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FARM NOTES.

The Willow Hedge.

Wanting to set out a willow hedge row in the spring, would like to inquire thru your valuable paper for any information on the subject, and the proper time for cutting the stakes.

Jackson Co.

W. D. SMITH.

The cheapest method of planting a willow hedge is to secure the cuttings from the nearest source and plant them directly in the hedge row, since the propagation of the willow is so easy that it hardly pays to buy the plants. The latter, however, are not expensive. The best time to secure the cuttings is when the plants are dormant. They may be secured at any convenient time, during the winter and planted as early as conditions are favorable in the spring. The utility of the willow hedge is questioned by a great many farmers who have planted them, but in the writer's opinion they might be more frequently planted with profit, especially upon the level sandy farms. They form an excellent wind-break and grow timber rapidly, the latter fact being compensation for the ground which they occupy since the field crops will not grow thriftily for a little space next to the hedge row. Generally the willow hedge can be most profitably utilized for north and south fences, as the prevailing heavy winds are more often from the west than otherwise. Good wind-breaks are of value in preventing the snow from blowing in the winter as well as the dust from the cultivated fields in the summer.

Trees for the Wind-break.

Another subscriber who does not want to plant willows inquires what kind of trees he can plant that will grow quickly and make a good wind-break for his house, which is built on a slight elevation and gets a full sweep of the southwest winds. For this purpose there is probably nothing better than evergreens, the Norway spruce being more generally used than any other variety. These grow thick foliage from the ground and altho they will not attain a height to afford good protection from the wind for a number of years, yet the dense foliage which they will produce, will prove a most efficient protection when they once attain a considerable size. Undoubtedly, they would grow satisfactorily on this land as they appear to adapt themselves readily to a variety of soil conditions. In planting a wind-break of evergreens, one should figure on the appearance and effect of the trees after they are fully grown. The writer knows of one instance in which a wind-break of evergreens was planted in accordance with what was an artistic design on paper, but the trees came so close to the house on two sides after they became well grown, as to practically shut off the view from the living room. The owner hesitated long about cutting any of them, as every one had lived and made a practically impenetrable wind-break, but was finally compelled to remove some of them and, in a measure, sacrificed the good appearance of the place from the highway, in order to improve the outlook from the house itself. Thus, in placing

A FEW LEADING ARTICLES OF THE WEEK.

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a wind-break of this kind, it should be far enough removed from the house and its appearance when grown should be fully studied in order to avoid complications of this kind.

Sowing Alfalfa with Clover.

I would like to inquire if any brother farmer has had any experience with alfalfa, sowing it in the spring on wheat ground? The soil is sand, is in good condition and had an application of 200 lbs. of fertilizer per acre last fall. How would it do to sow June clover with it, and in case the alfalfa failed, have the June clover left? I got a very nice stand of alfalfa the past year by sowing it without any nurse crop, but am anxious to seed this piece also.

Saginaw Co.

C. C. S.

It is an excellent idea to sow a few pounds per acre of alfalfa seed with clover in spring seeding with wheat. However, one should not be disappointed if they do not get a good stand of alfalfa where seeded in this manner. It is very probable that after our soils have become thoroughly inoculated with bacteria peculiar to the alfalfa plant, it may prove as easy to get a stand of it, as it is of clover and that the same methods of seeding may prove successful. The general experience of growers at present, however, is that a better stand can be secured without a nurse crop. Some, however, are advocating the sowing of alfalfa with other

clovers and grasses. The writer saw an exceedingly fine crop of hay growing at the Michigan Experiment Station farm last year in which alfalfa was seeded in combination with alsike clover and orchard grass. There was a good stand of all the grasses and the crop was an exceedingly heavy one. Whether it will pay better to sow alfalfa in combination with other grasses or alone, is a problem to be determined in future experiences with it, but even in such cases it appears to be more profitable to sow without a nurse crop. However, by sowing two or three pounds per acre of alfalfa seed with the clover and other grasses used in spring seeding, it is claimed that a natural inoculation of the soil will take place, and it will be much easier to get a stand of alfalfa on the ground so seeded in future years.

Ashes as a Fertilizer.

Please tell me thru the Michigan Farmer the relative value of wood ashes, hard coal, soft coal and coke ashes, for sowing with clover seed, to furnish the necessary lime.

Calhoun Co.

F. Y. BARRY.

Unleached wood ashes contain about 32 per cent of lime. In addition to this value, they contain actual fertilizing material in varying degrees. Good hard wood ashes contain from 4 to 7 per cent of

potash and about 2 per cent of phosphoric acid. Soft wood ashes contain a much lower percentage of potash, generally not more than 2 to 3 per cent. Leached ashes contain but 1 to 2 per cent of potash. Thus good wood ashes have a high value for application to the land, both for their fertilizing value and because of their content of lime. They are applied in varying quantities from 500 lbs. to one ton per acre, with excellent results. They should, however, be applied to the soil independently of stable manure for the reason that the lime in the ashes liberates the nitrogen in the manure, thus causing a loss of this valuable element of plant food. They are best applied to the surface and harrowed in, while the ground is being fitted.

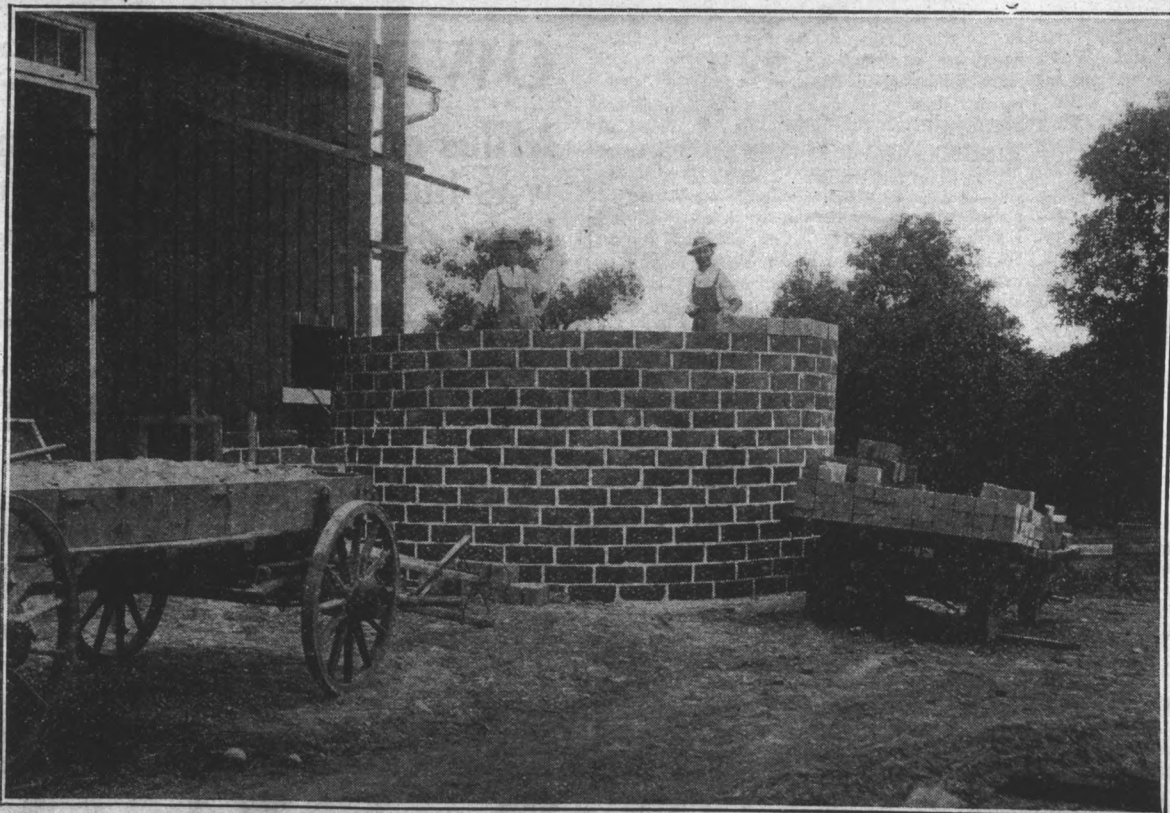
On the other hand, coal ashes from either hard or soft coal are of little value when applied to the soil. They contain very little available plant food or lime. About the only use that can profitably be made of them on the land, is to apply them to hard clay spots which will have a tendency to make the soil more loose and open and thus better its mechanical condition, altho for this purpose it would be better to apply some substances which will accomplish the same results and at the same time add some vegetable matter to the soil. Almost any coarse vegetable matter will accomplish this desirable result, but something of a lasting nature, such as corn cobs, will prove more satisfactory than any kind of vegetable matter which will decay quickly, for this purpose.

THE BUSINESS SIDE OF FARMING.

Communal Values.

In all cities there are portions which are termed the choice resident districts, Capitol Hill, The Boulevard, Park Avenue, or whatever may be the name, real estate is high. A few good residences attract others and the community advances the ground values. Shade trees, walks, lawns, etc., are associated with the residences, and aid in the increased valuation. Rural communities have never taken the full advantage of realizing upon what might be called communal, or community, solidarity as is done in the city. A mile of well kept roads and roadsides, shade trees, neatly kept surroundings, not necessarily expensive but comfortable buildings, shrubbery, flowers, and the inexpensive embellishments that cost so much less on the farm than elsewhere, will add many dollars of value. It is generally conceded that good roads are an included valuable asset to any farm and prospective buyers coming from sections where the roads are good, deduct or add to prices as the conditions warrant. Conditions are simply relative and commodious farm surroundings accentuate the lack of such environments and tend to improve the whole or drive the offending shiftless to a more congenial community.

When a stranger comes into a neighborhood he is not assigned his position socially and otherwise by a committee, but finds his place without assistance.



Building a Concrete Block Silo on the Farm of A. G. Barrett, of Oakland County. From a Photograph of the Silo shown in the issue of Jan. 8, showing frame of continuous door and method of laying blocks from inside scaffolding.

if congenial, otherwise he moves to where his class exists.

In the large concentrating plants for ores there are screens, jigs, tables, classifiers, etc., so a neighborhood is a self-acting social unit to determine its own classes and can add to its wealth in its surroundings. Civilization is the measure of a community's ability to act along certain lines of advantage as a unit.

The school district is a unit for the purpose of education. The old highway district for the purpose of road making. Similar units might be chosen for advancing farm wealth in its surroundings in community agreement on stock raising, seed improvement, etc. The various cow testing and stock breeding associations are along these lines.

The French farmers who breed Percheron horses expect, and do have, American buyers every year following the travels of some particular sire. There are certain sections of Michigan known thousands of miles away in the sheep range states, as the community of certain breeds of sheep, and where car loads of rams can be found.

"No man liveth to himself alone" is not only spiritually true but financially true. It is the capitalization of commercial wealth which measures the mental and also financial wealth of a neighborhood and somewhat like the skill of the physician or attorney, is not subject to taxation. The farmer who can maintain good surroundings and build up live stock to an improved standard, deserves recognition as an artist, for he produces the original which the painter artist but copies.

Our neighboring state, Wisconsin, has an organization of improved seed growers. The State Experiment Station distributes seed for testing to a membership all over the state. A meritorious variety in that way is widespread. It is claimed that the gain to the state in the matter of a variety of barley meant an increase of four million bushels over formerly grown varieties on the same area. One of the hardest lessons to learn is that concert of action among farmers is productive of financial gain. The advent of a trolley line and its ability to advance adjacent farm properties in value is generally conceded.

The opening of a quarry or any institution employing labor is an admitted factor of advantage to the surrounding farms. In other words, the combined concerted action of a community can exert itself for financial gain from its own resources, almost equally to that of any outside application of capital and labor. It is a shortsighted policy that does not embrace all farmers in any advantage by way of improved seed, or by advising new and improved plans of crop growth by and between farmers. The farmer who buries his talent like the husbandman of old, finally "loses that which he seemeth to have." Members of the Farm Life Commission in their report to President Roosevelt, were more and more impressed with the need of community action. Each neighborhood must take the initiative along its own lines. The same concerted action that made "Elgin butter," "Jefferson county, Wis., Holsteins," and "Hood River, Oregon, apples," is open to all neighborhoods.

Amortization.

In all mining operations the removal of ore each year depletes the total deposits to a degree. In manufacturing corporations a certain fund to cover losses from bad debts, wear and machinery breakage, etc., is provided. A rather unusual word, viz., Amortization, is used to express the idea. The same root word we have in mortgage, viz., death grip. Insurance companies refer to the calculations of the actuary as mortality tables. Farmers in the United States have probably not until the present time had the opportunity to consider the addition of an amortization, or restoration, fund to prices.

The Genesee Valley in New York retired before the virgin soil of Michigan in wheat growing and Michigan as a wheat state yielded to the Northwest, which illustrates the point above made. A competing section on new lands simply put the exhausted soil out of the running by making a price which did not have to include depreciation of the soil. Since, in a general way, the wheat lands have all been put under cultivation, with no new fields to establish the lower price, farmers can now add the cost of fertilizer or add to the price sufficient for a restoration fund. This is one of the reasons that leads to the conclusion that the general price level will remain high. Nitrogen, potassium and phosphorus have been mined from the soil and shipped away, until carloads and

trainloads of fertilizer are sent to replace the extracted elements.

