen.

Hay and Straw.—The market continues strong at last week's advanced figures. Quotations are: Choice timothy, \$19.50@20.50; No. 1 timothy, \$18@19; No. 2 do. and No. 1 mixed, \$16@17.50; No. 3 do. and No. 2 mixed, \$14@15.50; rye straw, \$8@8.50; oat straw, \$6.50@7; wheat straw, \$6@6.50 per ton.

Potatoes.—Receipts continue liberal and the market is easier; prices have declined about 2c since this time last week. Choice to fancy are quoted at 50@53c per bu; fair to good, 38@43c.

Boston.

Wool.—With the exchange of a large amount of territory wools on the market here, there came a feeling that gave

promise of a better market from now on and dealers are more happy over the outlook. The fleeces were not counted among the active kinds, but even with them there was an increased call and better selling than last week. Pulled wools are slow and there is a great deal of interest in the foreign product. Leading domestic quotations are as follows: Ohio and Pennsylvania fleeces—Delaine washed, A, 34c; XX A, 30c; 1/2-blood combed, 28@29c; 3/4-blood combed, 28@29c; 1/2-blood combed, 26 1/2@27 1/2c; delaine unwashed, 26 1/2@27c; fine unwashed, 21@23c. Michigan, Wisconsin and New York fleeces—Fine unwashed, 19@21c; delaine unwashed, 25@26c; 1/2-blood unwashed, 27@28c. Kentucky, Indiana and Missouri—3/4-blood 28@29c.

Toledo.

Clover Seed.—Prices have declined rapidly the past week, cloverseed losing 65c and alsike 20c. Closing quotations were: Cash, \$8.50; December, \$8.50; alsike, cash, \$9; December, \$9.

Elgin.

Butter.—Trade firm at 29c per lb., which is on a par with the price of last week. Sales for the week amounted to 689,300 lbs., as compared with 694,700 lbs. for the previous week.

THE LIVE STOCK MARKETS.

Buffalo.

October 17, 1910.

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

Receipts of stock here today as follows: Cattle, 125 cars; hogs, 14,300; sheep and lambs, 19,000; calves, 1,200.

With 215 loads of cattle on our market here today, and 42,000 reported in Chicago and lower, and with a light attendance of buyers here, our market was from 20@40c per hundred weight lower on all grades.

We quote: Best 1,300 to 1,400-lb. steers \$6.85@7.25; good prime 1,200 to 1,300-lb. do., \$6.25@6.75; best 1,100 to 1,200-lb. shipping steers, \$5.65@6.25; medium butcher steers, 1,000 to 1,100 lbs., \$5@5.40; light butcher steers, \$4.50@5; best fat cows, \$4.50@5.10; fair to good cows, \$3.25@4; common to medium do., \$3@3.50; trimmers, \$2.75@3; best fat heifers, \$5.25@6; good do., \$4.25@4.75; fair to good do., \$3.75@4.25; stock heifers, \$3.25@3.75; best feeding steers, dehorned, \$5@5.25; medium to good feeding steers, \$4.25@4.50; stockers, all grades, \$3.50@3.75; best bulls \$4.75@5; bologna bulls, \$3.75@4.25; light thin bulls, \$3.25@3.75; best milkers and springers, \$7@8; good do., \$5@6.50; common to good do., \$3.50@4. A few extra good cows brought \$5.25. Common stock cattle were slow sale on the market today.

Ninety-five cars on sale today, our hog market opened about steady with Saturday's prices. Closed steady at the opening, with a good clearance of all that was yarded in time for the market.

We quote: Heavies and medium, \$9.15@9.40; mixed, \$9.30@9.40; yorkers, \$9.30@9.40; pigs, \$9.30@9.40; rough, \$7.70@7.75; stags, \$6.50@7. Prospects only fair.

The lamb market opened up slow today, with prices about 75c per hundred weight lower than last Monday; most of the best handy lambs selling at 7c. Market very dull on heavy lambs; most of the northern Michigan lambs selling at \$6.75. Closing steady, about all sold. Look for steady prices balance of week. Handy sheep were strong today, and prospects are for about steady prices on sheep balance of week.

We quote: Spring lambs, \$6.90@7; wethers, \$4.50@4.75; cull sheep, \$2.50@3; bucks, \$2.50@3.25; yearlings, \$5@5.50; heavy ewes, \$4@4.10; handy ewes, \$4@4.25; northern Michigan lambs, \$6.75@6.85; veals, choice to extra, \$10@10.50; fair to good do., \$7.50@9.75; heavy calves, \$6@7.

Chicago.

October 17, 1910.

Cattle. Hogs. Sheep.
Received today 43,000 28,000 70,000
Same day last year.....36,859 23,022 45,482
Received last week.....73,919 83,730 227,748
Same week last year.....76,159 91,260 165,474

The enormous receipts of cattle today, Monday, caused universal surprise, the offerings including around 13,000 from western ranges and a big supply of ordinary and medium grades of natives. There was a sale of fancy beefs at \$7.90, choice cattle being steady and in demand, but the general market was slow, sellers quoting declines of around 10@20c or even more now and then. Hogs had a decidedly better local and shipping demand, the market gathering strength as the day advanced. Early sales were a nickel higher, while at a late hour the market was called largely a dime better. Sales were at \$8.25@9.40, and there was a late sale at \$9.45 for light hogs. As usual, heavy packing lots were slowest and lowest. Hogs received last week averaged 257 lbs., compared with 261 lbs. a week earlier, 264 lbs. two weeks ago, 226 lbs. a year ago, 208 lbs. two years ago and 237 lbs. three years ago. Evidently, some farmers are scared over the prospects, but enough are holding back hogs to put prices higher. A week ago the best hogs brought \$8.95. Sheep and lamb receipts were estimated early today at 75,000 and later at 70,000 down to not over 65,000. Demand was good, and prices were steady at \$4@7.15 for lambs, \$4@4.50 for wethers, \$1.75@4.25 for ewes, \$2.50@3.50 for bucks, and \$4.50@5.50 for yearlings. Breeding ewes were salable at \$4@5.25, feeder lambs at \$4@6.50, feeder wethers at \$3.25@4, and feeder yearlings at \$4.50@5.40.

Cattle are being rushed from the western ranges in such largely increased numbers on account of lack of feed resulting from dry weather that the week's aggregate cattle supply was greatly increased. On Thursday of last week the receipts of western rangers rose to around 13,000 head, the biggest number of the

season, and numerous range shippers stated that it was their inability to get all the cars they ordered which held the receipts down to this number. The market has been a better one than might have been expected under the circumstances, with a good demand for fat cattle part of the time at advancing prices, while less attractive offerings had to be closed out frequently at reduced prices from recent quotations. Steers from feeding districts went largely at \$5.50@7.50, with no considerable supplies of choice beefs except on Monday and Wednesday, usually the days of large receipts of cattle. The choicer lots of steers taken for eastern shipment sold at \$7@8 and the poorer light killers at \$4.60@5.60, while export steers were salable at \$6.25@7.10. Butcher stock sold well when good and fat and poorly when the offerings had to compete with range stock. Cows and heifers went at \$3.30@6.80, few going near the top, while canners and cutters sold at \$2@3.25 and bulls at \$3@5. Calves had an outlet at \$3@10 per 100 lbs., choice vealers being active. Milch cows were taken at \$30@75 each, choice cows being wanted for eastern shipment, while backward springers sold to canners. Stockers had a very large sale at \$3.25@4.90, while feeders moved off freely on the basis of \$4.50@5.60, a few loads of fancy 1,180-lb. feeders bringing \$5.85. Western range cattle sold at \$4.20@6.90 for steers and at \$3@5.50 for cows and heifers, the prices paid being good considering the big offerings. Liberal supplies of range cattle are expected for the near future.

Hogs showed a further widening tendency in prices last week, the small percentage of choice light and medium weights being apt to advance at times when extra heavy old packing sows were dull and declining. The aggregate hog supplies were only moderate here and at other markets, and it was possible usually to dispose of the best droves at prices that looked good to country shippers, but after the limited selections of light shipping hogs were filled to forward to eastern packing points the Chicago packers were apt to do their buying on a low basis. Killers were looking mainly for material for the fresh meat trade, and no large amount of manufacturing of cured meats was carried on. Official figures show that the principal western points of storage held in the aggregate on the first day of this month 119,326,000 lbs. of provisions, compared with 113,299,130 lbs. a year ago, and 157,129,461 lbs. two years ago. Packers are anxious to place the hogs for converting into provisions for the winter packing season on a lower basis, but this has been delayed partially by small supplies, spring pigs being held until they get fat and heavy. Hogs are still much higher than in former Octobers.

Sheep and lambs have never in the past arrived in Chicago and Omaha and other western markets in anything approaching the enormous supplies seen in recent weeks, the great bulk of the offerings being forced in from the ranges by the lack of feed. The rangeman's necessity is the feeder's opportunity, and greatly unprecedentedly large supplies of thin range flocks have been headed all the time for feeding districts in Michigan, Ohio and several other states of the middle west. It is going to be the greatest season for fattening flocks ever known, and careless sheepmen are bound to get left, especially the ones who send in their "warmed-up" flocks on the first appearance of real winter weather. The shrinkage in prices for both sheep and lambs has been much less than it would have been had this great feeder demand been lacking. Lambs have held up the best this fall, while sheep are selling much lower than in most former years.

Horses were in only moderate demand during the greater part of last week, and sellers had good reason to feel greatly dissatisfied in numerous instances, country shippers being forced in many cases to sell at losses of \$10@20 per head and even at losses of as much as \$50. Heavy drafters were the most active usually, going at \$170@275, with one horse that weighed 1,920 lbs. and cost \$350 in the country, going at auction for \$295. Small southern chunks were in the usual steady demand at \$70@125, and feeders were fairly active at \$165@225.

Cattle feeders in various sections are enthusiastic regarding the benefits derived from feeding silage, which is gaining ground all the time as an economical feed for producing beef. An abundance of cheap, succulent food is furnished by corn and fodder put in the silo, and the large shrinkage in cattle changing from green to dry feed is prevented.



THIS BALL-BEARING PITLESS SCALE
Guaranteed U. S. Standard
AT WHOLESALE PRICE

Let us save you \$25 to \$50 on the finest scale made. The ball-bearing principle alone doubles its value—gives a freedom of movement that prevents binding and clogging. The only scale sold at wholesale price to farmers on 30 Days' Free Trial—on a full 10 Years' guarantee. Requires no pit-digging, no wood except floor. Don't take the other fellow's weights. Write for price, freight paid, free trial and guaranty.

INDIANA PITLESS SCALE CO.,
Box 10A, New Castle, Indiana

THIS IS THE LAST EDITION.

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

DETROIT LIVE STOCK MARKETS.

Thursday's Market.
October 20, 1910.

Cattle.

Receipts, 852. Market dull and 10@15c lower than last Thursday at opening.

We quote: Best steers and heifers, \$5.75; steers and heifers, 1,000 to 1,200, \$4.75@5; steers and heifers, 800 to 1,000, \$4.50@4.65; grass steers and heifers that are fat, 800 to 1,000, \$4.50@4.65; grass steers and heifers that are fat, 500 to 700, \$3.75@4.25; choice fat cows, \$4@4.25; good fat cows, \$3.25@3.75; common cows, \$3@3.25; canners, \$1.75@2.50; choice heavy bulls, \$4; fair to good bolognas, bulls, \$3.50@3.75; stock bulls, \$3@3.25; choice feeding steers, 800 to 1,000, \$4.50@4.75; fair feeding steers, 800 to 1,000, \$4@4.25; fair stockers, 500 to 700, \$4@4.50; fair stockers, 500 to 700, \$3.75@4; stock heifers, \$3.50@3.75; milkers, large, young, medium age, \$4@65; common milkers, \$25@35.

Bishop, B. & H. sold Mich. B. Co. 2 cows av 915 at \$3.25, 1 do weighing 1,250 at \$4, 27 butchers av 852 at \$4.10, 7 do av 746 at \$4.15, 6 steers av 956 at \$5.75; to Sullivan P. Co. 1 bull weighing 1,150 at \$3.75, 4 cows av 1,220 at \$4.40; to Parker, W. & Co. 5 steers av 610 at \$4; to Regan 2 heifers av 550 at \$3.60; to Jughlin 6 cows av 885 at \$2.75, 2 do av 895 at \$3, 2 do av 900 at \$3, 2 do av 1,000 at \$3.25; to Kamman B. Co. 2 steers av 775 at \$4, 1 cow weighing 890 at \$3.50, 4 butchers av 822 at \$4.50; to Kamman 3 cows av 1,057 at \$3.75; to Hammond, S. & Co. 5 cows av 726 at \$2; to Regan 2 heifers av 1,400 at \$4.10; to Fronn 1 heifer weighing 1,000 at \$3.70; to Sullivan P. Co. 3 cows av 1,000 at \$4, 4 do av 945 at \$3; to Parker, W. & Co. 11 steers and heifers av 1,091 at \$5.75.

Roe Com. Co. sold Mich. B. Co. 1 cow weighing 970 at \$3.75, 1 do weighing 1,160 at \$4, 1 do weighing 1,100 at \$4, 1 bull weighing 880 at \$3.75, 10 steers av 839 at \$4.75, 6 do av 683 at \$4.25, 8 cows av 1,093 at \$4, 3 do av 1,023 at \$3.50; to Thompson Bros. 11 butchers av 1,011 at \$4; to Sullivan P. Co. 14 do av 707 at \$4, 1 cow weighing 1,030 at \$2.75; to Marx 5 steers av 806 at \$4.50; to Mich. B. Co. 4 cows av 855 at \$2.75, 1 do weighing 1,260 at \$4; to Parker, W. & Co. 15 steers av 1,006 at \$5.25; 1 heifer weighing 880 at \$4.25, 2 steers av 1,170 at \$5.25; to Marx 12 butchers av 846 at \$4.50.

Spicer & R. sold Kull 1 cow weighing 1,000 at \$3.75, 2 heifers av 750 at \$4.25, 1 bull weighing 860 at \$3.50, 3 cow and bulls av 866 at \$3.75, 5 butchers av 660 at \$4.25, 11 do av 756 at \$4.60; to Jughlin 2 cows av 915 at \$3, 1 do weighing 680 at \$2.25; to Brown 1 stocker weighing 360 at \$4.50, 3 do av 577 at \$4, 3 do av 633 at \$4.10; to Sullivan P. Co. 1 cow weighing 1,000 at \$4.25; to Lachalt 7 butchers av 890 at \$4.25; to Breitenbeck 5 cows av 966 at \$3.75; to Goose 3 do av 883 at \$3, 1 do weighing 900 at \$2.50; to Kull 3 steers av 887 at \$5, 1 do weighing 1,180 at \$5.50, 4 butchers av 665 at \$4.25.

Haley & M. sold Berghoff 3 butchers av 410 at \$3.60; to Lingeman 7 do av 643 at \$3.75, 7 do av 741 at \$4.25; to Jughlin 3 cows av 950 at \$3, 1 do weighing 970 at \$3.25, 4 bulls av 562 at \$3.55; to Sullivan P. Co. 2 cows av 990 at \$3, 4 bulls av 975 at \$3.75, 1 do weighing 1,340 at \$3.85, 9 butchers av 820 at \$4.55; to Regan 7 do av 577 at \$4, 2 do av 575 at \$3.90, 2 steers av 495 at \$4; to Sullivan P. Co. 1 bull weighing 1,550 at \$4.50, 4 cows av 1,020 at \$3.50, 3 do av 866 at \$2.50, 6 butchers av 780 at \$3.50; to Breitenbeck 2 cows av 1,030 at \$3.75, 2 do av 910 at \$3.50, 1 do weighing 1,050 at \$3.75; to Schuman 4 steers av 530 at \$4.

Meehan sold Bresnahan 6 cows av 841 at \$4, 1 do weighing 1,080 at \$2.75.

Johnson sold Sullivan P. Co. 2 bulls av 1,275 at \$3.75.

Lewis sold same 14 butchers av 740 at \$4.

Johnson sold same 3 steers av 943 at \$5.25.

Stephens sold same 2 heifers av 670 at \$4.25.

Lovewell sold Regan 12 butchers av 706 at \$3.85.

Veal Calves.

Receipts, 621. Market steady at last Thursday's prices. Best, \$9@9.50; others, \$4@8.75; milch cows and springers steady.

Bishop, Bullen & Holmes sold Hammond, S. & Co. 4 av 185 at \$6, 4 av 145 at \$8.50, 10 av 160 at \$9.50, 1 weighing 170 at \$8.50, 7 av 165 at \$9.25; to Mich. B. Co. 6 av 150 at \$9, 3 av 155 at \$8.25, 8 av 150 at \$9; to Goose 2 av 245 at \$4.50, 6 av 150 at \$9; to Parker, W. & Co. 4 av 160 at \$4.50, 1 weighing 150 at \$9.50, 8 av 150 at \$8.75, 5 av 145 at \$9.50, 5 av 155 at \$9, 5 av 325 at \$4, 10 av 135 at \$9.25.

Stephens sold Breitenbeck 5 av 155 at \$8.50.

Bennett & S. sold Mich. B. Co. 4 av 140 at \$8.75.

Wagner sold Burnstine 5 av 150 at \$9.50.

Haddrill sold same 16 av 155 at \$9.50.

Bergin & W. sold Sullivan 30 av 145 at \$9.

Carmody sold Brunt 7 av 150 at \$8.25.

Spicer & R. sold Mich. B. Co. 1 weighing 250 at \$7, 8 av 130 at \$8.75; to Goose 6 av 250 at \$4.50, 6 av 130 at \$8.75; to Mich. B. Co. 6 av 150 at \$9.25; to Stocker 1 weighing 360 at \$5; to Sullivan P. Co. 2 av 140 at \$7, 3 av 155 at \$9.25, 2

av 130 at \$9; to Mich. B. Co. 4 av 135 at \$9; to Breitenbeck 4 av 145 at \$9, 3 av 140 at \$9.

Sheep and Lambs.

Receipts, 5,451. Market 25c lower than last Thursday, dull; prospects that will close lower.

Best lambs, \$6.50; fair to good lambs, \$6@6.25; light to common lambs, \$5@5.75; fair to good sheep, \$3.50@4; culls and common, \$1.50@3.

Spicer & R. sold Bray 3 sheep av 100 at \$2.50, 10 do av 113 at \$3.50, 6 do av 122 at \$4; to Stocker 5 do av 72 at \$3, 9 lambs av 60 at \$6; to Sullivan P. Co. 11 do av 85 at \$6.65, 5 sheep av 125 at \$4; to Nagle P. Co. 74 lambs av 85 at \$6.35, 105 do av 75 at \$6.50, 4 sheep av 115 at \$2.50, 5 do av 80 at \$2.75; to Breitenbeck 20 do av 65 at \$2.75; to Bordine 23 lambs av 67 at \$6.10.

Bishop, B. & H. sold Parker, W. & Co. 71 lambs av 68 at \$6.50, 38 do av 47 at \$5.50, 3 sheep av 92 at \$3; to Mich. B. Co. 43 lambs av 65 at \$6.25, 30 sheep av 112 at \$3.75, 4 do av 118 at \$3.75, 34 do av 90 at \$3.25; to Bordine 100 lambs av 55 at \$6.25; to Gordon & B. 26 do av 45 at \$5.50, 35 do av 65 at \$6; to Newton B. Co. 13 sheep av 100 at \$3.75; to Nagle P. Co. 90 lambs av 80 at \$6.50, 80 av 70 at \$6.50, 135 av 83 at \$6.55, 233 av 80 at \$6.50, 69 av 60 at \$6, 11 sheep av 87 at \$4, 8 do av 110 at \$3.50; to Barlage 19 lambs av 60 at \$6.50; to Newton B. Co. 9 sheep av 120 at \$4; to Mich. B. Co. 47 lambs av 70 at \$6.35; to Fitzpatrick Bros. 33 do av 65 at \$6, 14 sheep av 110 at \$3.25, 16 do av 90 at \$3, 37 do av 85 at \$2, 43 do av 105 at \$3, 35 lambs av 67 at \$6, 66 do av 65 at \$6.30.