In many mines are found what are called zones of secondary enrichment, and while this zone is being mined cost of production as compared to output is very low. When a virgin soil is cultivated likewise the cost of production is low. When leaner ores are mined and leaner lands cultivated, prices must be commensurate with the cost. Farmers unconsciously have followed the economic law of lower prices during the periods of cheap lands or virgin soils and, quite naturally, prices must advance to cover the cost of a restoration fund. When the cash crops of wheat, beans, milk, etc., sold off the farms, are measured in nitrogen, phosphorus and potash, there has been abstracted from the potential power in the soil if not returned not less than an average of \$2.00 per acre annually. Or, if measured in the average, 200 lbs. of commercial fertilizer at market prices, about \$3.00 per acre.

In Biblical history the Jews were commanded to leave the ground fallow every seven years, a recognition of the depletion idea. The late E. H. Harriman, in an address before a session of the American Mining Congress, stated "that manufacturers in 1900 received a return of 19.4 per cent on capital invested. National banks had paid, in the 40 years preceding 1900, an average annual dividend of 8 1/2 per cent and, in the three preceding years, an average of 10 per cent annual dividends, while farmers were receiving 9 per cent on the value of their farms." This information is of interest, since taxes and losses are figured out before declaring dividends and also depreciation in all cases except land where no restoration fund was included. And it is also of interest in the fact that farmers need make no excuses as to advancing prices for farm products nor apologize for maintaining advanced prices.

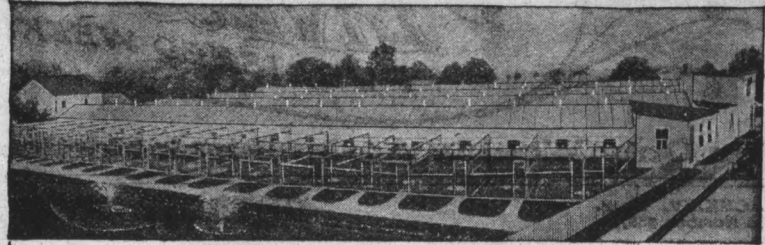
Shiawasee Co. JAS. N. McBRIDE.

THE AUTOMOBILE FOR THE FARMER.

President Taft has well described the day in which we live, as the "Automobile Age." The development of this age has been wonderful in its rapidity as well as in its results. A few brief years ago the automobile was looked upon as impracticable from a business standpoint, as simply the plaything of the wealthy. But the development of the automobile and the advancement of the age in which we live has brought about a great change in this regard until today the automobile is as much a vehicle of business as for pleasure, in many cases combining both business and pleasure to a degree which would once have been considered impossible. Not alone are the residents of the cities and villages finding the automobile useful, but many farmers are recognizing its usefulness both as a business and pleasure vehicle, and are purchasing machines in an ever increasing percentage. Of some half dozen farmers of the writer's acquaintance who have purchased automobiles during the last two years, every one is satisfied with his investment. True, they have not driven them with the recklessness which is too frequently shown by the tourist, but they have served an excellent purpose in the saving of much time in necessary travels as well as in adding much to the pleasure to be derived from life in the country. Where machines of standard quality have been so handled they appear to have given uniformly good results. Every one is an object lesson to others in his community, and we believe that it is only a question of a short time when the automobile will be far more general upon the farm than was the top carriage a generation ago. His familiarity with modern machinery makes the mastering of the mechanical details of the automobile much easier for the present day farmer than was the mastering of the details of the simplest farming machinery for the farmer of a generation ago. Ordinarily there will be no trouble in this direction. The saving of time which can be effected in making necessary trips to town and other points at a distance is a strong argument for the use of the automobile for the business farmer and, if he can afford it, as many can, there is every reason why he should have the automobile for pleasure that there is why perhaps 50 per cent of automobile owners who now maintain them for that purpose should enjoy the privilege. It costs something, of course, but it is the testimony of a majority of users of automobiles in all walks of life that it is worth the cost, and we believe that it will prove so with the business farmer.

A. R. FARMER.

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farms, stating that the farmer is judged more often by the horses which he drives than in any other way, and with the natural advantages of our state for the horse breeding business, there is no reason why the farmers of our state should not drive to town and work upon their farms, the very best horses to be found anywhere. He believes that this should be a matter of pride upon the part of every farmer.

In commenting upon the kind of horses the farmer should raise he expressed it as his opinion that for the general farmer the draft horse is the best type and, as a means of further elucidating "The Why of the Horse," he proceeded to illustrate by the use of a horse's skeleton and a horsekin. He stated that the first essential in a draft horse is two good shoulders of such form that a collar will fit to them easily, thus insuring that the horse can work without danger of sore shoulders, which unfit the draft horse for satisfactory service. Another requirement is that these shoulders should be comparatively straight, instead of oblique, as is the case in the carriage horse, for the reason that a shoulder so formed is better adapted to the pulling of a load and makes the draft of the traces more nearly at right angles with the shoulder.

The draft horse's shoulders should also be well muscled at those points where they are effective in propelling the body forward. In making this point clear, Dr. Waterman used the skeleton to show how the framework of the body is provided with levers which the muscles must move in propelling the body forward. He also used the horsekin to show what muscles are essential in the draft horse as well as those which simply serve the purpose of rounding him out and giving him that pleasing development which makes for symmetry and beauty. Dr. Waterman showed that the principle muscles of the shoulder which make for power in the draft horse is the group of muscles located above the forearm. The reason why a draft horse should be wide in the chest is because it gives plenty of room for these muscles between the bones of the shoulder and those of the chest beneath. The only other muscles of particular importance in the front end of the draft horse are the muscles of the forearm, particularly those in front, and for that reason the draft horse should have a large arm as well as a well muscled shoulder.

In like manner, the Doctor illustrated the propelling muscles of the rear portion of the draft horse, the proper development of which means a wide, long and well developed hip, the whole group of muscles in the hip and ham being essential in the propelling power of the draft horse. The other points mentioned in the development of the draft horse's frame were a well sprung rib, a close coupled body and, of course, that conformation which makes for beauty and symmetry is desirable when it may be had. Below the knees and hocks the draft horse's legs should be hard and firm, but without a meaty appearance, since the function of these parts is simply to support the horse and transmit the power from the muscles above. They should be flat and clean cut and feel like bone and hard rope to the touch. He cautioned importers with regard to the importance of securing horses with desirable legs in this respect, yet with plenty of bone. They should also be straight and well set under the horse. The feet should be of good size and of the proper cup shape, never flat.

The desirable characteristics of coach and carriage horses was also briefly touched upon in those essential points where they differ from those desirable in the draft horse. The Doctor closed his remarks with a very pertinent question, "Why do not the farmers of Michigan raise and keep to drive and work upon the farm, the best of these different classes?" Many questions were asked and answered by the Doctor, showing that not a little interest was taken in this feature of the program.

The Future of Beef Production in Michigan.

The closing number of the program was an address by Director R. S. Shaw, of the Experiment Station, upon the problems in beef production. Prof. Shaw stated that the subject as he saw it, practically means the question, "Is Michigan to continue in the beef business or go out of it entirely?" He mentioned the fact that of the various breeders' associations represented at the Live Stock Meeting, those representing dairy breeds of cattle, sheep and swine are much the most in evidence, which will illustrate the fact that the beef producing interest has declined rapidly during recent years. He stated that

many believe that ultimately the dairy industry would properly displace beef production in Michigan, but that he did not agree with this view. In an age when the conservation of our resources is universally advocated, as at present, he did not believe that we should lose a valuable industry of this kind, and does not believe we will have to go out of the beef producing business for several reasons. One of these reasons is that all Michigan farmers are not naturally properly constituted to conduct a dairy business, and it is indeed a misfortune for any man to engage in a business which he does not like and for which he is not, by nature or disposition, well suited. Second, there is and will continue to be, a large demand for beef of good quality, the demand for which is bound to increase with the breaking up of western ranges from which the supply of cheap cattle has come. Michigan has good conditions for the production of beef; better, in fact, than any sections of the corn belt. Michigan is well adapted to the production of corn and is an ideal location for the growing of clover and other legumes, which is not true with many sections of the corn belt. Prof. Shaw, however, believes that methods of breeding or feeding for the production of beef must be changed if Michigan is to continue this industry with profit. He believes that the farmer should study local conditions and select the animals best adapted to those conditions, whether they be of the special beef type or of the general purpose kind, but the essential in which a great change must be brot about is in methods of feeding. More feeders are needed and the only way to get them is to produce them on our farms. This would necessitate a change in methods of beef production from those practiced by the ordinary breeder of beef cattle. Prof. Shaw does not believe that the small farmer can afford to keep a cow a whole year without other revenue than that provided by the sale of her calf. He believes that to continue in profitable beef production the farmer must milk the cow and get a profit from that product as well. If the average production of Michigan cows be assumed to be but 200 lbs. of butter per year, it seems certain that the farmer cannot afford to feed that product to the calf, especially in view of some experiments recently conducted by him which seem to indicate that little if any better results can be obtained in beef production by that method. He referred to an experiment in which 60 calves were raised to a marketable age at a cost which afforded a reasonable profit. But notwithstanding the great possibility of the production in this class of baby beef, he believes the average skim-milk calf to be one of the worst abused of animals, since he is generally fed irregularly and given a poor quality of food, which is fed to him under unsanitary conditions. In the experiment above referred to, 30 calves raised on skim-milk with proper supplementary feeding, weighed about 1,000 lbs. at 18 months of age, while those raised on whole milk weighed only 30 to 40 lbs. more and were apparently of no better quality, since the buyer was unable to discriminate between them. This kind of calves have been sold at prices ranging around \$5.50 to \$5.75 and at these prices there is no question about making a profit in producing this kind of beef. Referring to the gains made by the two lots of calves, Prof. Shaw stated that at one time the calves raised on whole milk were about 200 lbs. heavier than those fed skim-milk but during the last five months of the feeding period the skim-milk calves made remarkable gains, averaging about two pounds per day while the other lot proved to be hard feeders.

Prof. Shaw closed his address by stating that he believes in the symmetrical development of our live stock industry, and that this kind of feeding can be adapted to a wide variety of conditions and feeds which will enable the producer of this class of beef to make money. In reply to questions with regard to the proper ration to feed the skim-milk calves, Prof. Shaw stated that they had found a most desirable ration to be composed of three parts of corn, three parts of oats, one part of bran, one part of oil meal and all the alfalfa hay the calves can eat. After a general discussion of the subject matter of Prof. Shaw's address, the final session was adjourned, thus closing one of the most successful meetings in the history of the organization, all the members returning to their homes with the determination of making greater efforts to promote the live stock industry of the state in general, and the breeds in which they are interested in particular, to the very best of their ability during the coming year.

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Why? Because they have the best igniter, the best cooling system, the best valve motion and the best governor. Thousands of engines now in successful operation after our years of experience in building only the best prove all these points. **Seven sizes, 1 1/2 to 16 H.P.** Send for Free Catalog and our fifty-seven reasons why **Stickney Engines are the best.** Agents everywhere.

Charles A. Stickney Company
MAIN OFFICE & FACTORY ST. PAUL, MINN.
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HARVEY BOLSTER SPRINGS

Soon save their cost. Make every wagon a spring wagon, therefore fruit, vegetables, eggs, etc., bring more money. Ask for special proposition. **Harvey Spring Co., 752 17th St., Racine, Wis.**



FREE TRIAL TO YOU

15000 Bu. EAR CORN
Ground very fine with one set of Rollers and Concaves used in the "BULL DOG"
Grinds all grain perfectly fine and is very light running, because all work is done only 1 1/2 inches from center of shafts. sizes 2 to 60 h. p. Get our Catalog.
CROWN POINT MFG. CO.
133 E. ROAD, CROWN POINT, IND.

A Wonderful Business Story

We have told in a book—which we ask you to send for—one of the greatest business stories ever told. A story of how John N. Willys stepped in two years to the topmost place in motordom. Of how **Overland** automobiles rose in 24 months to this year's sale of \$24,000,000. How a factory has grown like magic to a pay roll of 4,000 men—to a daily output of 30 carloads of automobiles. And how a large part of the demand of the country has been centered around one remarkable car.

The Discovery

Here is an outline of the story—just enough to make you want it all.

Two years ago, Mr. John N. Willys was a dealer in automobiles. There came to him one day a remarkable car—evidently the creation of a mechanical genius. The simplest, sturdiest, smoothest-running car that anyone around there had seen.

The name of the car was the Overland. And the price—then, \$1,250—was as amazing as the car itself.

The sale of this car spread like wildfire. Each car sold brought a call for twenty others like it. Old and new motor car owners came by the score to deposit advance money—attracted by the Overland's matchless simplicity.

But the cars did not come. And when Mr. Willys went to the makers he found them on the verge of receivership.

The genius which had created this marvelous car could not finance the making in the face of the 1907 panic.

The New Start

Mr. Willys in some way met the overdue pay roll—took over the plant—and contrived to fill his customers' orders.

Then the cry came for more cars from every place where an Overland had been sold. As the new cars went out the demand became overwhelming. The factory capacity was outgrown in short order. Then tents were erected.

Another factory was acquired, then another; but the demand soon outgrew all three.

During the next fiscal year these factories sent out 4,075 Overland cars. Yet the demand was not half supplied.

Dealers fairly fought for preference. Buyers paid premiums. None could be content with a lesser car when he once saw the Overland.

All this without advertising. About the only advertising the car ever had was what users told others.

The Pope-Toledo Plant

Mr. Willys' next step was to buy the Pope-Toledo factory—one of the greatest automobile plants in the country. This gave him four well-equipped factories—just 16 months from his start.