Roe Com. Co. sold Thompson Bros. 60 sheep av 95 at \$3.85.

Hynes sold Sullivan P. Co. 35 sheep av 120 at \$3.50, 47 lambs av 80 at \$6.25.

Carmody sold same 66 do av 78 at \$6.50. Bergin & W. sold same 11 do av 85 at \$6.30.

Bohm sold Hammond, S. & Co. 10 sheep av 107 at \$3.35, 36 lambs av 80 at \$6.60.

Taggart sold Newton B. Co. 8 sheep av 105 at \$3.75, 12 lambs av 75 at \$6.75.

Stephens sold Breitenbeck 9 sheep av 75 at \$2.50, 66 lambs av 75 at \$6.50.

Allington sold Barlage 7 lambs av 80 at \$6, 5 sheep av 90 at \$3.

Wagner sold Youngs 82 lambs av 75 at \$6.15.

Downey sold Nagle P. Co. 18 lambs av 65 at \$6.35.

Haddrill & C. sold Fitzpatrick 26 sheep av 90 at \$3, 43 lambs av 80 at \$6.25.

Hogs.

Receipts, 5,702. Market 10@15c lower than on Wednesday; about steady with last week's close.

Range of prices: Light to good butchers, \$8.85@9; pigs, \$8.85@9; light yorkers, \$8.85@9; stags one-third off.

Spicer & R. sold Hammond, S. & Co. 456 av 190 at \$8.90, 202 av 160 at \$8.80.

Roe Com. Co. sold same 475 av 195 at \$8.90.

Haley & M. sold same 538 av 190 at \$8.90.

Bishop, B. & H. sold Parker, W. & Co. 1,210 av 195 at \$8.80, 960 av 190 at \$8.90.

Same sold Swift & Co. 180 av 175 at \$9.

Friday's Market.

October 14, 1910.

Cattle.

Receipts this week, 1,107; last week, 1,171. Market steady at Thursday's close.

We quote: Best steers and heifers, \$5.75@6.25; steers and heifers, 1,000 to 1,200 lbs., \$4.75@5.25; steers and heifers, 800 to 1,000 lbs., \$4.50@4.75; grass steers and heifers that are fat, 800 to 1,000 lbs., \$4.50@4.75; do. 500 to 700 lbs., \$3.75@4.25; choice fat cows, \$4.25@4.50; good fat cows, \$3.50@4; common cows, \$3@3.25; canners, \$2@2.75; choice heavy bulls, \$4; fair to good bologna bulls, \$3.50@3.75; stock bulls, \$3@3.50; choice feeding steers 800 to 1,000 lbs., \$4.50@4.75; fair feeding steers, 800 to 1,000 lbs., \$4@4.25; choice stockers, 500 to 700 lbs., \$4@4.50; fair stockers, 500 to 700 lbs., \$2.75@4; stock heifers, \$3@3.75; milkers, large, young, medium age, \$4@65; common milkers, \$25@35.

Veal Calves.

Receipts this week, 580; last 654. Market 50c lower than on Thursday. Best, \$9; others, \$4@8.50; milch cows and springers steady.

Sheep and Lambs.

Receipts this week, 8,633; last week, 4,602. Market for lambs steady, sheep dull and 25c lower; quality not so good. Best lambs, \$6.60@6.75; fair lambs, \$6.25@6.50; light to common lambs, \$5.50@6; fair to good sheep, \$3.50@4; culls and common, \$2@2.75.

Hogs.

Receipts this week, 6,729; last week, 6,815. Packers bidding at steady Thursday's prices.

Range of prices: Light to good butchers, \$8.75@8.90; pigs, \$8.75@8.90; light light yorkers, \$8.75@8.90; stags one-third off.

LIVE STOCK NOTES.

The Chicago stocks of provisions on October 1 stood at 59,350,787 lbs., compared with 81,625,104 lbs. a month earlier and 51,604,230 lbs. a year ago.

M. C. Campbell, of Kansas, a large cattle ranchman, combines farming with ranching and makes it pay well. He owns 1,500 head of three-year-old steers, which could be sold now for \$50 per head, but he will winter them. His 800 acres of wheat will furnish a large amount of feed for cattle through the winter, for in threshing the straw was all saved. This will be fed to the cattle, with a small quantity of cottonseed cake, keeping them fat all winter at small cost.

There is a good demand in the Chicago horse market for choice heavy loggers to ship to northern and eastern lumber regions. A short time ago a buyer purchased two car loads on a special order, the lot amounting to 150 head and going to the Minnesota lumber camps. These horses cost from \$200@275 per head, the highest priced animals tipping the scales around

1,800 lbs. This seems a favorable time to market prime heavy horses.

The heavy weight of hogs coming to market—264 lbs. at Chicago—tells its own story. Forty-cent corn on the farm converted into hogs means at least 80c for the corn fed, according to the usual basis of reckoning that ten bushels of corn equals 100 lbs. of hogs.

Chicago packers have controlled the hog market of late, and prices have reached the lowest level seen for many weeks. Much of the time the eastern shipping demand has been so small as to almost efface real competition among buyers. Speculators in the market have greatly lessened their operations after losing a good deal of money through the sharp breaks in prices, while heavy losses have been sustained by country shippers who bought hogs from the farmers. Packers in the Chicago market have been talking of putting the market down to a basis of \$6.50 for hogs, figuring that they could perhaps bring this about by the middle of November, and they have admitted that ruling prices of January provisions were on this basis. But while it is now pretty generally admitted that hog prices are bound to go considerably lower, few observers believe that enough hogs will be marketed this side of Thanksgiving to put prices under \$7. The great obstacle in the hog market is the greatly curtailed consumption of provisions in consequence of their extraordinary dearthness, for they remain at the highest prices of the year, despite the good decline that has been seen in hogs. Packers meanwhile are devoting their efforts to cutting up hogs for the fresh meat trade, preferring to wait for cheaper hogs to make into cured meats.

CROP AND MARKET NOTES.

Lapeer Co., Oct. 10.—Cool wave now on hand; frosts have occurred the past week, also heavy rains which found some corn yet uncut, and lots of beans, although pulled, yet in the fields. There is not one-half of the potato crop dug as yet, and the prices for potatoes have dropped, much to the dismay of potato growers. Wheat fields are looking promising and growing fast, which will insure a good, heavy top before winter sets in. The late rains have improved pastures somewhat and also helped the new seeding, which was much needed. Some were filling their silos last week on the frosted corn crop. Labor scarce and high. Butter, 27c; eggs, 25c. But few tomatoes ripened this season. They are quoted at 60c per bu. Some transfers in farms. Auction sales commenced. Sugar beets, mangel wurzels, carrots, cabbage, pumpkins, squash, etc., have done well this season, for which we are very thankful. The district and county fairs all had a good show of farm products.

Kent Co., Oct. 12.—Now, while the late potato crop is under process of harvesting is a good time to go from field to field and learn actual facts and details concerning the crop. This I have done and I find the crop here in northern Kent county a fair average. Well handled fields with suitable soil are a full average crop and of excellent quality. Other fields with less fertile soil are considerably below the average yield in marketable stock. The market has slumped off some under pressure of green, undesirable stock. Fall pigs are still scarce and high, going at \$3 each. Meat stock is also scarce and high and milch cows are no cheaper. Fresh cows bring fabulous prices. Fine weather for crop gathering which is being carried on rapidly.

Wayne Co., Oct. 17.—The weather is fine, having had no frosts to do any damage to speak of. Potato digging in progress, yield about half a crop, tubers good size but very few in a hill. Corn husking commenced. Corn crop fair, yielding about an average. Wheat all sowed and looking well. Wheat, 90c bu; potatoes, 35c; butter, 28c lb; eggs, 24c dozen.

Cut Your Coal Bill 50 Per Cent.

You can save 50% on your coal bills this Winter by buying Riverdale Storm Sash and Doors. We save you one third. We are manufacturers selling direct to you. You need that extra profit more than your local lumber dealer does. Buy direct of us and save that much clear money. You also need that extra profit your dealer gets on your coal bill.

The easiest way to keep "Jack Frost" out of your house is to SEAL it up with Riverdale Storm Sash & Doors. Do you know that 50% of the cold comes in through the cracks around and under your windows and doors? How can you expect to have warm floors, warm feet, and good health when this is the case.

RIVERDALE STORM SASH and DOORS

are the logical means by which you can cut down your fuel bill. It not only checks all possibility of drafts coming in through the crack of your outside door but insulates it from the chill. The temperature around your doors will then be as warm as any other parts of your house.

We have a large assortment of stock sizes on hand all the time. We receive your order to-day and ship to-day. No waiting. Odd sizes are shipped on an average of 7 days and never more than 10 days from the receipt of order. Look out for the scarcity of coal this winter it is sure to come, be provided with Riverdale Storm Sash and Doors. Write for circular and prices to-day.

Chicago and Riverdale Lumber Co.,
13535 Indiana Ave.,
Riverdale - Chicago.

Free 200 Page Book About Minnesota

Compiled by the state, describing industries, crops, live stock, property values, schools, churches & towns of each county, and Minnesota's splendid opportunities for any man. Sent free by STATE BOARD OF IMMIGRATION, Room 289 State Capitol, ST. PAUL, MINNESOTA.

Farmers! Look at This! The "Astounding DuBrie"

15 kerosene Work Engines at \$65 each. (Regular \$90 engines.) Full 3 1/2 h. p., complete with tanks, governors, etc. Ready to run. We Want Fifteen Men, power users or farmers, to use and demonstrate these fifteen Highly Finished Engines in fifteen different localities. Each outfit guaranteed to run on other sizes up to 20 h. p. FREE engine circular tells all about them. Let one of these reliable work engines take the heavy load off your shoulders. It will pump water, saw wood, grind feed, turn the wringer, washing machine, fanning mill, grindstone, etc. Free information bureau tells you what kind of engine you need. Come to Detroit if you can, or write to the

DUBRIE MOTOR CO., Detroit, Mich.
(The Oldest Kerosene Engine Works in Michigan.)