But the Toledo plant wasn't sufficient. So he gave his builders just 40 days to complete an addition larger than the original factory.

Then he equipped these buildings with the most modern machinery—with every conceivable help and convenience—so that cars could be built here for less than anywhere else.

Now 4,000 men work on Overland cars. The output is valued at \$140,000 per day. The contracts from dealers for this season's delivery call for 20,000 cars.

Now this man has acquired 23 acres around his Toledo plant. And his purpose is to see—from this time on—that those who want Overlands get them.

Marvelous Sales

Dealers had ordered 16,000 of the 1910 Overland models before the first car was delivered. That means that each Overland sold the previous year had sold four others like it.

And without any advertising.

This year's Overland sales will exceed \$24,000,000. Yet the Overland is but two years old.

The \$1,000 Overland

This year an Overland—better than last year's \$1,250 car—is being sold for \$1,000. That is because the tremendous production has cut the cost 20 per cent.

A 25 horsepower car, capable of 50 miles an hour, for \$1,000, complete with lamps and magneto. Never did a maker give nearly so much for the money.

There are higher-powered Overlands for \$1,250—\$1,400—\$1,500. They are just as cheap in comparison as the \$1,000 model.

The Overlands are unique in simplicity. They operate by pedal control. A ten-year-old child can master the car in a moment.

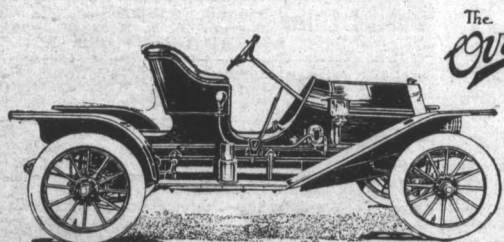
They are made in the same factory, and by the same man as made the Pope-Toledo—a \$4,250 car. The reason for the price lies in the production of 125 cars per day.

Get The Whole Story

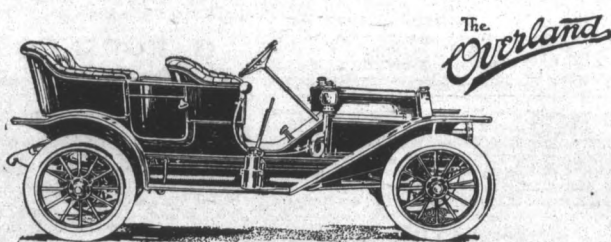
Send me this coupon to get the whole story, told in a fascinating book. Learn about the car which in two years captured so large a part of the whole trade of the country. See what has done this—what there is in the Overland to make it the most desired car in existence. Please cut out this coupon now.

F. A. BARKER, Sales Manager
The Willys-Overland Company
Toledo, Ohio

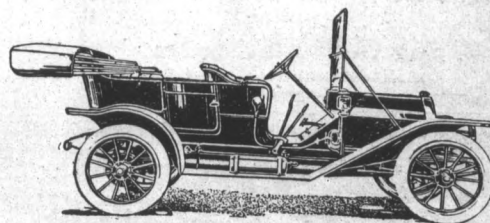
Please send me the book.



Overland Model 38—Price \$1,000. 25 H. P.—102-inch wheel base. Made also with single rumble seat, double rumble seat and Toy Tonneau at slightly additional cost.



Overland Model 41—Price, \$1,400
40 H. P.—112-in. Wheel Base—5 Passengers



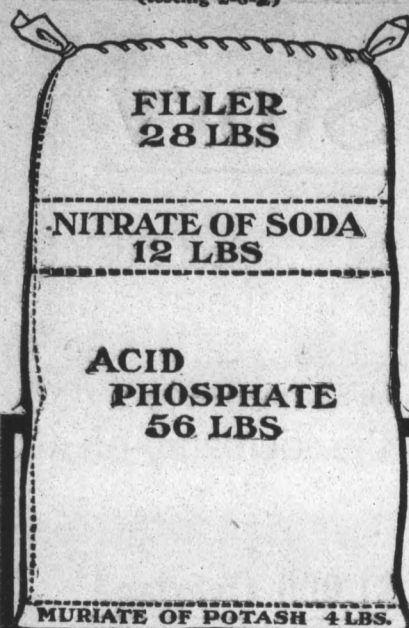
Overland Model 42—Price, \$1,500
Either Touring Car or Close-Coupled Body Top; glass front and gas tank are extras.

All Prices Include Magneto and Full Lamp Equipment.

Members of Association Licensed Automobile Manufacturers, Licensed Under Selden Patent.

100 lbs. of an ordinary Fertilizer

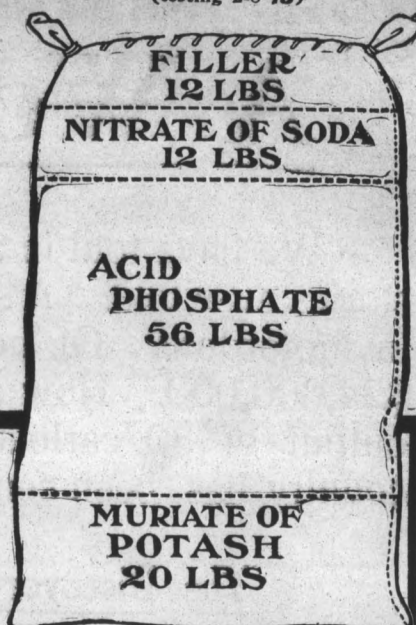
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Needs Sixteen Pounds of Muriate or Sulphate of POTASH to make it a

Well-balanced Fertilizer

(testing 2-8-10)



If you prefer ready-mixed fertilizers, insist on having enough Potash in them to raise the crop as well as to raise the price.

Crops contain more than three times as much Potash as phosphoric acid.

It was found years ago that the composition of the crop is not a sure guide to the most profitable fertilizer, but it does not take a very smart man to figure out that a **balanced fertilizer should contain at least as much Potash as phosphoric acid.**

Insist on having it so.

If you do not find the brand you want, make one by adding enough **Potash** to make it right.

To increase the Potash 5 per cent., add 10 pounds of Muriate or Sulphate of Potash to each 100 pounds of mixed fertilizer; to increase it 10 per cent., add 20 pounds.

Talk to your dealer and ask him to carry Potash in stock or order it for you. It will pay you both, for

POTASH PAYS

For particulars and prices write to

GERMAN KALI WORKS, Continental Building, Baltimore

**APPLETON QUALITY
Wood Saws**

SAW your own wood and save time, coal and money; or saw your neighbors' wood and

MAKE \$5 TO \$15 A DAY

Hundreds are doing it with an Appleton Wood Saw. Why not you? We make six styles—steel or wooden frames—and if desired will mount the saw frame on a substantial 4-wheel truck on which you can also mount your gasoline engine and thus have a

PORTABLE WOOD SAWING RIG that is unequalled in effective work and profitable operation.

We make the celebrated Hero Friction Feed Drag Saw also, and complete lines of feed grinders, corn shellers, corn huskers, fodder cutters, manure spreaders, horse powers, windmills, etc. Ask for our Free Catalogue.

Appleton Mfg. Co., 20 Fargo Street, Batavia, Ill., U.S.A.

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

FOR SALE—Registered PERCHERON STALLION, two years old, fast. F. L. KING, Charlotte, Mich.



JACKS AND MULES. Raise mules and get rich. 300 fine, large Jacks, Jennies and mules, 14 to 17 hands high, weigh from 700 to 1500 lbs. Good ones, I pay a part of shipping. Mules in teams or carload lots. Stock guaranteed. Write for prices today. **KREKLER'S JACK FARM**, West Elkton, Ohio.

KENTUCKY MAMMOTH JACKS. Registered Mammoth Jacks, Saddle Horses, Trotting and racing stallions. 260 head to select from. Catalogues are now ready. **J. F. COOK & Co., Lexington, Ky.**

HOLSTEIN BULL CATTLE WANTED. Best to be had in Michigan. **C. D. WOODBURY, Lansing, Michigan.**

BREEDERS' DIRECTORY.

CATTLE.

ABERDEEN-ANGUS.

Herd headed by **UNDULATA BLACKBIRD** ITD 83836, one of the best sons of **PRINCE ITD 50006**, and Grand Champion Bull at the Detroit and Grand Rapids Fairs of 1907, 1908 and 1909. Herd consists of **Ericas, Blackbirds, Prides, etc.** **WOODCOTE STOCK FARM, Ionia, Mich.**

AYRSHIRES—A Dairy Breed of much merit. Young stock for sale—also Berkshire Pigs, and ten varieties highbred Cockerels. Eggs in season. Mich. School for the Deaf, Flint.

Maple Ridge Farm Breeders and Importers of high class Guernseys. Write us your wants. **E. & J. T. MILLER, Birmingham, Mich.**

LONG BEACH FARM. 40 **HOLSTEINS** All Registered.

YOUNG BULLS, all A. R. O. stock, \$50 and \$60; **F. S. KENFIELD, Augusta, (Kalamazoo Co.) Mich.**

HOLSTEINS—Yearling bulls from A. R. O. stock \$75. Bull calves \$25 to \$50 each. **E. R. CORNELL, Howell, Mich.**

Holsteins—Bull calves for sale from A. R. O. dams, at \$25 to \$50 each. **E. COLLIER, R. F. D. 5, Fowlerville, 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.**

BOARDMAN STOCK FARM, Holstein Cattle. JACKSON, MICH.

Has more imported Holstein-Friesian Cows than any farm in the Middle West. Registered **BULL CALVES** of the most fashionable breeding. 30 fine, registered, Duroc Jersey sows due to farrow soon.

Holstein Service Bulls. Bull Calves. Yearling, two-year-old Heifers, bred, and cows, due to freshen in spring for sale. 50 head in herd. **L. E. CONNELL, Fayette, Ohio.**

HOLSTEIN FRIESIANS—Bull calves. Herd headed by **Canary Mercedes Royal King**. **W. B. Jones, Oak Grove, Mich.**

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

Northern Grown Jerseys. ROYCROFT FARM, Sidaaw, Mich.

Jersey Bulls, Cows and Heifers Island and St. Lambert breeding. Also some choice grade heifers.

DUROC JERSEY SOWS Choice individuals and popular blood lines. Inspection invited. Full information cheerfully furnished. If you cannot visit our farm at once write

BROOKWATER FARM, Ann Arbor, Mich. **A. W. MUMFORD, Manager.**

JERSEY BULL CALF born May 12, '09. Dam gave 10,950 lbs. milk, last year test 5%. Sire's Dam's record 10,080 lbs. in 10 1/2 months, test 5.2%. **THE MURRAY-WATERMAN CO., R. 6, Ann Arbor, Mich.**

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

Pure St. Lambert JERSEYS and some nearly pure either sex, for sale. **CLARENCE BRISTOL, Fenton, Mich. R.F.D. No. 5.**

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, Mich.**

BLACK MEADOW FARM JERSEYS **ROYAL OAK, MICH.**

Register of Merit Jerseys. Official yearly records. **T. F. MARSTON, Bay City, Michigan.**

DAIRY BRED SHORTHORNS—Only one bull left, 8 months old, price \$85, (good note good as cash.) **J. B. HUMMEL, Mason, Mich.**

SHEEP.

Hampshires—2 choice gilts, bred for March farrow. Choice June Clover Seed guaranteed pure. **A. L. ALLIS, R. No. 1, Adrian, Mich.**

Oxford-Down Sheep and Polled Durham cattle for sale. **A. D. & J. A. DEGARMO, Muir, Mich.**

OXFORD DOWNS A few good field rams for sale. **H. J. DE GARMO, R. No. 1, Clyde, Mich.**

OXFORD DOWN EWES bred to imported rams for sale at farmers prices. **B. F. MILLER, Flint, Michigan.**

Rockland Farm Delaines—A few choice rams for the 1909 trade. Prices right. **D. E. TURNER & SONS, Mosherville, Mich.**

130 Reg. Rambouillet Ewes for sale, descended from the best flocks and bred to a pure Van Homeyer and a ram sired by a Gilbert ram and imported dam. All in perfect health. In lots to suit buyers—none reserved. **J. Q. A. Cook, Morrice, Mich.**

For Sale—17 grade breeding ewes \$5 each, a few reg. Shrop ewes \$15 each. All good young ewes. **M. A. BRAY, Okemos, Mich.**

SHROPSHIRE CHOICE RAMS AND EWES. \$10 to \$15 each. **C. J. THOMPSON, Rockford, Mich.**

SHROPSHIRE HALL STOCK FARM. Will make special prices for thirty days, on ewes from 1 to 3 years old, all bred to imported Cooper, and Mansell rams to lamb in March and April, also on very choice ewe lambs, this is to make room for an importation that is going to arrive this spring. **L. S. DUNHAM & SONS, Concord, Michigan.**

HOGS.

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

LARGE ENGLISH BERKSHIRES. Have a fine lot of spring pigs, both sexes. The type for profitable pork production. Vigorous and strong and of best blood lines. Satisfaction guaranteed.

F. A. BYWATER, Memphis, Mich.

BERKSHIRES of the most fashion a ble type and strains. **C. S. BARTLETT, Pontiac, Mich.**

Boars—Berkshire—Boars Two, weighing 400 lbs. each, one 350, good ones, too, and Cheap. Other smaller ones. They must go at once. **Guernsey bull calves, Pekin Ducks, and Barred Rock cockerels.** **HUPP FARM, Birmingham, Michigan. G. C. HUPP, Manager.**

NORTHERN GROWN BERKSHIRES. ROYCROFT FARM, Sidaaw, Mich.