FARMS AND FARM LANDS FOR SALE OR EXCHANGE

FARMS FOR SALE—\$35 to \$100 per acre. Stock, dairy and truck farms. State kind and size wanted. D. R. Rees, 724 Dollar Bank Bldg., Youngstown, Ohio.

The Best Located and Improved Farms in Mich. for the money. E. N. PASSAGE, Plymouth, Mich.

FARMS FOR SALE—in Livingston County, Mich. Prices right. FRY & MANNING, Brighton, Mich.

MICHIGAN FARMS—Rich agricultural district. Write for list. TOLBERT & Co., Charlotte, Michigan.

OUR CO-OPERATIVE LIST quot's owner's price for select farms all over Southern Michigan. The Ypsilanti Agency Co., Inc., Ypsilanti, Mich.

I SELL FARMS in Oceana, best County in United States. Fruit, Grain, Stock, Poultry. Write for list. J. S. HANSON, Hart, Mich.

WESTERN NEW YORK FARM BARGAINS. Oldest and Largest Farm Agency in New York State. Write for free farm lists. SHIPMAN AGENCY, Dept. A, Buffalo, N. Y.

Farm Bargains—A splendid farm of 100 acres for sale near Clare, Michigan. Location and soil the best. \$10,000 takes it. If sold quick, Address, A. J. MORRIS, Freeland, Michigan.

\$1875.00 takes 28-acre fertile farm, plenty wood, timber and fruit; 7-room house; two large basement barns; abundance water; 1 m. school and church, 3 m. creamery, R. R. town. Cash, bal. time. Write for desc. b'klet. Valley Farm Agency, Owego, N. Y.

OWN A HOME—The Saginaw Valley has great inducements for the homemaker. Write today. UNITED REALTY CO., Saginaw, Michigan.

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

WHY PAY RENT when you can buy the Best Land in Michigan at from \$6 to \$10 an acre near Saginaw and Bay City. Write for map and particulars. Clear title and easy terms. Staffed Bros. (owners) 15 Merrill bldg., Saginaw, W. S., Mich.

MICHIGAN FARMS

FRUIT, STOCK and GRAIN FARMS in BARRY and EATON counties—1 to 300 acres, from \$15 to \$100 per acre; good water, roads and schools. We have one of the leading farm real estate agencies in Southern Michigan. References, any bank or merchant in Hastings. Send for free list No. 3. C. R. BISHOP & Co., Hastings, Michigan.

Fertile Farms in Tennessee \$5 to \$10 per acre

Fortunes are being made on fertile Tennessee farms raising big crops of grain and grasses of almost every kind, also Cantaloupes, Cabbage, Tomatoes, String Beans, Green Corn, etc., also Horses, Cattle, Sheep, Swine, Poultry and Eggs. Write me at once for Free Literature, which advises how to get one of these splendid farms for \$5 to \$10 per acre. Act quickly! H. F. Smith, Traf. Mgr. N. C. & St. L. Ry. Dept. F, Nashville, Tenn.

DELAWARE is the State for HAPPY HOMES

comfortable living, enjoyment and genial climate. Famous for fruit and quite as good for general farming. Land values are advancing, but farm property is not elsewhere with equal advantages—if such a place exists. For information address

STATE BOARD OF AGRICULTURE, Dover, Delaware.

Livestock and Crops Included 96-acre Farm near New York City Only \$5,500—part cash

Ten good cows, pair horses, 16 acres of corn, millet and potatoes and a barn full of hay go with this rich, splendidly located farm; near creamery, 3 1/2 miles to large town and railroad, only 65 miles to New York City, high healthful, elevation; land level, soil extremely fertile, produces splendid crops, keeps 22 cows, and pair of horses in spring and brook watered pasture, lots of wood, abundance of fruit; 7-room house, running water, barns, sheds, other outbuildings; to settle at once everything only \$5,500, part cash. Full details of this and other productive farms throughout the East, many with livestock, machinery and crops included, page 33, "Strout's Biggest Farm Bargains," illustrated, just out, copy free. Station 101, E. A. STROUT, Union Bank Building, Pittsburg, Pa.

FOR INFORMATION AS TO LANDS IN

The Nation's Garden Spot—THAT GREAT FRUIT and TRUCK GROWING SECTION—along the

Atlantic Coast Line RAILROAD

in Virginia, North and South Carolina, Georgia, Alabama and Florida, write to WILBUR McCOY, E. N. CLARK, A. & I. Agt. for Florida, A. & I. Agt. for Virginia, Alabama, Georgia, and the Carolinas, Jacksonville, Fla., Wilmington, N. C.

Woman and Her Needs

At Home and Elsewhere

HALLOWE'EN FUN AND GOODIES.

BY MARJORIE MARCH.

OCTOBER makes its bow of farewell with Hallowe'en, that feast when the witches hold sway. This can easily become a good opportunity for the country hostess to have the latch string out, for the very goblins will help to make it a success and the witches of fun and frolic will make the simplest preparations adequate for a good time.

All sorts of pretty novelties may grace the table at such an event, and autumn fruits, vegetables and flowers can be brought into play as decorations, with telling effect. Our pictures show two

number of correct guesses if so desired. Then all unmask and the usual fun of bobbing for apples, telling stories, etc., before the blazing fire on the hearth, popping corn and cracking nuts can be enjoyed.

Hallowe'en Table Decorations.

Decorate the dining-room with sentinels of tall cornstalks on either side the entrance doors, these tied back by red ribbons, and the husks pulled back to show the yellow ear.

The table may be dimly lighted with jack-o'-lanterns and with candles stuck

supper table, many prefer to have the lights turned on while the guests are enjoying the good things, thinking that it is more hospitable and that all enjoy their supper more if lights are blazed forth instead of being subdued.

The menu can be according to any hostess' fancy, but usually consists of one or two substantial hot dishes, followed by old-fashioned goodies and ice cream as an ending if desired.

Hallowe'en Chicken.

Cut cooked chicken in small pieces and add an equal number of slices of cold roasted veal. Heat one cup of chicken soup and season to taste, with salt, pepper and a little mustard. Add the chicken and veal and let cook for five or six minutes and then add three tablespoonfuls of currant jelly. Serve hot, garnished with parsley.

Oyster Pies.

Pretty little blue baking dishes in which to serve small pies make them attractive in themselves. Line them with paste and fill with washed oysters and add to them a sauce made by adding to the strained oyster juice a little milk, the yolks of two eggs, a little flour, salt, pepper and a dash of nutmeg. Cover with paste and bake until brown. Any kind of meat would also serve as the basis for Hallowe'en individual pies.

Chicken or Turkey Croquettes.

Chicken or turkey croquettes with a stuffed olive in each are nice for an evening repast. Have the platter edged with small mounds of cranberry jelly, which makes a delicious accompaniment and looks pretty as well.

Corn Cream in Cups.

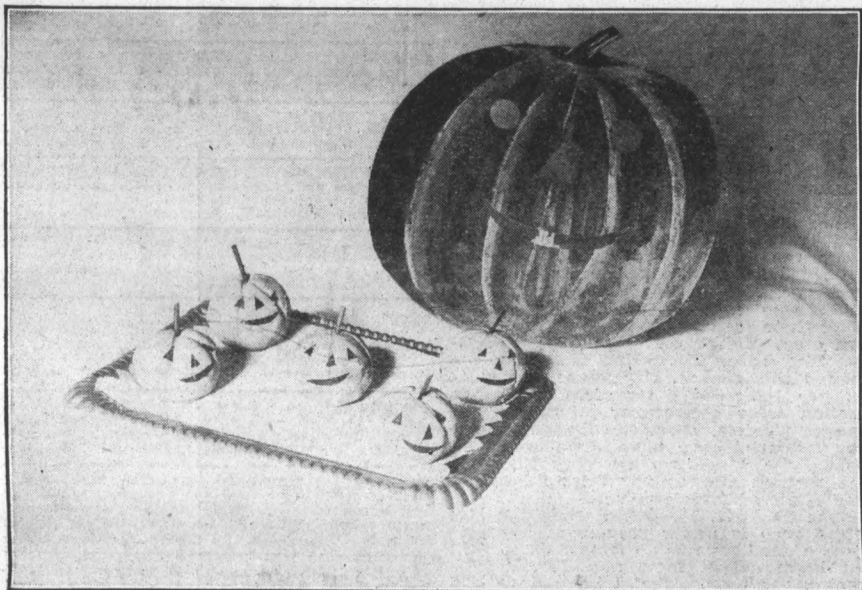
Chop fine a can of corn in a chopping bowl. Let simmer with a little water for five minutes. Heat two cups of milk with a slice of onion, remove the onion, add the corn and salt and pepper. Make a cream sauce with two tablespoonfuls of butter; two of flour and the addition of the corn liquid. Serve in blue bowls or cups, with crackers or small slices of toast.

Apple Dumpling Baked.

Make a delicious crust of one cup of cream, one heaping teaspoonful of baking powder, salt and flour to roll. Cut in rounds or squares. Have apples sliced and put them on some crust, covering with cinnamon and sugar to taste. Bake in a hot oven and serve with cream or whipped cream, or with foamy sauce.

Nut Cake.

Cream one cupful of granulated sugar and one-half cup of butter and gradually add one cupful of chopped nut meats.



Jack-o'-Lantern Ices.

pretty fancies for the table. One is small chocolate cakes called "Mid-night cakes," with quaint little paper owls on twigs perched on top; the second illustration shows ices in small pumpkin shape, faces pasted on with gilt paper to make them represent tiny jack-o'-lanterns; or, if desired, the faces may be cut from bits of citron and angelica, and eyes, nose and mouth be embedded in the cream with the same effect. A pumpkin jack-o'-lantern also smiles in the background. I give below some table suggestions, also some delicious recipes for a Hallowe'en spread.