Two Boars, do for fall service. A few Gilts left. Also a fine lot of fall pigs ready for weaning. Either sex or pairs notkin. **A. A. PATULLO, Deckerville, Michigan.**

DAMS BROS. Improved Chester Whites, Litchfield, Mich., won 125 premiums in '09. Booking orders for bred sows; boars ready for service. **Buff Rock, W. Orpington, W. Leghorn cock's.** **Shorthorn bulls ready for service.**

IMPROVED CHESTERS. Choice young Boars ready for service. Sows bred or open. Also choice Holstein Bull Calves, of the best of breeding. **W. O. Wilson, Okemos, Mich. Both phones.**

Puritan Herd of Chester Whites—The peer of any in America. Mature sows and spring gilts, bred for March and April farrowing. **WILL W. FISHER, Watervliet, Mich.**

DUROC JERSEY SWINE. Shepherd Dogs. B. for 15. **J. H. BANGHART, Lansing, Mich.**

DUROC-JERSEYS—50 bred and open sows, plenty of growth and quality. Boars ready for service. Prices right. Write **J. C. Barney, Coldwater, Mich.**

O. I. C. SWINE—Grandson of Jackson Chief, the World's Champion and Grand Champion O. I. C. Boar, heads my herd, he is also a grandson of Tutesy, the World's Champion sow. I am sold out of spring and June farrow of both sexes. **A. J. GORDEN, R. F. D. No. 2, Dorr, Mich.**

O. I. C. swine of spring farrow, both sexes. Some Aug. and Oct. pigs. All of right type and breeding. **Geo. P. Andrews, Dansville, Ingham Co., Mich.**

Poland-China Brood Sows, safe in pig. Also fall pigs and B. P. Rock cockerels. Prices right. **ROBERT NEVE, Pierson, Mich.**

POLAND-CHINAS—Spring and yearling sows bred for spring farrow. They are right and priced right. **WM. WAFFLE, Coldwater, Mich.**

POLAND-CHINA PIGS—Butler's Famous Wonders—Sept. farrow. Big, western type, big bone, long bodies, big litters. The farmers' hog. Pairs & trios. They'll make you smile. **J. C. Butler, Portland, Mich.**

POLAND-CHINAS—Perfection strain. Choice young boars ready for use. Also sows. **E. D. Bishop, R. 38, Lake Odessa, Mich.**

P. C. SOWS Bred for spring farrow **WOOD & SONS, Saline, Mich.**

P. C. SOWS, bred—These sows are of great quality and breeding. A few choice S. C. B. Minorca cockerels. **R. W. MILLS, Saline, Mich.**

LARGE IMPROVED YORKSHIRES—September farrowed pigs, either sex, each. Satisfaction guaranteed. If you want the most economical feeders possible, breed your sows to a Yorkshire boar. Yorkshires are sure to be the most popular breed of the future. **COLON C. LILLIE, Coopersville, Mich.**

**When All Others Fail Try
Dr. Fair's
Cough & Heave
Remedy**

SIX DAYS' TREATMENT FREE to new customers, if you send 4c to pay postage. If your druggist can't supply you **Send \$1 for 30 Days' Treatment**

W. C. FAIR, V. S., Prop.
DR. FAIR VETERINARY REMEDY CO.
5712-5714 Carnegie Avenue, Cleveland, Ohio.

Death to Heaves Guaranteed
Or Money Refunded.

NEWTON'S Heave, Cough and Distemper Cure. \$1.00 per can at dealers, or express paid. 15 years' sale. Send for booklet, Horse Troubles.

THE NEWTON REMEDY CO., Toledo, Ohio.

HORSES Going Blind. **BARRY CO., Iowa City, Iowa.** Can Cure.

PERCHERON STALLIONS. One 4 and one 2 years, record-ed. Shorthorn cattle, both sexes, reasonable prices. **T. M. Southworth & Son, R. 13, Allen, Mich.**

VETERINARY

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

Advice thru this department is free to our subscribers. Each communication should state history and symptoms of the case in full; also name and address of writer. Initials only will be published. Many queries are answered that apply to the same 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.

Garget.—I bot a cow six weeks ago. Three days after I had her, one hind quarter became inflamed; this inflammation soon subsided, but has returned at different times since. L. E. M., Siloam, Mich.—Give cow 1 oz. fluid extract of phytolacca root at a dose two or three times a day and apply hot camphorated oil to udder twice a day.

Surfeit—Mange.—I have a three-year-old filly that has mange and I would like to have her cured. The skin eruption is in the form of small, hard little pimples with dry scab. C. S., Kalkaska, Mich.—Dissolve 4 ozs. carbonate potash in a gallon of water and apply to itchy skin once a day and give 2 drs. Fowler's solution in feed three times a day.

Rheumatism from Exposure.—My two-year-old colt took cold from exposure and became quite stiff. He has gradually lost flesh, is quite thin; when he lies down is unable to get up without assistance. J. L. S., Elm Hall, Mich.—Give your colt 1 dr. carbonate potash, 2 drs. ground gentian, 2 drs. ground ginger and 2 table-spoonfuls of powdered charcoal at a dose in feed three times a day. Keep him warm and groom him twice a day.

Sore Throat.—What drugs shall I use in making an inexpensive liniment for sore throat? Also, to use in cases of pink-eye when the throat is affected. R. J. H., Mt. Pleasant, Mich.—A useful and not expensive liniment is made by mixing equal parts turpentine, aqua ammonia, and either sweet oil or raw linseed oil together. This is a good family and stable liniment. If glands of throat are swollen apply iodine ointment daily.

Indigestion—Colicky Pains.—My mare has sick spells every few weeks; she will appear all right in the evening and next morning be in pain. Her bowels are constive, urine scant and highly colored; she bloats a little. I have given her condition powders and fed carrots to open the bowels. H. R., Ortonville, Mich.—Give a table-spoonful ground ginger, a dessert-spoonful of baking soda and a teaspoonful of powdered buchu leaves at a dose in feed three times a day. She should have daily exercise.

Chills and Fever.—I have a cow that is having chills and fever; she seemed to be in good condition when she calved some 10 or 15 days ago. The milk from two teats seems to be stringy. P. K., Muskegon, Mich.—Dry and fatten her for she will prove unprofitable for dairy purposes.

Garget—Tuberculosis.—I have a cow that was fresh last March for the first time and will be fresh again next May; she gives stringy milk. The udder has several small bunches in it, interfering with the free flow of milk. M. L., Fremont, Mich.—Apply iodine ointment to udder directly over the bunches every day or two, and keep in mind that she may perhaps have tuberculosis.

Slavering.—I have a black mare that slavers and has been doing so for the past two months. W. H. A., Sunfield, Mich.—Slavering is usually the result of giving an animal strong irritating drugs, or on account of the sharp points on outside of upper grinder teeth or on inside of lower, irritating the tongue or cheeks, causing the animal to drool. Float his teeth, if they need it. Dissolve 3 ozs. of alum in a gallon of water, sponge out the mouth twice a day. If the horse slobbers only when bit is in the mouth make him wear it in the stable when idle until he gets used to it.

Indigestion—Septic Poison.—My seven-year-old cow gave birth to a calf Dec 13; cleaned well, is in fairly good health, but does not give more than a quart of milk, while a year ago she gave fourteen quarts at a milking twice a day. A. B., Highland, Mich.—Your cow may not have cleaned properly and suffered from septic fever. However, it is most likely the result of indigestion or impaction. Give her 1 lb. epsom salts daily until her bowels move fairly free, also give 1 oz. ground ginger, ½ oz. ground gentian and 1 oz. bicarbonate soda at a dose in feed three times a day. Perhaps a change of food would help her.

Wounded Coronet.—My seven-year-old horse cut his coronet some time ago and he is not over his lameness yet. When it was done I put on hot tar; he is yet very lame. J. C. H., Vicksburg, Mich.—Perhaps some of the hair or dirt got into the wound which is acting as a foreign body, causing irritation and suppuration, which, if so, should be removed. Apply one part carbolic acid and 20 parts water, ten minutes after applying peroxide-hydrogen. Cover wound with oakum and a light bandage.

Milk Fever—Blocked Teat.—My best cow had milk fever last May. Our Vet. saved her, but informed me that I had better dispose of her before she came fresh again. What do you advise? I have another cow that has a blocked teat, which I did my best to keep open by using a tube. What can be done for her? G. A. W., Leslie, Mich.—The deep milking cows are usually the victims of milk fever; therefore, I would be inclined to keep her on account of her milking qualities. Furthermore, there is a remedy for milk fever which, if applied early enough, saves almost every case. Equip yourself with a milk fever outfit which can be had of The Lawrence Publishing Co. Full directions furnished. The teat will perhaps always be blind. However, your Vet. might open it. You might try applications of iodine ointment.



SAL-VET



Stops Losses From Worms

Keep your stock in prime condition. Do away with losses and increase your profits. The worst enemy of stock is **Worms**. They eat the food that should strengthen and fatten stock—they eat up your profits. **SAL-VET** is a scientifically medicated salt that is easy to feed and costs little; only one-twelfth of a cent a day for each sheep or hog and one-third of a cent for other stock.

This powerful remedy not only destroys worms in your stock, but it acts as a tonic and conditioner. It goes direct to the worms—kills them—expels them, fitting the animals' stomachs and intestines to perform their proper functions, so that what the animal eats will make profit for you. **Sal-Vet** will positively prevent parasitic infection.

At marketing time every pound that you can add to your cattle, sheep or hogs is just so much more money in your pocket. You know that it is almost impossible to fatten stock if their digestive organs are out of kilter, or if they have worms.

Your stock is now on dry feed—**Sal-Vet** will stimulate their appetite—aid digestion and keep them healthy, vigorous and worm free.

A. J. Lovejoy & Son Endorses **Sal-Vet**.

"We are certainly pleased with the results from feeding your **SAL-VET** to our sheep and hogs, and can heartily recommend same to all sheep breeders and feeders, as well as swine breeders." (Signed) A. J. Lovejoy & Son, ROSCOE, ILL.

THE S. R. FEIL COMPANY
Dept. M. F. CLEVELAND, O.

Weight in stock is not due to the amount of feed they eat, but to the amount they digest and assimilate.

PRICES:—40 lbs. \$2.25; 100 lbs. \$5; 200 lbs. \$9; 300 lbs. \$13.

Don't Send Any Money

We will send you enough **SAL-VET** to use for 60 days. Don't pay us if it fails to do what we claim.

Just fill in the attached coupon and tell us how many head you own and we will send enough **Sal-Vet** to feed them for 60 days as above. Fill in and mail the coupon now.

CUT OUT—MAIL TODAY
Send me enough **Sal-Vet** to feed my stock 60 days. If it does what you claim I will remit. If not you are to cancel the charge. Jan. 22, M. F.

Name.....
P. O.
State.....
Shipping Sta.
No. of Sheep.....
Cattle.....
Hogs.....
Barns.....



Detroit-American—30 Days' Trial—Cash or Credit

Made in five sizes—of guaranteed capacity. Stronger and lighter running than any other spreader—more steel used; all-steel cylinder—all-steel rake and end gate; twice as effective as any others and indestructible; the only direct chain drive—no gears to create draft and break; simplest feed; six changes. In fact, every feature from 40 to 100 per cent better than any other machine at any price.

Prove it. Our trial offer is free—no money down; no deposit. Just order.

Our Wagon-Box Spreader \$42.50 Freight Paid

Delivered in Michigan and only a trifle more in other States. The limit of big value in a box spreader. Guarantee, trial, credit, all go on this, too.

PRICE **\$83.50** Freight
Cut to **\$83.50** Prepaid

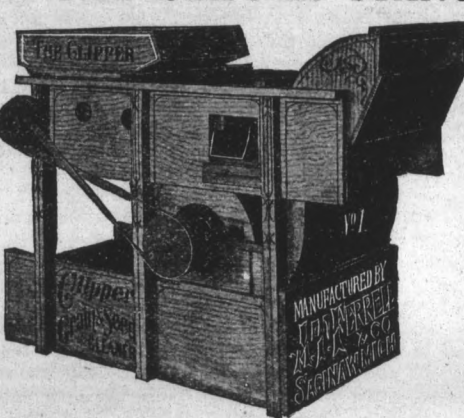
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POULTRY AND BEES

THE BREEDING PEN AND ITS CARE.

Incubator and brooder catalogs are popular reading just now with those who are planning to grow a good crop of early chickens, and it is always well to get orders in early. However, it should be remembered that when the incubator arrives a goodly supply of fertile eggs must be at hand if operations are to begin promptly, and it is none too early to give some extra attention to the hens which must furnish these eggs.

Of course, every poultry owner desires to use his best hens for breeders, but it is not always possible to single these out. In fact there is no infallible way of determining which hens are laying the most eggs except thru the use of the trap nest, or perhaps thru noting certain peculiarities in the eggs which enable one to identify them with certain hens. Either method is a slow and expensive one at best. Occasionally we hear of so-called experts who claim to be able to pick out the good layers by a simple examination of the fowls, but their attempts to exercise this power on trap-nested flocks have never failed to disclose some very glaring errors. About the only point on which those who have been closely connected with the development of heavy laying strains agree is that the heavy layer is invariably a hen possessing a strong constitution, and this point may well be given first consideration in the selection of the breeders. Early maturity is another very desirable point, and after all the vigorous, well matured hens have been gotten together, further culling, if allowable, should be done from the standpoint of breed characteristics, since it is not wise to sacrifice these to utility if avoidable.