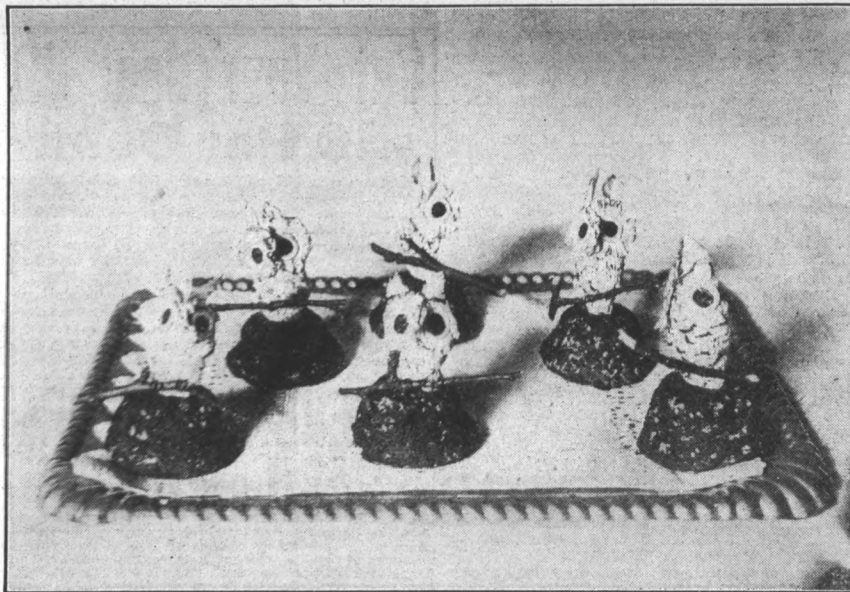
The invitations may be cards cut from yellow cardboard in pumpkin shape, decorated with witches, black cats, bats, etc. If a hostess cannot decorate these herself with water colors, she can cut the symbols from black paper, using a pattern from similar pictures to be found in many books, magazines, etc., and paste these little decorations on. These cunning cards may be made as booklet covers, having the invitation written on paper leaves within, or the bidding may be written on the round cards themselves. Green, red or yellow baby ribbon tie the booklets together.

The rooms of the house may be decorated with great branches of autumn leaves and with pumpkin jack-o'-lanterns. Red and yellow festoons of crepe paper are also effective, while bats, cats and owls may be cut from cardboard and hung about with striking result.

When all are gathered together, and all may be asked to come in sheet and pillow case masquerade, the hostess herself being so garbed, each one may be given a little booklet with number in it, and each person is also given a number to be pinned on to serve as a means of identification. Seat one guest at a time in the center of the dimly lighted room and have the procession of masked figures pass before their gaze, giving them time to write down their guesses of identification by using the numbers on the people and writing their guess by the corresponding number in the booklet. The person recording his guesses has the privilege of asking each masquerader one question and there will be merry fun over the disguised voices. Some little gift may be given the one who has the greatest

in polished apples, some of the dishes being covered with pumpkin shell covers. In this case leave the stems of the pumpkins on for handles, and cut off only a small part of the blossom end, hollowing out the rest so that it can cover a dish easily and completely. A bright red table cover makes a pretty setting to the feast and a simple and effective center piece is a big chopping bowl filled with nuts and fruits and edged with a wreath of autumn leaves.

Another odd center piece would be a big round cake frosted white or with chocolate surmounted either by a doll



Mid-Night Cakes with Owls on Guard.

witch with the usual broomstick, an owl or a toy black cat. Grinning little jack-o'-lanterns make a circle around the cake. Another simple and pretty center piece is a big bunch of corn.

Bonbons in tiny toy kettles would make cunning favors.

Nuts, gilded, with tiny red apples strung on colored cords or gilded popcorn are all pretty to drape from the chandelier. While the dim lights are advocated by hostesses for the first glimpse of the

COFFEE WAS IT

People Slowly Learn the Facts.

"All my life I have been such a slave to coffee that the very aroma of it was enough to set my nerves quivering. I kept gradually losing my health but I used to say 'nonsense, it don't hurt me.'"

"Slowly I was forced to admit the truth and the final result was that my whole nervous force was shattered."

"My heart became weak and uncertain in its action and that frightened me. Finally my physician told me, about a year ago, that I must stop drinking coffee or I could never expect to be well again."

"I was in despair, for the very thought of the medicines I had tried so many times nauseated me. I thought of Postum but could hardly bring myself to give up the coffee."

"Finally I concluded that I owed it to myself to give Postum a trial. So I got a package and carefully followed the directions, and what a delicious, nourishing, rich drink it was! Do you know I found it very easy to shift from coffee to Postum and not mind the change at all?"

"Almost immediately after I made the change I found myself better, and as the days went by I kept on improving. My nerves grew sound and steady, I slept well and felt strong and well-balanced all the time."

"Now I am completely cured, with the old nervousness and sickness all gone. In every way I am well once more."

It pays to give up the drink that acts on some like a poison, for health is the greatest fortune one can have.

Read the little book, "The Road to Wellville," in pkgs. "There's a Reason."

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

GOULDS

RELIABLE FARM PUMPS

will insure a generous supply of water when and where you want it, no matter where the well or spring may be located. They are durably made, moderately priced and cost little to keep in order. Built to meet every condition and service. Write for our free book.

"Water Supply for the Home"

It will tell you how best to solve water supply problems—pumps \$3.00 to \$300.

When you buy a pump see that it bears the name "GOULDS." It is a guarantee of satisfaction.

THE GOULDS MFG. COMPANY
No. 86 West Fall St., Seneca Falls, N.Y.

Heal Babies' Tender Skin



That cruel, burning inflammation which gives such misery is cooled and soothed by a touch from fingers dipped in Heiskell's Ointment. Perhaps the trouble is eczema?

Heiskell's Ointment

will heal it just as effectually as it does less serious skin troubles, like blackheads, pimples, rash, sunburn and freckles. Heiskell's Ointment cures ALL skin diseases and Heiskell's Medicinal Toilet Soap keeps the skin clear and healthy.

All druggists sell Heiskell's preparations. Write for our new booklet, "Health and Beauty."

JOHNSTON, HOLLOWAY & CO.,
531 Commerce St., Philadelphia

Always mention the Michigan Farmer when writing to advertisers.

with a heaping teaspoonful of powdered sugar. Into this stir one teaspoonful of cornstarch dissolved in three tablespoonfuls of cream. Add the beaten whites of the eggs. Fry in a hot omelet pan, spread with apricot jam, fold and sprinkle over with powdered sugar.

Hallowe'en Salad.

Take equal parts of sliced celery and tart apples. Serve with this dressing: Two eggs, well-beaten, pinch of salt, a teaspoonful of sugar, a pinch of mustard, tablespoonful of flour, half cup of vinegar, half cup of cream, butter the size of a walnut. Cook until thick in a double boiler. Mix with the apples and celery and add a few chopped nuts. Serve in hollowed-out apple cases with a spray of leaves stuck in the top of each.

Pumpkin Tarts.

Line small tins with pastry and make this filling: One and a half cups of dry sifted pumpkin mixed with a cup of sugar, a cup of milk, a tablespoonful of molasses, two beaten eggs, two tablespoonfuls of melted butter, teaspoonful of ginger and one of cinnamon, pinch of salt. Bake until set. Decorate each tart with a little whipped cream on top.

English walnuts make the basis of cunning little favors for Hallowe'en. When using the walnut meats preserve the shells carefully. Write little fortunes, tuck them inside of a shell and paste the shell together again. Tie each shell about with either a red or a yellow bow of baby ribbon.

Little black-cat pincushions make odd favors. These are easily made from pieces of black cloth and may have green or yellow bead eyes sewed on.

Tiny gifts may be tacked inside of the wee jack-o'-lantern favor boxes or lanterns which can be bought at any favor shop for a mere trifle. Little pen wipers cut round with "faces" of red flannel sewed on would make delightful souvenirs of a Hallowe'en supper. Squares of fruit cake put in tiny gilded boxes with a black witch painted on the cover would also be suitable. A red ribbon may be tied about these little boxes and on them may be written:

One, two, three,
Dream on me,
A witch's spell
Will serve thee well
Thy lover's name
In dreams I'll tell.

TOWN OR COUNTRY FOR THE RETIRED FARMER.

BY ELLA E. ROCKWOOD.

Taking the country over there are probably a greater number of farmers who retire from active life with sufficient means to support themselves than of any other vocation or calling. Our villages and cities are filled with the comfortable homes of these men, envied of those less fortunate financially. Their farms are either sold and the proceeds invested where they bring in a good income or they are rented out, thereby securing the same result.

As a rule your retired farmer enjoys himself pretty well unless wholly deprived of those things which have heretofore been part and parcel of his existence. If he has a horse, a few chickens and a garden spot he can get along fairly well, for these serve to take up his attention and furnish the outlet for his energies which seems so essential to his contentment amid new surroundings. Left with no such diversion time is apt to hang heavy on his hands and he pines for his old-time activities.

As I have observed individual cases of this class I find that the women of the family take rather more kindly to town life than the retired farmer himself. There is more to interest and hold them than men. When there is nothing in particular to do, a man finds time hanging heavily on his hands, whereas a woman always has her household duties which occupy her days. Besides this, there is the inevitable sewing and mending which follows her wherever she goes. She also falls easily into church work when she moves to town and there finds a welcome, for are not the churches everywhere ready with the glad hand extended to those who are willing to work? She joins the Aid Society and the W. C. T. U., pleased at the prospect of getting in closer touch with the institutions which heretofore she has enjoyed for the most part without personal participation.

There are usually no children in the family of the retired farmer. They are married and gone into homes of their own. The parents have passed through the stress and strain and entered happily

upon a less strenuous period which is their just reward.

One frequently hears exchanges of confidence between people of this class which would indicate that after all life in town to them is not wholly satisfying. It is something like moving old trees which do not take kindly to the changed environments. There is a hankering for old associations like those of the family in Riley's familiar poem, "Back to Grigsby's Station." The old familiar landmarks cannot be transplanted and the eye misses them. The big elm or maple which shaded the door, the deep well where the coldest draught was found on a hot day, the view across meadow and creek to the green woods which in autumn flame with a perfect riot of gorgeous coloring. These will be missed, as well as the hearty greeting and ready sympathy of neighbors long tried and found true. There will be a certain aloofness toward any new family moving into town in sharp contrast to the free and easy cordiality of country communities.

But just as there is a difference of temperament in us, with no two people exactly alike, so some will take kindly to the change from farm to urban life while others will always look back with regret to the quiet of the country with its freedom and independence, its many luxuries which are high in price in the city, if obtainable at all, to its wideness of vision, its all-out-of-doors, with sky and field and forest, an unproduced charm elsewhere. Resentment will be felt at boundaries which cramp and confine, at raucous noises, chimneys which belch soot-laden smoke and the total loss of personal or property rights met at one's very threshold. Alien feet may trample treasured flower beds and fruit or blossom may be appropriated with ruthless hands, if such there should be, without so much as "by your leave."

With all so-called modern conveniences so readily procurable in country homes as at the present time, with telephone, rural delivery and good roads for the greater part of the year, it seems to me there is slight necessity for retired farmers to move to town. Why not retire and yet not retire? Why not remain on the farm even if it shall pass from the owner's actual management? Why not stay at home and take life easy, as well as to tear up the old roots and transplant them to new soil?

I know some who are doing this, to the supreme satisfaction of all concerned. These men keep a cow or two, the family horse and a flock of chickens. They have the home and the garden. This gives them plenty to do, also the leisure to enjoy themselves. The fields are rented on shares or for a cash consideration ample for their needs. The farm will care for them to the end and no possibility of loss through unsafe investments. Town or country, which is best?

SHORT CUTS FOR HOUSEKEEPERS.

A teaspoonful of cold water added to the white of an egg causes it to whip more quickly and increases the quantity. —R. M.

Try using a raw potato to clean your window. Cut a large one in halves and rub the window, cutting off a thin slice as the potato gets dry, but do not dip in water. Leave the glass until the milky water out of potato is dry, then wipe with a clean towel, and your window will shine. —C. R. L.

By going over my kitchen range once a day with the refuse oil from our cream separator, I am able to prevent it rusting in the least degree. Pour the oil, each time separator is used, upon a cloth kept for the purpose, thus making double use of the oil. —A. B. C.

Cut the seam off the closed end of a pillow case, then fold it, so the middle or worn part comes on the outer edge. Seam across the bottom. It will wear as much longer as to turn the outer edges of a sheet to center, which many of the sisters have already tried. —C. C.

A good way to mark flower seeds, when planted, so that there may be no "doubting up" when the second ones are sowed, is to split a new clothes pin with a sharp knife, and with ink, or indelible pencil, write the name of the seed on the flat, smooth side just cut. The clothes pin, or rather the half pin, may then be pressed into the ground, marking the place, and there will be no danger of papers blowing away, or sticks becoming mixed up with rubbish. The marks will be in place until the pins are taken up, when a sharp knife will be all that is necessary to pare away the old name, and the clothes-pin may be used again. —A. G.

I say
Genuine Joy
Genuine Appetite
Genuine Health
and therefore
Genuine Complexion
All come from
eating the
GENUINE



Kellogg's TOASTED CORN FLAKES

The standard set by Kellogg's is unequalled in any other flakes made from corn. The best white corn alone is used. Thus its crispy flavor is unequalled — its wholesomeness unquestioned.

The good effect of its continued use, upon the health, is evidenced by the clear complexion of its best patrons. But you must get the right kind.

None Genuine
without this
Signature

H. K. Kellogg



CONCENTRATED OYSTERS

—enable people, in all parts of the country, to enjoy OYSTER STEW as fresh, pure and wholesome as residents of cities who live near the oyster beds of Chesapeake Bay. Oysters are nearly 95 per cent pure water. By our new process this water is removed, leaving all the strength and flavor. This is reduced to a dry powder, placed in sealed bottles and will keep for years. One ounce will make more and better oyster stew than a pint of bulk oysters. When once used will sell without solicitation. We guarantee it absolutely pure under the PURE FOOD LAW. We have a large country trade where oysters were seldom used before. We want a reliable man or woman with a horse and buggy to work up and regularly supply the trade in each community. Only one who can furnish best of references need apply for a position. Good pay and steady work all the year to the right person. Write for particulars about this new economical food product.

Enclose 30 cents and we will send two sample bottles of the oyster powder, which will make three quarts of the richest kind of oyster stew.

Columbian Concentrated Food Co., Washington, D. C.

NEW HOME



No other
like it.
No other
as good.

Warranted for All Time

Not sold
under any
other name.

The NEW HOME is the cheapest to buy, because of its Superior wearing qualities. All parts are interchangeable, can be renewed at any time. Ball bearings of superior quality. Before you purchase write us for information and Catalog No. 4

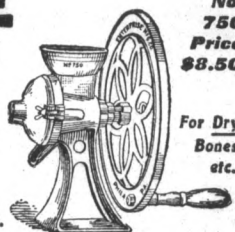
THE NEW HOME SEWING MACHINE CO., Orange, Mass.

ENTERPRISE

Bone, Shell and Corn Mill

A money-saver and money-maker. Cracked grain, ground bone and shell, increase egg production when fed properly. The "ENTERPRISE" Mill is a wonder. Strongly built, reliable, runs easily and won't get out of order. Grinds dry bones, corn, oyster and other shells, etc. Price of Mill shown, No. 750, is \$8.50. Weight, 60 lbs. Grinds 1½ bushels of corn an hour. Hardware and general stores everywhere.

Catalogue FREE. Famous Recipe Book, "The Enterprising Housekeeper," for 4 cents in stamps. THE ENTERPRISE MFG. CO. OF PA., DEPT. 48, PHILADELPHIA, PA.



No. 750
Price
\$8.50

For Dry
Bones
etc.

GAS AND GASOLINE
ENGINES

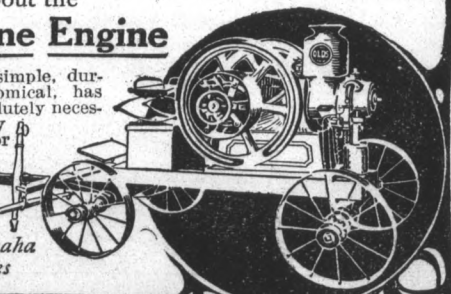


This catalogue is waiting for you
Send for it; it's free, new and interesting. You should certainly know about the
Olds Gasoline Engine

before you buy. It is simple, durable, the most economical, has exclusive features absolutely necessary to a satisfactory engine. No repair bills for one year.

Seager Engine Works

915 Seager St., Lansing, Michigan
Boston Philadelphia Binghamton Omaha
Kansas City Minneapolis Los Angeles



HOME AND YOUTH

THE PROGRESS OF THE PANAMA CANAL.

(Concluded from last week).

On the Pacific side in the division so designated, work is progressing rapidly on the dams and locks. At Pedro Miguel the excavation for the locks was completed down to grade in July, 1908. This entailed the removal of 1,071,696 cubic yards, which amount is included in the total yardage under the Culebra section. The single pair of locks of the same dimensions as those at Gatun, is to be connected to the rock portion of an adjacent hill to the northwest, by a concrete wall. The dam extending across the valley will be of earth and rock with an elevation of 107 feet above the sea and the top width will be 40 feet. As the dam will form a convenient dump for spoil from Culebra cut, its width will be considerably increased beyond the actual requirements. The maximum pressure will be due to a head of 40 feet, the average being 25 to 30 feet. These works will form the upper or southern end of Gatun lake. The lock will rest on solid rock and is of such quality that a portion of it was left to form the wall between the lock chambers up to the level of the culverts, thus affording the maximum of stability.

In locating the site for the Miraflores dam and locks, about two miles south of Pedro Miguel, 266 test holes were bored from which it was determined that the locks will rest on rock of ample strength for the foundations. Excavations for the two pairs of locks were undertaken during the year with eight shovels in use. There were 12 locomotives and a proportionate number of cars in service. The ground of the lock site is low on both sides and of soft material, and the spoil is largely used in making fills to form a part of the back filling required. To the east of locks examinations developed good foundations for concrete dams, and the one from the locks to Miraflores Hill, 750 feet in length, will be of this material. The Cocli river crosses the lock site from the west and is a formidable stream in times of heavy freshets, though the water runs off very quickly. A diversion channel was cut through the hills 1 1/4 miles west of the lock site and a dam very nearly parallel to the axis of the locks, extending from the head of the locks to Cocli Hill, was required to force the stream through this diversion, and is, therefore, of a permanent character. The west dam at Miraflores will be of earth, 2,300 feet in length, heavily rip-rapped, 40 feet wide on top, which elevation is to be 70 feet. The dam will be founded on impervious material and will be subjected to an average head of 30 feet. These works will impound the waters of the Rio Grande into a small lake with an eleva-

tion of 55 feet, the northern end of which will be at the dam and locks at Pedro Miguel. The flight of two locks at Miraflores will reduce the canal to the sea level of the Pacific; the distance to the waters of the Bay of Panama is about five miles; and the deepening of the old French Canal, an aggregate of 18,000,000 cubic yards previously referred to, is necessitated.

About 2,000,000 cubic yards of broken stone will be required for the concrete at the Pacific works, and is being obtained at La Boca. The stripping of the upper covering of the quarry has been carried on, the material being used in the building of beds for the tracks to the dam and lock sites. The sand needed for concrete is being obtained at Pointe Chame, there being an abundance of the proper quality in a protected bay. Six sand barges and a tug for towing have been assembled at the La Boca shipyard.