With the hens selected, the question of male birds comes next. On the average farm or small poultry plant it is rarely possible to use home-bred males without inviting danger of deterioration from inbreeding. It therefore becomes necessary to exchange male birds with a neighbor who happens to have the same breed, or to secure them from a breeder who makes a business of supplying pure-bred breeding stock. In purchasing a male bird, as in securing a male animal of any kind for use on the farm, it is desirable to know something of the stock from which the fowl is descended if possible. Where it is not practical to visit the breeder and inspect his flock, a fair degree of safety is insured by patronizing only breeders of known reputation and whose business connections are such as inspire confidence. If male birds are not already at hand this matter should not longer be neglected, since the demand for good stock is always strong when the industry is prosperous as at present.

With the breeders separated from the remainder of the flock it but remains to keep them as thrifty and vigorous as possible. After the hen enters the breeding pen vigor and strength count for more than the number of eggs she produces. If she has been laying heavily thru the early part of the winter she should have a little chance to recuperate before she is mated and begins the production of fertile eggs. Under no circumstances should egg production be stimulated. The feeders should simply be kept as nearly under natural conditions as the season will permit. Every possible opportunity for exercise must be given, likewise the greatest variety of food obtainable, not neglecting to provide green stuff in liberal proportions. About ten days or two weeks before fertile eggs are wanted turn the males into the pen, having at least one good vigorous male for every ten hens.

WAS IT A QUESTION OF BREED?

Some weeks ago D. J. Ryther, writing of "Some layers rations, and results therefrom," gave two rations and their results. One ration was fed to 70 R. I. Reds from which he secured 36.2 eggs each in 90 days. The other was fed to 220 Reds and Rocks from which he secured an average of 22.9 eggs in 90 days. One yielded 40½ cents profit per hen, the other 27 2-5 cents profit per hen. Mr. Ryther considers this difference due to the breed of fowls.

Now, there are a few questions I would like to ask. The 70 Reds were fed 5.3-oz. each per day. The 220 Reds and Rocks were fed 4.1-oz. each per day. The Rocks are a little heavier fowls than the Reds, yet each received about 1.2 oz. less feed per day. Was not the difference in results due to difference in ration rather than to breed? Again, may not the difference in results have been due in part to climatic difference between seasons? Was each flock in like condition

in flesh and maturity? Had they had similar care previous to December? Did the 220 hens have the same proportional space or were they more crowded?

Ingham Co. E. R. MEECH.
As to the fact that the 70 R. I. Red pullets consumed 5.3 oz. of feed each during 90 days, while the Reds and Rocks consumed only 4.1 oz. each during a like period, I will say that hens of any breed, when laying heavily, will consume very much more feed than if laying but moderately. If I have figured correctly the 70 pullets averaged over 40 per cent production for the 90 days, which is an average most of us do not often get for December, January and February. They were in the pink of condition, laid heavily and ate correspondingly. I believe the extra eggs produced accounts for the extra food consumed.

Mr. Meech says: "Was not the difference in results due to the difference in ration?" By referring to my article it will be seen there is little difference in the grains fed. I always aim to feed all they will work for during the day, and then sometimes, in the shortest days, give them whole corn to fill them up, because they can see to eat that after the pens are too dark to pick up small grains. I feel that the flock of 220, which had practically the same floor space per hen, were full fed, but for some reason they failed to lay as well.

In answer to the question, "Had they similar care previous to December," I would say that they were all fed together from small chicks to maturity, and the Rocks not only did not respond in the three months given, but they were not in the same class at any time during the year. We all know there are splendid laying strains of Barred Rocks, when properly handled, and what mine did showed, more than anything else, the advantage of breeding for egg production early and late in the season and all the time. That is where the Reds of my own breeding excelled the Rocks.

Because of the fact that Barred Rocks are rather difficult to handle by the average man, and because of a little too large size to become sufficiently matured for early fall layers, as hatched on most farms, they have passed their greatest popularity in this region. A few years ago one would hardly see a flock of farm fowls that did not contain Barred Rocks. Today Reds have taken their place to a considerable extent. Why, do you ask? Because they possess the same advantages as the Rocks in yellow skin and legs, lay brown eggs of equal or superior size and color, and, being a pound or two smaller, they may be brot to laying in the fall where hatched in April or May. They do not have the disadvantage of liability to overfatness and "bagging down," so characteristic of Barred Rock hens.

Maine. D. J. RYTHUR.

ENCOURAGING THE GROWTH OF NECTAR-PRODUCING CROPS.

A short time ago it was my pleasure to visit the plant of the largest producers and manufacturers of bee-keeper's supplies in the world. They use over eighty tons of beeswax a year for comb foundation. Another small article is the section boxes. They make sixty million of these every year. Along with their great manufacturing operations, they make a business of keeping bees. They have four large apiaries. In one of these are some 400 colonies. I have given these few figures to make the fact clear that these men know their business.

This company finds it extremely profitable to grow crops which make good feeding for the bees. For many years they have worked toward that end. They even go so far as to furnish seed to farmers living in the neighborhood in order to insure the growing of certain crops. To farmers living within one mile of these apiaries they furnish all the clover seed that they will plant, while to others living outside of the mile limit and within a radius of two miles, the seed is furnished at half price. It used to be their custom to furnish buckwheat, but since the farmers do not care to grow that crop any more, they have to rely on the clover.

Do not mistake me by thinking that I believe it should pay everyone to raise crops that will be beneficial to bees. If you have enough hives, it will pay you, however. This company does extensive experimenting along bee lines and for that reason knows when a thing is really profitable. However, I do mean that it will pay to have certain crops about which will provide food for the bees. In order to do so one need not put one's self out too much, yet to do so means additional profits on your bees.

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THE MICHIGAN FARMER, Detroit, Michigan.

THE DAIRY

CONDUCTED BY COLON C. LILLIE.

BEET TOP ENSILAGE.

Several times in the last year or two I have given it as my opinion thru The Farmer that it would not pay a man to build a silo for beet tops, but did not know anything about it from actual experience. It is unsatisfactory to give advice from what one thinks rather than from what one knows. In fact, it has always been my policy to say nothing about a subject where I have not had actual experience. Some of the leading agricultural questions in Michigan have forced me into lines of farming more for experimental purposes than anything else, so that I might be able to answer these questions satisfactorily.

I have realized for some time that feeding beet tops out of the field in the fall of the year and early winter was a very unsatisfactory way to handle them. If the season was favorable it worked very nicely but if the season was unfavorable, it was a disagreeable job. If the ground is dry, doesn't freeze too hard, and there is little or no snow, it is no great job to go to the field and get the beet tops to feed daily, but if it is a wet fall, or the tops freeze solid, or a heavy fall of snow covers the feed, then it is a very unsatisfactory way for you have to go whether it rains or shines. It puts feeding on the same basis as when growing soiling crops, and long ago I made up my mind that I could not attempt to soil cattle, under my conditions. I should have built more silage capacity sooner so as to provide for the entire summer with corn silage. By increasing the capacity of the silo we will now have ensilage the year round.

Putting these things together and studying over the question, I made up my mind that it was my duty to experiment a little with beet tops, and so this fall I built a silo on purpose for beet tops. The silo is built close to one of the driveways that go into the barn. We can drive up onto the bridge and pitch the beet tops into the silo and in this way fill a silo 16 to 18 feet high without any carrier or any power to elevate the tops. I made a mistake in getting the silo too small. I laid out the foundation with a seven and a half foot radius, making a silo fifteen feet in diameter, but after thinking the matter over it seemed to me that I never would have beet tops enough to fill a silo 15 feet in diameter and 18 feet high, so I cut the radius down to six feet, making a 12-foot silo which was too small to hold all the beet tops. We put them in during the first cold snap this fall. There was some ice and snow frozen onto them. The weather was a little cold and they were slow in heating up and didn't settle fast, and we had the silo full to the very top with only a little over half of the beet tops off ten acres of ground. In about a week they got to heating and settled down four or five feet and then we filled it up again. I think here we made a mistake because they had commenced to decay on top, and by piling more on we lost an unusually large amount from spoiling. This, I think, could have been avoided if we had not filled twice.

Some one told me at some time or other, or I read it, that in Germany they mix oat straw with the beet tops when they are putting them up for winter feed and so we began by putting oat straw in the bottom of the silo, then beet tops and more straw, and so on. As soon as we discovered that we were not going to have room enough for the beet tops, we didn't put in so much straw and finally discontinued its use entirely.

I had not been at the farm regularly and had heard many stories about the beet top ensilage. Neighbors investigated and said that it was all rotting. Some of the men contended that it would not be worth feeding at all. During holiday week we uncapped the silo. There was more spoiled beet tops on the top than there should have been. I attributed it to the fact that we filled twice and got the tops rotting before we put on the last supply, and we had to haul out three pretty good sized loads and spread as manure. Then we got down to beet tops that the cows would eat.

When we got down to where I thought they would possibly do I took some into the barn and put them in the cows' mangers. They were... that time eating corn silage and every one of them left the corn silage and went to eating beet tops. There is no question but what beet tops are relished by the cows. We are now feeding

one feed a day of beet top silage and one feed a day of corn silage. Of course, we have not fed it long enough to know what effect it will have on the cows but I have had experience enough in feeding green beet tops to know that if you feed them carefully, not too much at a time, there is no apparent injury from feeding them. From this one year's experience so far, I would say that it would pay to build a silo for beet tops, but it is hardly safe to draw conclusions on one experiment.

I believe, however, that next year this business will work out satisfactorily. My idea now is to heighten this silo, put on about 12 or 16 feet on top of the 18 foot silo, and then have a conveyor to hoist the beet tops into the silo. I can run it with the gasoline engine. We will put in oat straw quite liberally, and mix it in with the beet tops. We will have room enough to store ten acres of beet tops. I purpose to send to the beet sugar factory and get a car load of green pulp to be delivered about the time we are filling the silo, and when we are thru run this beet pulp on top of the beet tops. This will press them down and prevent much decay. The beet pulp itself will not decay even on top to any considerable amount, and while after paying the freight and drawing wet pulp, there may not be very much money in it, yet to be used for this purpose it will save a large amount of beet tops and I think that one car load in this way will pay me well, and I believe this will solve the problem.

DRY VS. WET GRAIN FOR COWS.

Please advise us which is the best method to feed ground feed to milch cows, wet or dry. I cut my fodder and my cows eat nearly all of it. I would like to know whether this way of feeding is best or not; some say it wears out the digestive organs on fodder butts that are of no value. Others say it is a very good way because we all know the fodder goes from one-third to one-half farther and the manure is far better. How many quarts of average test milk does it require to make one pound of butter?

Tuscola Co. G. W. TUCK.
I think it makes but little difference whether feed is fed wet or dry. It is more convenient to feed the grain ration dry than wet. It is much easier to keep the mangers clean when the feed is dry than when fed wet. If the cow has plenty of water I think you will get better mastication and better digestion if the feed is fed dry, because if the feed is wet it is liable to be swallowed without being properly masticated. When it is fed dry it is difficult for the animal to swallow it until it is well mixed with saliva.

For many reasons it is better to cut the cornstalks and feed them as you mention, than to feed them whole. It is a very unpleasant job to feed whole cornstalks in stable mangers. If they are cut up fine it is possible to get the cows to eat some of the butts that they would not eat if they were fed whole, but whether you would get very much nourishment from the butts of these cornstalks is another question. The starch and sugar in dry-cured cornstalks gradually turns to woody fibre, and by this time of the year I think there is very little digestible matter remaining in the butts, but I would much prefer to cut them for feed. What they do not eat then are in good condition for bedding. Cut cornstalks or shredded cornstalks make good bedding, even better, I think, than straw because the pith of the cornstalk will absorb a large amount of liquid manure. Some people cut their cornstalks and moisten them and put the grain on the moistened cornstalks, shovel them up together and then feed to the cows. In this way they get them to consume almost all of the cornstalks. But the question is, whether it pays to do this or not. It compels the cows to eat a large amount of indigestible matter in order to get the grain, and of course they will do it, but it is not good economy to compel a cow to eat too much crude fibre, too much indigestible matter. A ration certainly ought to have a certain amount of bulk in order to secure proper digestion, but too much bulk is also faulty. When cornstalks are fed whole, I think the cow will eat all that probably she ought to eat, and whether it is wise to compel her to eat more of them when they are cut or not, I do not know.

Now, with corn silage the case is different, because the butt of the corn plant, when cut up and put into the silo, contains a large per cent of digestible matter that changes to woody fiber when it stands in the open, and when they eat the butt of the cornstalk in the shape of corn silage, they are getting some food that is digestible. There is a certain per cent of this that is crude fibre and indigestible, but nowhere near the amount

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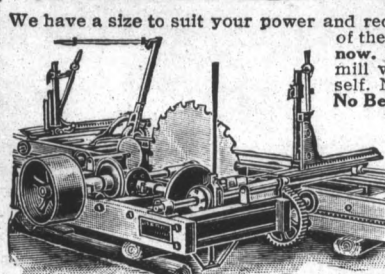
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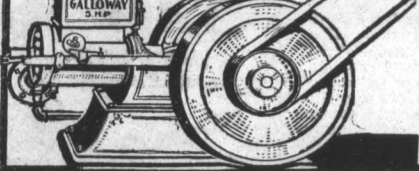
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there is in the cornstalks that have been dry-cured. As I say, it will pay to cut the cornstalks just for the beneficial effect of bedding and in the handling of the manure.