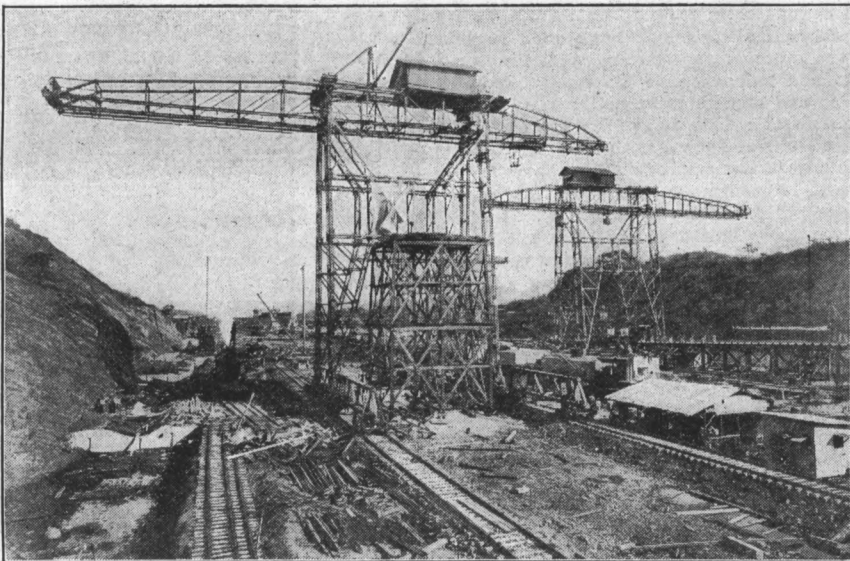
To maintain the great quantity of machinery of various kinds in a good state of repair so as to develop the highest efficiency, two large shops have been built and equipped with all modern appliances

nilal is equipped for handling light repairs to engines overnight.

At Empire the shops perform general repairs to steam shovels, steel car equipment, rock drills, and similar excavating machinery. Of the 100 steam shovels in service during the year, 55 were given general shop repairs, at a cost of \$0.00833 per cubic yard of material removed by them. The cost of running repairs, however, to steam shovels, was for the entire year \$0.01509 per cubic yard for direct labor and material.

The air-compressor plants, which furnish air for the rock drills, are operated at these shops, and compress each month 411,000,000 cubic feet, the cost in June, 1909, being \$0.037 per 1,000 cubic feet. Light repairs to all classes of equipment at the southern end of the canal were handled at the Paraiso shops, which had 41,000 square feet of floor space. This shop has since been dismantled, the machinery being moved and set up at the other shops, thus bringing such work within a smaller range and with reduced expense.

At the end of the 12 months there had

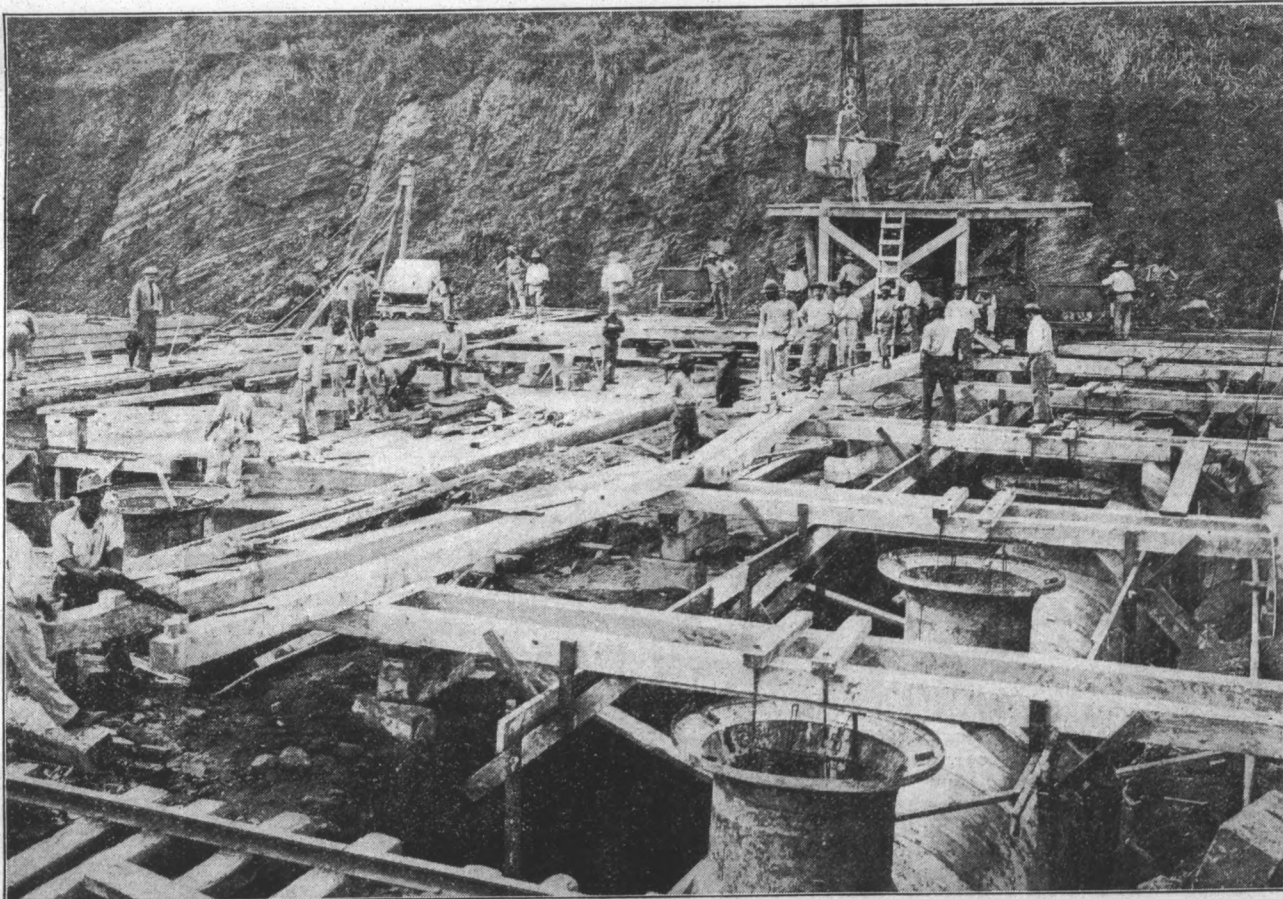


Pedro Miguel Locks as they Appeared in April of this Year.

to take care of break-downs of whatever nature. The largest of these shops is located at Gorgona, and covers 21 acres having a floor space of 307,000 square feet. Here the shop repairs are made to locomotives, and such foundry and manufacturing work as is necessary. About one-third of the output was manufactured material, including 4,586,342 pounds of gray-iron castings, 50,000 pounds of semi-steel castings, and 333,416 pounds of brass castings. The iron castings cost for labor and material \$0.029 per pound, and brass castings \$0.1651 per pound, including the cost of 1,462 patterns. Engine houses were built at convenient points along the canal, as also coal chutes and water tanks. The engine house at Taber-

been erected and made ready for service 100 steam shovels, 253 locomotives, of which 164 are American built, 3,589 American cars and 621 French cars, 25 cranes, 30 unloaders, 10 track shifters (manufactured on the Isthmus) 24 bank and earth spreaders, 46 unloading plows and 16 pile drivers (also made on the Isthmus). There were employed in the department during this time 2,208 men, and the expenditures amounted to \$5,645,222.

The relocation of the Panama railroad is made necessary by the overflow of the existing roadbed on the completion of the lock type of canal. From the Atlantic terminal, at Mindi, about five miles, and from Corozal to Panama and La Boca,



Cross-Section of a Pedro Miguel Lock Showing Lateral Culvert Forms in Place.



The only American made shells with steel linings.

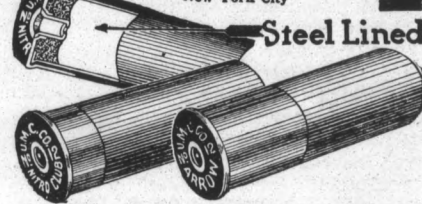
Winners of every Interstate Handicap for two years straight. A record never equalled by any other ammunition. The winning amateurs in these 10 Interstate handicaps chose Arrow and Nitro Club shells.

The Steel Lining in these shells protects the powder from moisture, insuring a uniform snappy load in all kinds of weather.

Sooner or later you'll try these shells—and always shoot them. Why not today?

"Game Laws 1910" mailed free.

The Union Metallic Cartridge Company
Agency: 299 Broadway,
New York City



Steel Lined

The Century BOOT

(Beacon Falls Brand)

If you had rubber boots made to order, you couldn't have them made better than the CENTURY BOOT. It is made of the best rubber produced. The vamp is made extra strong. To prevent cracking at ankle an extra pure gum, no-crack ankle reinforcement is used.

IT IS THE CHEAPEST

because best—best in material, best in workmanship, and best for wear. Those facts are also true of the entire Beacon Falls line. When you want a high grade satisfactory rubber boot or shoe, insist that you be shown goods bearing the Cross. It insures you quality and service. If you can't secure Century Boots from your dealer, write us. Send his name. We will see that you are supplied. Send for illustrated booklet.

BEACON FALLS RUBBER SHOE CO.
New York Chicago Boston

ARE YOU RUPTURED



This truss has cured thousands. Why not you? Sold under an Ironclad Guarantee. The Truss that HOLDS and CURES ALL FORMS of HERNIA; for adult, youth, and infant. Lady attendant in office. Consultation and examination free. Our form for self measurement has reduced ordering by mail to an exact science. Call or write for complete information. **APPLEY TRUSS CO., 48 MONROE ST., GRAND RAPIDS, MICH.**

SALES AGENTS WANTED—Responsible Men or Women, every county. Pleasant, dignified employment, all or part time. Exclusive contract, good pay. Stopher Sales Agency, Box 107, Grand Rapids, Mich.

LEARN AUCTIONEERING at the world's greatest school. No failures where students apply themselves. Every branch of auctioneering taught by instructors of unquestionable ability. Winter term opens December 5th, following International Stock Show. Tuition includes free admission to the Show. We are anxious to send you catalog with full particulars. **JONES NAT'L SCHOOL OF AUCTIONEERING**, 2856 Washington Blvd., Chicago, Ill. Carey M. Jones, Pres. Orval A. Jones, Mgr.

Don't Go to the City unprepared to seek a position. Qualify at home as a Stenographer and Fast Touch Typewriter. We teach you by mail. Get our plan. **SERVICE CORRESPONDENCE SCHOOL**, 202 Press Bldg., Ann Arbor, Michigan.