On the average, milk will test about 4 per cent butter-fat. Now, a quart of milk will weigh about two pounds, consequently you would have .08 of a pound of butter-fat in one quart, and it would take as many quarts to make a pound of butter as .08 is contained in one pound, or 12½. Therefore, on the average, it would take about 12½ quarts of average milk to make a pound of butter. Of course, this is only an estimate, because we are estimating the richness of the milk and everything. One buttermaker would get more out of it than another on account of overrun and all those different factors, so the above quotient is really little better than a guess.

BEST GRAIN RATION TO FEED.

I should like to know what grain ration would be the cheapest and most profitable to feed my cow, which receives corn fodder and good mixed hay for roughage. My cows are nearly dry now, but begin to freshen the first of February.

Muskegon Co. M. L. C.

With corn fodder and mixed hay for roughage, I should feed the following grain ration: Corn meal, wheat bran, and oil meal mixed together in equal parts by weight; that is, 100 lbs. of corn meal, 100 lbs. of wheat bran and 100 lbs. of oil meal, and feed the cows twice each day what you think would be the most profitable amount judging from the way each individual cow responds to the feed. If you feed your own cows, you can after a very few days get an idea of how much each cow will pay for. It will pay to feed each cow up to her profitable limit. If you want a general rule for feeding, I would say that if you would feed a pound of this feed per day for every pound of butter-fat which a cow produced in a week, it would be about as good a rule as you could be guided by; yet it would not do to be guided by this absolutely in every instance. I would feed the cows a light grain ration before they come in, of the above mixture, in connection with the corn fodder and the mixed hay, then after they freshen you could gradually increase until you get up to the desired amount.

AMOUNT OF COTTONSEED MEAL TO FEED WITH CORN SILAGE AND CLOVER HAY.

Will you please tell me in the Michigan Farmer how much cottonseed meal to feed with silage, per head? I also have plenty of clover hay and corn fodder. Please give me a balanced ration.

Monroe Co. A. C. G.

With corn silage, corn fodder and clover hay for roughage, for ordinary milch cows, it will take about four pounds of cottonseed meal per day to make a fairly well balanced ration. That is, if you will feed two pounds of cottonseed meal in the morning on the corn silage and two pounds at night, to cows giving a full flow of milk, there is sufficient protein in the cottonseed meal to balance up the carbohydrates of the rest of your ration, making it an economical and well balanced ration. The question is as to the advisability of feeding four pounds of cottonseed meal per cow a day. I really do not think you ought to. Some people feed even more than this to cows. In the south, for instance, it is not uncommon to feed five and six pounds of cottonseed meal a day to cows in full flow of milk; but I am afraid to feed so much. Would prefer to feed only two pounds of cottonseed meal a day and then substitute two pounds of oil meal in place of the other two pounds of cottonseed meal, feeding two pounds of cottonseed meal mornings and two pounds of oil meal at night, or you can mix your cottonseed meal with wheat bran and gluten feed in equal parts by weight; and then feed a little more of the grain. This would make fully as good a ration as the other.

PEA BRAN VS. WHEAT BRAN.

Will you kindly answer thru the columns of the Michigan Farmer the difference in feeding pea bran or wheat bran for milch cows, to be fed with corn and oats ground with clover hay and cornstalks for fodder?

Lapeer Co. C. M.

I do not know so very much about pea bran. Pea meal is an excellent food for cows, much richer in protein than wheat bran. Pea meal contains over 20 per cent digestible protein while wheat bran contains only about 12 per cent digestible protein. But pea bran has a different composition than pea meal. Pea bran contains a large per cent of crude fibre,

which means that a large part is indigestible. I am not informed on the coefficient of digestibility in pea bran. It is rather an uncertain quantity. My personal opinion is that pea bran, which is the residue from the pea mill, and not the ground peas, would have a less feeding value than wheat bran. Personally I would prefer to buy oil meal and mix with ground corn in corn and oats in preference to either pea bran or wheat bran, I think better results would be secured from such a mixture.

WILL IT PAY TO BUY TURNIPS?

Will you please inform me whether it will pay to buy turnips at \$5.00 a ton to feed to cows? I am selling milk to condensed milk factory at \$1.60 per cwt. Bran is quoted at \$25 a ton and corn at \$30 a ton.

Isabella Co. W. F.

So far as the food value of the turnips is concerned, I do not believe they are worth five dollars a ton. You could get better results accordingly with bran at \$25 a ton or corn at \$30, but in the absence of any succulent food whatever, I think it would pay to feed a small amount of turnips even at five dollars a ton. Not particularly for their food value, but for their succulency, to be used as an appetizer. The succulency of turnips, beets or anything of that sort, has a good effect upon the general digestion of the animal and enables her to better digest and assimilate the balance of the ration. In this way I believe it would pay you to purchase a certain amount of them, but I would only feed a small ration a day and would consider that I was paying for succulency rather than food value.

ANNUAL MEETING OF THE MICHIGAN DAIRYMEN'S ASSOCIATION.

As announced in the last issue, the 26th annual meeting of the Michigan Dairymen's Association will be held in the Wayne Pavilion, Detroit, February 1, 2, 3 and 4. The opening session on Tuesday, February 1, will be devoted to the city milk producers, the evening session of the same day to city milk consumers. By thus bringing the producers and consumers of milk together for a mutual consideration of the problems involved, a better understanding should be promoted. A feature of the program will be an address on "The Consumer's Part in Solving the Milk Problem," by Ivan C. Weld, of the Dairy Division of the Department of Agriculture. On Wednesday morning comes the dairy farmers' session, while Wednesday afternoon and Thursday afternoon will be given over to the butter-makers and the two sessions on Friday will be devoted to the interest of cheese makers. Thursday morning is given over to the machinery men and there will be only one evening session, which will be held on Tuesday. The machinery exhibit will be closely adjacent to the hall in which the sessions will be held, and arrangements have been made for a larger exhibit of dairy supplies than at any previous show. A large city attendance is expected, especially at the consumers session and a large attendance of dairy farmers from all parts of the state is desired. Too many dairy farmers have gotten the idea that this Association is primarily in the interests of the buttermakers and cheese makers of the state. Nothing could be farther from the truth and as many dairy farmers as possible should plan on attending the milk producers' session and the dairy farmers' session at least, and those who can plan to stay thruout the program will find that the sessions devoted to the interests of the butter makers and cheese makers will contain many features of interest to them, since the problem of handling dairy products depends not a little upon the proper handling of the milk and cream before it reaches the factory.

FREE BOOK ABOUT CANCER.

The Leach Sanatorium, of Indianapolis, Ind., has published a book on cancer, which gives interesting facts about the cause of cancer; tells what to do in case of pain, bleeding, odor, etc., instructs in the care of the patient, and is in fact a valuable guide in the management of any case. The book is sent free to those interested who write for it, mentioning this paper.

The Johnston Harvester Co., of Batavia, N. Y., has recently published a new art catalogue illustrating and describing their full line of harvesting machinery and agricultural implements, showing the many new and advantageous features of the various machines and implements which this well known firm manufactures.

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Choosing the best cream separator is easy. The simplest is the best. No need to be fooled by claims that complicated machines are modern. Those who are misled by such claims are not satisfied until they discard their complicated machines for simple, sanitary Sharples Dairy Tubulars. Tubulars probably replace more common separators every year than any one maker of such machines sells. Disks and other contraptions cause work and trouble and are not needed in properly built separators.

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Increases your yield of cream and butter \$15.00 per cow each year.

Ask your dealer about the Great Western, and don't let him work any substitute game on you. It is your money you are going to spend, and we guarantee the Great Western to be satisfactory to you. Any kind of a test you want.

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Deposit in your local bank the price of the Economy Chief Cream Separator you want to try, or

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We will ship to you at once, freight prepaid, the separator you order, with the understanding that you are to set it up and try it on your farm for sixty days. Give it the hardest kind of a test; if possible try it alongside some other well known standard make, such as the Empire, United States or De Laval. Compare our machine in actual operation with any other. Note the amount of cream you get from each. Compare ease of running, time consumed in cleaning, and make any other comparisons you can think of. Never mind about the price; what you want from a cream separator is CREAM. If any other machine selling even as high as \$85.00 or \$90.00 will do better work, will skim closer, will give better satisfaction than our Economy Chief at \$42.50, our advice to you is, buy the other machine and send ours back.



When you have finished your sixty-day test, if you are perfectly satisfied that you have the best separator on the market, write us saying that you want to keep the machine, and we will send you a bill for your separator and the freight charges we paid on it.

If at the end of sixty days you are not satisfied that the Economy Chief is the world's best separator, you don't need to even tell us the reason for your dissatisfaction unless you wish to; just drop us a line saying you don't want the machine. We will then send you a return address card to tack on the box and we will pay you for your time and trouble in making the test, setting up the machine, repacking it and hauling back to the station. You set your own price. We don't want you to lose one penny in trying out the Economy Chief for sixty days.

If you want to send cash with your order, as most of our customers do, you won't lose any of the benefit of the above CHALLENGE OFFER, for if at the end of sixty days you decide you don't want the machine, if you think after a sixty days' trial you can get along just as well without a separator, or if you have seen a separator in operation giving better results than the Economy Chief, just send it back at our expense, tell us how much we owe you for freight charges, hauling from and to the station, setting up and repacking, and we will promptly send you every cent of the purchase price, plus your bill.



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☐ **CASH WITH ORDER.**
If you are enclosing the full price, simply write the amount in this square.

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If you have deposited the purchase price of the separator with your local banker, make an X mark in this square and enclose your certificate of deposit properly made out and signed by your bank.

☐ **BANK REFERENCE.**
If you prefer not to send us the money, or to hold it in the bank subject to our order, make an X mark in this square and enclose a letter of reference signed by your banker, telling us that you are a responsible property owner.

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Nearly everybody has a copy of our big General Catalog or our Cream Separator Catalog, but if you have not and want more information before ordering, make an X mark in this space.

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R. F. D. No. _____ State _____

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We think our Economy Chief Separator is the best machine in the world. We want to sell you an Economy Chief if you think the same as we do, not otherwise, and we make this challenge offer to give you a chance to find out all about the Economy Chief at our expense and to prove our confidence in our own machine.

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The Lawrence Pub. Co.,
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DETROIT, JAN. 22, 1910.

TO EXPLAIN OUR DATES.

A few months back we changed the designation of the date on name tabs by which papers are directed to destination. You will notice your date tab now shows the month with a figure 1 before it, and a figure designating the year in which the subscription will expire, after it. For instance, if your time is up February 1, 1910, it would read "1Feb0." Before we changed it, it read "Feb10." We made the change for the reason that many of the figures, in place of meaning 1910, meant the 10th of the month, that their subscription expired on that date, and that when their paper stopped the last issue in the month previous we were cutting them short. We do not make our name tabs show the week, but they show the month. With our large list, correcting them weekly would be a big task. We therefore send the back number to all orders received before the 15th, and date them back to the first of the month. Orders received after the 15th, unless they request back numbers, are dated the month following. We make this explanation so that all may understand we are not cutting any subscriber's time, but send in every case the full 52 issues, and to some more than that. We ask our agents and friends to make the above explanation to any who might think their time has been cut, by not remembering that they got back numbers when their subscription started.

CURRENT COMMENT.

The report that A Strike for Lower 6,000 Cleveland workmen had signed a Prices. pledge to eat no meat for a month, is the latest evidence that the people of Ohio are taking the question of the increased cost of living most seriously. It is reported that steps will immediately be taken to increase from perhaps 20,000 represented by the above pledges, the number of people who will abstain from meat eating one month, to as large a number as is possible to so pledge throughout the state. This movement, following closely upon the avowed intention of Governor Harmon, of Ohio, to institute an investigation into the cause of the greatly increased cost of living and provide a remedy if possible, is of peculiar interest to the people of the country as the initiatory effort toward the solution

of this question, which is demanding such general interest and which is being agitated to such an extent at the present time. Whatever the result may be in forcing the retail meat dealers to divide with their consumers a share of the 40 per cent profit which Secretary Wilson has shown that they are receiving as an average in the large cities of the country, it appears quite certain that this movement will have little direct influence upon the farm value of the raw material. A concerted movement of this kind embracing the country at large might have a desirable effect in cheapening the value of certain packing houses products largely consumed by the public which, in Secretary Wilson's report, as quoted in a former issue, are shown to be maintained at prices out of proportion to the values of the animals from which they are produced.

But it is certain that in the case of beef, at least, the farmers of the country who are in the beef producing business are not getting prices which will warrant a reduction and leave any profit in the business for them. The greatly increased cost of feeds which entered into the production of these animals is a factor of which the average consumer is largely ignorant, but it is a very real condition to the men who are in the business of producing beef or other animals for the market. The prices for other meat animals are now at a range which afford the producers a reasonable profit, provided they have been produced in a scientific and economical manner, otherwise the truth of this statement is questionable. However, these attractive prices have had the result of reducing the breeding flocks and herds of the country to such a low point that there can be no early relief for the condition of scarcity which undoubtedly causes the present high prices in every department of the live stock trade.

The many views which are advanced in the discussion of this problem of the increased cost of living are amusing to the producers in that they show such a lack of knowledge of the real conditions involved. Undoubtedly the demand for grains, which have heretofore been used in the production of live stock, for the purpose of human consumption has had much to do with keeping the prices of those grains at a high level with record-breaking crops produced in successive years as has been the case with corn. A general falling off in the consumption of meats, would increase consumption in these lines to no little extent, and in the end the situation would not be relieved, even tho such a movement became general. While this experiment will be watched with interest, we do not anticipate that it will prove a panacea for the trouble which it is intended to correct, and of which we shall have something to say in future issues.