SALESMEN WANTED—To sell FRUIT TREES & PLANTS. Free outfit. Commission paid weekly. Write for terms. Mitchell's Nursery, Beverly, O.

Let Me Start You in Business! I will furnish the advertising matter and the plans. I want one sincere, earnest man in every town and township. Farmers, Mechanics, Builders, Small business men, anyone anxious to improve his condition. Address Commercial Democracy, Dept. D 30, Elyria, Ohio.

Wanted-Agents to sell Farmers Account Book, Quick Seller, Big Inducements. Highly Indorsed. L. L. SYPHERS, Ft. Wayne, Ind.

the old line will be used, but between Mindi and Corozal the road will be carried to the east of the present location, and at a general elevation of 95 feet, or 10 feet above the normal surface of Gatun lake. A number of connecting tracks have been started from the operated line to the new location, and such sections of the embankment built up as would materially aid in canal construction. At the crossing of the Chagres River at Gamboa, a new steel bridge 1,320 feet long has been constructed on concrete piers, in order that dirt trains may reach the new dumps on the relocated road. The old roadbed crosses the site of the Gatun dam at the head of the locks, and it was necessary to transfer the road to the new location so as not to delay the work on those structures. This new line from Mindi to Tiger Hill, a distance of 4½ miles, has been operated for about two years.

The municipal engineering work of the previous year consisted of completing the waterworks, sewerage systems, and paving in Panama and Colon, the cost of which is being reimbursed to the United States through the collection of water rates in those cities. Other work of this character and road making in the Canal Zone was done as planned. There were 505 new buildings erected in 1907-8, and there are now ample accommodations for all classes of workers, both bachelor and married; new school buildings have been built and old ones reconstructed; fire department stations constructed; adequate buildings provided for the courts, post-offices and other administrative offices. The supervision of these departments is now delegated to the chiefs of the divisions within whose precincts they lie.

To aid in the sanitary improvements of the Canal Zone, several reservoirs have been built to supply pure water to the towns and engineering headquarters, and nearly all the houses have been connected with running water. As a result the death rate among the white force during the year was reduced to 15.34 per thousand. About one-third of these deaths were due to accidents and violence of various kinds, which leaves the death rate from natural causes about 10 per thousand. Among the negro employees, which averaged 31,000, the death rate was 19.48 per thousand, as compared with 45.94 that of the year 1905-6. Of the total force of 43,057, the average for the year, the death rate was 18.32 per thousand, which is less than half the rate for 1906-7. The total population of the Canal Zone is 112,000.

"Stand by the men who are building the Panama Canal," is the slogan of the President and the administration; and with such expert judgment every American may feel assured of the successful outcome—the completion of the great Isthmian Canal, and within the specified time.

LITTLE ESSAYS OF FACT AND FANCY.

BY CARL S. LOWDEN.

Having Opinions and Precepts.

Did you ever see a boat without a rudder? Isn't it helpless? Did you ever see a ship with a pilot that didn't know the channel? Such a pilot would have to trust to luck and appearances. The passengers on board the ship would be in imminent peril all the time.

Well, that is the condition that a man without definite moral opinions or without fixed principles is in. He will probably blow down with the first moral wind that blows.

Some people have the drifting habit. They don't do anything that is essentially wrong, nor nothing that is particularly right. They are easy going people and take life as it comes, but when they are suddenly assailed by some moral question they fall because they have no positive answer prepared. They can't say "No," and back it up with reasons because they have not thought about the question. So they do the easiest thing, and the easiest thing is often wrong.

"Is it morally wrong to drink intoxicating liquor?" There are some people that have never tasted intoxicating liquor, but they haven't any thoughts upon the right or wrong of doing so. When somebody says, "Have a drink with me," it is easy to say "Yes." Such an answer will not offend. So they take the first step downward.

It is always better to be prepared for whatever may happen. A little forethought is better than much regret when it is too late. If the man who was asked to drink had thought it out before, it would have been easy for him to say "No." Perhaps the man would have in-

sisted "Why not?" The answer could have been "I never drink." It would have been acceptable because the drinking man would have seen in it a fixed principle, and everybody respects the man with fixed ideas.

A political campaign is a campaign for the "floaters," men who have no definite precepts. The campaign is not for the men who have thought it out, and come to a definite conclusion. So it is with a campaign of evil. It assails the "floaters," the drifters, and these are the young people. They are too young to have many fixed ideas. So they fall as wheat before the sickle.

There is one thing that parents should know: children are never too young to have opinions and fixed principles on moral issues. Every parent wants his child to be an influence for good, but this will not result if the parent is slow and haphazard and does not forestall the call of evil.

WAYS OF HELPING THE TEACHER.

BY MRS. G. HOWARD SMITH.

How many stop to think what the teacher, the real teacher, is doing for them? What would you do without a teacher? Could you have time to give your children the same amount of personal help every day that the teacher gives? "But," says one, "We pay her for it." What per cent of her salary does each family pay? Let us see what a real teacher is doing.

She is at the schoolhouse to greet your children with a smile every morning. She makes them as comfortable as possible. She imparts knowledge, guards their morals, inspires them with higher ideals, and develops a greater love for home and country. She is doing her best to take the place of both father and mother while your children are under her care. She is helping you train your children for noble usefulness. What can be a greater joy and blessing than seeing one's children grow into grand and noble men and women?

How can you help the teacher? See that your children start for school in a happy frame of mind. Send them forth with a smile and let them know you are expecting them to do what is right and good, to be kind and polite, and to do their work cheerfully and well. They will not disappoint you. And what a beautiful atmosphere it gives the schoolroom. Do not be afraid to let them know you really appreciate what they do.

Have you a nice picture, one that your children love? If so, cannot you loan it for a term to be hung in the schoolroom? The value of a beautiful picture cannot be overestimated. Some beauty loving little one may not have a picture at home. Some one else may have a picture, when you take yours, to hang in its place. May be someone has a vase to spare for a while. A pretty flower is prettier in a neat vase than in an ink bottle or a broken half-gallon can.

Spend a few moments every day or two thinking how you can help the teacher, and when doing so don't forget that she is away from her home that is dear to her, or that she may have no home. Try to make her happy while she is in your district, for it is of vital importance to the school that the teacher be happy and cheerful.

Very few parents visit the school often enough. Some parents, especially the fathers, never go. Just try it this term and see if you are not interested enough to go again. Keep in mind the fact that parents and teacher should join hands and hearts in surrounding the children with good, wholesome influences in the home and the school, and that more can be accomplished by co-operation.

ONLY.

BY MARIETTA WASHBURN.

Only a day of sunshine,
In the dismal days of fall,
When the bobolink was silent
And the quail had ceased to call.

Only a meadow lark sitting
While trilling the sweetest note;
The breezes bore the song aloft
Which he shook from his tiny throat.

Only a hunter, roaming
Out in the open air,
Chanced to pass by the bending weed
While the lark was sitting there.

Only the crack of a rifle
That awoke the echoes there—
A song was stilled forever,
On the hillside brown and bare.

Only his sad mate calling,
And her calling was in vain,
For his form, so still and lifeless,
Lay upon the wind-swept plain.

Only a song, gone forever,
That was robbed from the prairie vast,
A song trilled on summer evenings
When the hills their shadows cast.

650,000 Women Get a Bargain

Over 650,000 women were on the subscription lists of **THE LADIES' HOME JOURNAL** when it was decided to publish the magazine twice a month instead of once a month. The subscription price of \$1.50 per year remained the same, giving 24 magazines for the same money as for 12.

The other 700,000 women who buy the magazine each issue pay 10 cents instead of 15 cents.

Every woman can get the same bargain now—

\$1.50 a Year

Will Bring You 24 Complete Magazines Now

The Curtis Publishing Company

Philadelphia

THE YOUTH'S COMPANION

The Companion has lately added many new features, giving subscribers an increase of reading matter in the year's 52 issues equal to 400 pages of standard magazine size and type, but the quality remains as high, the price as low as formerly.

For the Boys

Expert advice on Football, Baseball and other Sports and Pastimes; Encounters with Indians; Fishing and Hunting Exploits; Handy Contrivances for the Young Mechanic.

For the Girls

Stories of Girls who have made their own Way; Stories of Obscure Heroines; Stories of everyday Girls at Home or in College; Careers for Girls; Useful Hints.

For the Family

Practical Short Articles about the Kitchen, the Parlor, the Garden, the Hennerly—everything that can be of help in making home more comfortable, more beautiful.

300

Glorious Stories for Everybody

Stories that hold the interest, Stories of Pluck, Stories of Perilous Adventures, Stories of Athletics, Stories of the Mountains and the Sea.

1000

Notes on what the World is Doing

The most recent of discoveries and inventions, terse editorials, science, mechanics, natural history, politics and government.

50

Popular Papers by Famous Writers

These Papers take one into the workshop and the laboratory, into remote corners of the world with intrepid travellers.

2000

1-Minute Stories, Anecdotes, etc.

These include diverting thumb-nail sketches, odd happenings, bits of biography and history, the best selections of wisdom, wit and humor.

THE CHILDREN'S PAGE—NATURAL HISTORY—WITH THE SCIENTISTS—CURRENT EVENTS—THE DOCTOR'S WEEKLY COUNSEL, Etc.



THE COMPANION ENTERTAINS EVERY WEEK
HALF A MILLION AMERICAN FAMILIES

All the Remaining 1910 Issues Free — How to Get Them —

EVERY NEW SUBSCRIBER who cuts out and sends this slip (or mentions this publication) with \$1.75 for the 52 issues of The Companion for 1911 will receive

FREE

All the issues for the remaining weeks of 1910, including the beautiful Holiday Numbers for Thanksgiving and Christmas.

FREE

The Companion's 1911 Art Calendar, lithographed in twelve colors and gold.

Then The Youth's Companion for the 52 weeks of 1911, equal to the contents of twenty-seven 300-page books of fiction, travel, popular science, sports and pastimes, etc., ordinarily costing \$1.50 each.

LC 171

Sample Copies of the Enlarged Companion and Announcement for 1911 Sent Anywhere Free.

THE YOUTH'S COMPANION, BOSTON, MASSACHUSETTS.