The continued unsatisfactory condition of the potato market is discouraging to growers who are holding the tubers for better prices, and many growers are gradually letting go of their stored stock. In the meantime dealers are everywhere prophesying a level, or even a lower market, as the season advances. This, however, is not unusual, even in seasons when conditions improve with the advancement of the winter months, since dealers are ever prone to be upon the "bear" side of the market. In the meantime the tubers continue to be retailed in the large centers of consumption at prices which are not warranted by present prices in the country, and which naturally cause a renewal of the outcry against the middleman, who is accused of taking exorbitant profits. Undoubtedly there is plenty of ground for the assertion that the margin for distribution is too high; and yet the cost of distribution is unquestionably greater than the average man who is not a close student of the problem appreciates, and under present conditions is larger than usual.

The reason for this lies in the fact that many retailers hot in car lots on the early market, which was considerably higher than the present range of values. Then a very large percentage of city consumers, living in flats and in cottages without cellars have no place in which to store vegetables except for immediate use, hence are obliged to buy in small quantities. Most of those so situated buy not more than a peck of potatoes at a time, and the delivery of a car load of potatoes from the retailer's cellar in such small lots is necessarily expensive. Then another factor which has held retail prices up is the fact that the severely cold weather of December caught many of the potatoes that were moved at the reduced

prices following the slump, and an unusually large percentage of these were frozen or frosted in transit, which necessitated sorting and entailed a shrinkage which was passed on in the prices at which this stock was sold to retailers.

But with the advance of the winter months the retail price of potatoes must fall, unless the farm price advances to close up this gap. A falling off in price to the consumer will undoubtedly stimulate consumption to some extent, altho the American workingman is accustomed to living well, and will not curtail the variety of his foods more than is actually necessary. Yet there is bound to be some curtailment in the consumption of meats under present conditions, and there is always a tendency to increase the consumption of the cheaper foodstuffs.

But so long as supplies come forward to meet demands for consumption little improvement in prices is likely. Should current receipts fail to do this, however, there would undoubtedly be an improvement, since there are no large stocks in reserve in market centers. No man has the wisdom at this time to determine what the outcome will be. Undoubtedly there are a good many potatoes back, but the demand is also large, and it remains for the law which adjusts the one factor to the other to determine the outcome.

The Farmer and the Highway Law.

As before noted in these columns, reports received from various sections of the state indicate that the new highway law is giving varied degrees of satisfaction. In localities where the people of a township have been fortunate in the choice of a man for commissioner of highways, the new law has worked well and is giving satisfaction, while in other localities it has proven anything but satisfactory to at least a portion of the residents of a township. A recent communication from a Kalamazoo county subscriber indicates that in his community, there is a strong sentiment for a change to the old plan. A case is cited in which several families live on a cross road on which is located about the only gravel which is available in the township, the result being that the gravel has been removed from even the roadbed, leaving a section of it in such a condition as to be a hardship for the people living beyond this point on said road. It is also stated in this communication that the price paid by the commissioner for road work is so small that the farmers can not afford to put their horses at the work. This subscriber admits that if the right kind of men could be secured to serve as highway commissioners, the plan would doubtless work well, but says there seems to be a shortage of men fitted for the work who are willing to give their time to it at the price paid.

This is but one of the local phases of the operation of the new law which requires a local remedy, of which there are very many. Where the law is not giving satisfaction as at present administered, and where any proportion of the residents of a township are not satisfied with its administration, a little preliminary work will accomplish much in the way of bringing about more satisfactory conditions. If all those interested are gotten together at an informal meeting and the propositions involved are carefully gone over, and the opinion of a majority of those in consultation is accepted and acted upon by all, a good deal can be accomplished in the way of a practical reform in the administration of this new law. By concerted action and with the united support of those most interested, it should not be difficult to get some capable man to accept this office, and by the united action of a number of taxpayers, the township board, under whose direction the commissioner administers the law, would be certain to carefully consider the justice of the demands made by such citizens, and the extent and nature of the improvements needed in any section of the township would thus be brought to their attention in a forcible and effective manner.

A new system can not be expected to work perfectly at first, especially if the people of any community who are most interested do not give it a share of their personal attention in a business like and diplomatic manner. It is idle to wish for a return to the old system at present, as, under any conditions, the present law must apply until amended or repealed by the legislature. The thing to do is to bring about the best possible conditions under the new law and, if this is done, the probability is that the demand for a change will be materially lessened before there is opportunity to bring it about.

THE LAST DECEMBER ISSUE.

Many of our subscribers write, in renewing, that they failed to get the last issue in December. The last issue in December was the 25th. The first issue in January was January 1st. There was no issue in December after the 25th.

"1Feb0."

Does the date following your name tab on your paper show this "1Feb0?" If so, your time will be up with the last issue of this month, January 29. Please renew now. The three years for \$1.50 or five years for \$2.00, are special offers it would be well to take advantage of. A free premium is given with each subscription. A Class A premium with a one year subscription at 75 cents, or two Class A premiums, or one Class B premium, with a three or five-year subscription.

HAPPENINGS OF THE WEEK.

Foreign.

It seems from the early returns of elections in England that the Liberals will win out. They now have a working majority from the districts heard from and those yet to send in returns are generally stronger in Liberal sentiment than those reported. Should this be the case the conflict between the commons and the house of lords will be resumed, and will probably result ultimately in limiting the veto power of the upper body. It appears to be another of those crucial points in English legislative organization which have curbed the power of the lords.

Cooks and stewards to the number of thirty-eight were arrested from a Hamburg-American steamer at Cuxhaven, Germany, for stealing stores and provisions from the vessel.

Because the mayor of Naples, Italy, failed to carry out his scheme to build houses for the workmen to the satisfaction of the latter, a mob congregated outside the city hall Sunday and were only dispersed after they had overcome the police, by the arrival of troops.

Charles Page Bryan, American minister to Portugal, after a farewell banquet, departed for Brussels, the purpose of which is a mystery to the public.

It is asserted that many prominent persons are implicated in a plot of manufacturing bogus money in Spain. Among them is one of the nobility.

A sensation was caused in military circles in India by the arrest of ten persons of the Tenth Jats regiment, charged with sedition.

The French war sloop Martial was wrecked early this week on the coast of Minorca Island.

Emile Loubet, former president of France, is suffering from a cataract of the left eye.

National.

The Marshall railroad project which was abandoned many years ago has been revived by the recent transfer in several counties of the title deeds, but since there are different factions claiming title to the right of way it will be necessary to await litigation to determine rightful owners, before building can be begun.

New Orleans entertains the Mystic Shriners in April.

An Arkansas man has offered for distribution among unemployed men 4,000 acres of bottom land, the offer to be an absolute gift to each man of a ten-acre plot.

The fish commission steamer Albatross will carry an expedition to the South Atlantic and Antarctic oceans to make scientific and economical research should the plan of Secretary Nagel of the department of commerce and labor be carried out.

The National Civic Federation is in conference in Washington in conjunction with the meeting of governors from the several states for considering uniform state laws as regards to marriage, divorce, child labor, pure food, drugs, and control of forests and waterways.

The insurance department of New York state will attempt to take over the business of an insurance company of Onondaga county and \$3,000,000 assets. Sensational developments are looked for as the result of the activity of the department.

A ten per cent increase in wages is the demand to be formulated and presented to the operators by the bituminous coal miners who are in session at Indianapolis this week.

A hearing of the claim of Captain Frames and crew who lost a schooner and cargo of coal in Hatteras inlet while endeavoring to carry fuel to warships during the civil war, is being given before the federal court at Atlantic City.

John R. Walsh, who was convicted of wrecking the Chicago National bank, has been refused a writ of certiorari by the United States Supreme Court.

The village of Collingwood, with a population of 10,000, has been annexed to the city of Cleveland, Ohio.

Gov. Hughes, of New York, declares that he will retire from politics as soon as his term of office as governor is completed.

A conference of physicians and public officials interested in the hookworm disease in the south, is in session at Atlanta, Ga., this week considering ways and means of combatting the trouble.

The war department will send men to blast out the ice gorged in the Ohio river below Louisville where the dam threatens to back water into the numerous towns and cities along the stream.

The investigation into the white slave trade of New York city has already resulted in many indictments.

For fear of an attempt upon his life since being threatened some time ago John D. Rockefeller has had his servants made deputies.

Toledo is making quick preparation to

\$8.50 Lowest Price On Best Spreader

New F.O.B. Factory

Ever Made.



Complete
ALREADY
To Hitch To.

Largest Capacity

one. You get a guaranteed, lightest draft wagon-box spreader made and a regular complete farm wagon, all in one when you buy the Grinnell.

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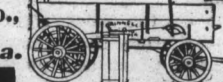
The Grinnell is sold with or without the trucks on 90 days free trial, direct from factory to you. Will save you \$25 to \$30 on your spreader investment. The greatest machine ever invented in the manure spreader line. You want to know more about it. Write for catalog and special offer without fail today. Address

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159 Main Street

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WESTERN CANADA

What Governor Deneen, of Illinois, Says About It:

Governor Deneen, of Illinois, owns a section of land in Saskatchewan, Canada. He has said in an interview:

"As an American I am delighted to see the remarkable progress of Western Canada. Our people are flocking across the boundary in thousands, and I have not yet met one who admitted he had made a mistake. They are all doing well. There is scarcely a community in the Middle or Western States that has not a representative in Manitoba, Saskatchewan or Alberta."

125 Million Bushels of Wheat in 1909

Western Canada field crops for 1909 will easily bring \$170,000,000.00 in cash. Free Homesteads of 160 acres, and pre-emption of 160 acres at \$3.00 an acre. Railway and Land Companies have land for sale at reasonable prices. Many farmers have paid for their land out of the proceeds of one crop. Splendid climate, good schools, excellent railway accommodation, low freight rates, wood, water and lumber easily obtainable.

For pamphlet "Last Best West," particulars as to suitable location and low settlers' rate, apply to Sup't of Immigration, Ottawa, Can., or to the Canadian Government Agent.

M. V. McInnes, 176 Jefferson Ave., Detroit, Mich.; C. A. Laurier, Marquette, Mich.

**LET ME CURE YOUR
ASTHMA
CATARRH
FREE**

50c. Package.

Don't despair if you have failed to get a cure from doctors, inhalers, smoke powders, douches, or anything else. My Remedy cures quickly and permanently. Few cases of Asthma, Catarrh, Bronchitis has my remedy failed to benefit, no matter how chronic. The agonizing coughing, gasping, fainting, hawking, spitting, foul breath, etc., were relieved instantly. Send me your name and address; at once and I will mail you FREE 50c. Package of my Remedy in plain wrapper. Write today.

T. GORHAM, 460 Gorham Bldg., BATTLE CREEK, MICH.

LET US TAN YOUR HIDE,

Whether Cow, Steer, Bull, or Horse Hide, Calf, Dog, Deer, or any kind of hide or skin, soft, light, odorless and moth-proof for robe, rug, coat or gloves, and make them up when so ordered.

But first get our illustrated catalog, with prices, shipping tags and instructions. We are the largest custom fur tanners of large wild and domestic animal skins in the world.

Distance makes no difference whatever. Ship three or more cow or horse hides together from anywhere, and Crosby pays the freight both ways. We sell fur coats and gloves, do taxidermy and head mounting.

The Crosby Frislan Fur Company,
Rochester, N. Y.

**ELECTRIC
Steel Wheels**

for your wagon. Use your old running gears—our steel wheels will fit them and make your wagon good as new. Send for free catalog of solid metal wheels (sizes to fit all axles) that cannot swell, dry apart or rot. Make a new wagon out of your old one. Write for the book now to

ELECTRIC WHEEL CO., Box 35, QUINCY, ILL.

ECZEMA

CAN BE CURED. My mild, soothing, guaranteed cure does it and FREE SAMPLE proves it. STOPS THE ITCHING and cures to stay. WRITE NOW—TODAY.

DR. CANNADAY, 166 PARK SQUARE, SEDALIA, MO.

Wanted Agents, to sell the Farmers' Account Book. Quick seller. Big inducements. Exclusive territory. Address L. L. Syphers, Fort Wayne, Ind.

ALFALFA SEED \$16.00 per cwt. on board cars at Dietz, Wyo. Bank ref. given, TOM ROGERS, Pearl, Mont.

When writing to advertisers please mention the Michigan Farmer.

protect herself against a threatening flood which has already started and will increase rapidly should the warm days continue long. Ice crushing boats have been ordered from Detroit to keep the mouth of the Maumee open.

The United States Supreme Court, with three judges dissenting, declared the Bush act of Kansas, which sought to collect a fee on outside corporations doing business in the state, to be invalid.

An investigation by the attorney general of Texas into an alleged combination of the cement manufacturers of that state, Oklahoma and Kansas, is begun.

The Brazilian envoy to Washington, Senor Joaquim Nabuco, one of the most prominent Latin-American diplomats, died in that city of apoplexy, Monday.

The state board of health of Texas has revised the sanitary code of the Pullman cars of the state by prohibiting the porters from sleeping in berths for white people and from using sleeping car linen for their own use.

The fifty-fifth annual meeting of the Western New York Horticultural Society will convene at Rochester, N. Y., January 26-27.

Secret service men have rounded up 14 Italians who are charged with counterfeiting two and five dollar bills and passing them in New York City.

The supreme court of the United States has handed down decisions in the past few days which give the interstate commerce commission power to control distribution of cars.

A suit has been started in Cleveland by the stockholders of a company to test the constitutionality of the federal income tax law.

Fourteen Sicilians are being tried in Toledo as members of a black hand organization.

General Leonard Wood, organizer of the Rough Riders, has been appointed commander of the department of the east of the United States army, with headquarters at Governor's Island.

The funeral directors of the city of Detroit, are organizing to restrict the business, they declare, to persons who are properly trained.

A motion has been introduced into Congress by Representative Loud of Michigan, asking for bids for the raising of the Battleship Maine in the Havana harbor.

Ninety-three miles of track were washed away on the San Pedro line in California during the recent heavy storms and floods about Los Angeles.

Official announcement was made by the national shoe wholesalers' association in session at Boston, that the price of shoes will be advanced shortly.

It is expected that Congress will remove the tonnage tax law on cargoes carried by boats which touch Canadian points on the great lakes.

C. R. Heike, secretary of the sugar trust was indicted last week by the grand jury investigating the charges against the sugar trust.

The state tax commission announce that the state tax for 1909 was \$5,929,304.89, an increase of \$1,754,971.09 over 1908. The railroad assessments fixed by the tax commission exceed those of a year ago by \$6,885,000.

CROP AND MARKET NOTES.

Shilawasee Co., Jan. 3.—Weather moderating and snow going off. Roads very icy and very little traveling. Farmers are busy cutting wood and getting ready for spring work. A few farmers husking their corn with the machine. Hay balers at work. A few farms changing hands. Farms are selling anywhere from \$60 to \$110 per acre, depending upon location from city and the soil. Farmers are rather slow about taking sugar beet acreage, the season being against the crop last year placed it below the average as a money crop. Lambs are constantly coming and going to market. No cattle on feed.

Washtenaw Co., Jan. 4.—January has opened with some extremely severe weather. Since the setting in of winter weather it has been very even, but cold. The best kind of feeding weather for all kinds of stock. If you will supply the rations in liberal amount the stock willingly does the rest. If the remaining months continue as severe, a good many farmers will wish they had not been so hasty in baling and selling their hay at \$9@10 per ton. People are taking advantage of the opportunity to fill ice houses with beautiful ice of 10 to 12 inches, in marked contrast to last winter when we had to be content with 4 or 5 inches of a very different quality. Meats of all kinds maintain their high price, hogs especially being in great demand and very scarce. Butter, 35c per lb.; eggs, 30c per doz. These are the three articles this immediate section is most interested in and practically all of the grain products are made over into one or the other of these articles, to the marked advantage of the pocketbook. Farmers for the most part are prosperous and satisfied with the outlook.

Northern Isabella and Southern Clare Co.'s, Jan. 6.—We have had three weeks of fine sleighing but a bad blizzard since the night of Jan. 4. Very little work being done by the farmers more than the chores. Some hay being sold, average price, \$12. Lumbering is a thing of the past. A large per cent of the farmers buying coal and that quite scarce. Fat hogs and cattle scarce and high. Eggs 28c; butter 28c; taxes are very high.

Gratiot Co., Jan. 4.—Gratiot county has enjoyed good sleighing since Dec. 12, and along with it good snug winter weather. Scarcely a day during this time that snow has not fallen. New Year's day was damp with a south wind and some rain. The eight or ten inches of snow then on the ground settled about one half. The roads were well iced the second of January, it being colder. Heavy snow fell during the eve of the fourth, accompanied with enough rain to form a crust. Wheat is well protected and there is little prospect of its being made bare until there is a thaw. Straw and fodder are in demand.

Hay is selling at \$11@12.50; oats are advancing and 50c per bu. is anticipated. Some few farmers still have hogs fattening but they are picked up quite close. A hog famine seems almost inevitable. Potatoes are selling for 45c; butter, 25c per lb.; eggs, 28c per dozen.

Lapeer Co., Jan. 6.—Winter steady and at times severe temperature, dropping down near the zero mark occasionally. Wheat and clover has been under a snow cover protection for nearly seven weeks. Stock of all kinds on the gain and shows quite an improvement in their appearance and condition, since the drouthy pastures of last autumn. Prices for cattle on the boom. Yes, and hogs and sheep also. Not much wheat and oats are being marketed at present. Farmers seem to be holding for still better prices. Hay holds at good prices. Farmers have shoved most of their surplus potatoes on to the market notwithstanding the very low prices; perhaps they think that prices will not be any better for this crop. The writer, in a twenty-three-mile trip thru eastern Lapeer county lately, saw an occasional field of corn that was not all husked. Beans, since the most of the crop has been sold, are now coming up in price. Rye, not much left on farmers' hands, acreage of same put in last fall cut about 40 per cent in comparison with the past five years. Some Lapeer county farmers are dropping on the new idea of sowing speltz, (or emmer), a new Russian grain, for the new spring crop; said to be splendid for hogs, (ground alone); chickens, turkeys and other fowls bring good money, which they should, for being fed on high priced grain.

CATALOG NOTICES.

The Marlin Fire Arms Co., New Haven, Conn., are sending out a superb catalog of 136 pages giving information relative to rifles, shot guns, ammunition, etc. This catalog has a beautifully lithographed cover, after the famous painting, "Quail Shooting in England."

The New-Way Motor Co., Lansing, Mich., are publishing a new farmers' catalog designated as C-9, fully illustrating and describing their New-Way air cooled motor which is especially adapted for use as a farm power. This catalog is mailed free upon request to those mentioning this paper.

"The Story of Kate and Queen" is the title of a new book by Prof. Jessie Beery, of Pleasant Hill, Ohio, renowned as the world's master horseman. It is the life history of two horses, rivals the famous book, Black Beauty, in interest and explains why some horses develop ugly and others gentle dispositions. The retail price of this book is 50 cents, but it will be mailed free to every reader of this paper who writes Prof. Beery direct, enclosing two cents in stamps for postage.

The New Seed catalog just issued by R. H. Shumway, of Rockford, Ill., contains hundreds of beautiful illustrations and is a mine of information on garden and flower seeds. It will be sent free to readers of this paper.

The International Harvester Co., Chicago, Ill., are distributing thru their agents, handsome 1910 art calendars and posters free to their farmer friends who ask for them. Every reader may secure one of these calendars and posters from the local representative or agent of this company in his territory. Space will not permit a description of these calendars, all of which are works of art.

The Atlas Portland Cement Co., Department 12, 30 Broad St., New York, are sending out an unique and useful calendar for 1910 which presents seasonable suggestions for the various improvements which can easily be made in concrete about the farm. They are sending it free to readers of the Michigan Farmer upon request.

Darling & Beahan, of Petoskey, Mich., are mailing their 1910 catalog describing their hardy northern seeds to those who write them requesting it. Those who are interested should write them, mentioning this paper.

A beautiful calendar, issued by the Michigan Agricultural College, has been received at this office. It gives a number of pictures of buildings, campus scenes, laboratories, etc. To those who have known the college for many years, it brings vividly to mind the great progress made by this institution in recent years.

The Storrs & Harrison Co., proprietors of Painesville Nurseries, Painesville, Ohio, are sending out their catalogue for the spring of 1910. This is a large catalogue of 170 pages fully describing and illustrating their complete line of farm, garden, and flower seeds, plants, shrubs, and trees.

J. G. Harrison & Sons, Berlin, Maryland, are sending out their special catalogue describing their large line of fruit, plants and trees, and nursery stock of all kinds for ornamental planting, including shrubs, vines and ornamental trees.

CHANGES IN FARMERS' INSTITUTE SCHEDULE.

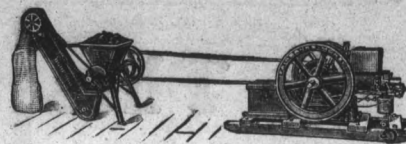
Since the publication of the list of institutes for January, it has been necessary to make a number of changes in the places where they are to be held. The following changes are announced by Supt. Taft:

Two-day Institutes:—Sanilac Co., Marlette, Jan. 27-28. (Instead of Jan. 28-29).

One-day Institutes:—Allegan Co., Hopkins, Jan. 24; Plainwell, Jan. 25; Otsego, Jan. 26; (Instead of Jan. 26, Jan. 25, Jan. 24, respectively as given).

THE COMING AUTOMOBILE SHOW.

The annual automobile show will be held in the Wayne Pavilion, Detroit, Mich., on January 24 to 29, inclusive. Undoubtedly this will be the greatest automobile show in the history of the industry, since the automobile industry is greater than ever before and Michigan is in the lead, with Detroit the great center of manufacture and trade in this great line of business. This show will afford every person interested in automobiles an opportunity to see and study a great variety of makes and styles.



Correct Grinding

of corn on cob is easily
accomplished with the

Fairbanks-Morse Steel Feed Mill

The high price of feed makes it important that you do your feeding on a scientific basis. FAIRBANKS-MORSE FEED MILLS are best on account of their light draft, large capacity, strength and long life. They are designed for slow speed, which reduces friction and wear. A 2 H.-P. Jack-of-all-Trades Engine will run one of these mills, crushing ear corn and grinding it fine in one operation. Shelled corn or other small grains, separate or mixed, can be ground fine in one operation. Made in two sizes: Sacking Elevator can be used with either size. Moderate price; greatest value ever offered. Send for Fairbanks-Morse Feed Mill Catalog, No. LD 601 which also shows corn shellers and Fodder cutter.

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Engines, Electric Light Plants, Scales, Windmills,
Pumps, Pump Jacks, Belting, Roofing, Shattling,
Pulleys, Fittings and Hose.

Fairbanks Scales



Next
Time
You
Go To
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be sure to ask your storekeeper to show you
a pair of Extra Heavy

PRESIDENT SUSPENDERS

Just give them a try-out as a work suspender. You'll find them so much more comfortable than the right-back kind you have been wearing and last so much longer, that you will never want to wear any other kind.

The sliding cord in the back takes all strain from your shoulders, allows freedom of motion, and prevents chafing.

Maker's guarantee on every pair—SATISFACTION. NEW PAIR OR YOUR MONEY BACK. If your storekeeper doesn't have the Extra Heavy Weight, made especially for farmers, we will send you a pair postpaid, upon receipt of price, 50c.

The C.A. Edgarton Mfg. Co.
SHIRLEY PRESIDENT SUSPENDERS

756 Main St., Shirley, Mass.

GOING TO DETROIT Automobile Show?

The Big Event of the Year.

JAN 24 to 29

More than 200 different
kinds and styles.



2000 RAILWAY MAIL CLERKS—CUSTOMS EMPLOYEES

to be appointed during 1910. Many Spring Examinations. Salary \$600 to \$1500. Steady work. Short hours. Common education sufficient. Write immediately for Schedule showing places and dates. We prepare candidates free. FRANKLIN INSTITUTE, Dept. 49, Rochester, N. Y.

WANTED—Girls at the University hospital. Catherine St., Ann Arbor, for general hospital work. Wages, \$15.25 to 17.50 per month with room, board and laundry. Address J. B. DRAPER, Supt.

TAKING THE CENSUS Just the GAME for the Boys and Girls. Very instructive and amusing. Send 25c to G. H. FRIES & CO., 2802 N. High St., Columbus, O., and get one by return mail.



This
is the trade-
mark which is
found on every
bottle of the
genuine

Scott's Emulsion

the standard Cod Liver Oil
preparation of the world.
Nothing equals it to build up
the weak and wasted bodies
of young and old. All Druggists

Send 10c., name of paper and this ad. for our
beautiful Savings Bank and Child's Sketch-
Book. Each bank contains a Good Luck Penny.
SCOTT & BOWNE, 409 Pearl St., N. Y.

FERRY'S SEEDS

To grow the finest flowers and most luscious vegetables, plant the best seeds. Ferry's Seeds are best because they never fail in yield or quality. The best gardeners and farmers everywhere know Ferry's seeds to be the highest standard of quality yet attained. For sale everywhere.

FERRY'S 1910 Seed Annual

Free on request

D. M. FERRY & CO.,

DETROIT, MICH.

GREGORY'S SEEDS

Known as **HONEST** seeds; always sold under three warrants. Special cash discounts given to everybody. (See page 1 of catalogue.) Gregory's Excelsior Peas, heaviest cropper of the second early varieties. On high land this pea will produce a crop where others fail. Very prolific on heavy soil.

NEW SEED CATALOGUE FREE

Largest and most beautiful we have ever issued. Rich with information for the guidance of farmers.

Write to-day for a copy.

J. J. H. GREGORY & SON

Marblehead, Mass.

GREGORY'S HONEST SEEDS

TREES THAT GROW

Apples 5c, Peach 5c, Plum 12c, Cherry 15c. Best quality, good bearers, grafted stock, not seedlings. Concord Grapes \$2.50 per 100. Forest Tree Seedlings \$1.00 per 1,000 up. We pay the freight.

Complete line of Vegetable, Flower and Farm Seeds. Our large illustrated catalogue free. Also free sample packet of "New Coreless" Tomato, the best of all tomatoes.

German Nurseries, Box 127, Beatrice, Neb.

IT PAYS TO SPRAY

The Iron Age 4-row Sprayer gives perfect satisfaction. Puts solution just where needed and in fog-like mist. Pump delivers spray under high pressure, thus reaching every part of vine, effectually killing bugs and preventing blight. Has Orchard Spraying attachment. Write for free catalogue illustrating this and other Iron Age tools.

IRON AGE

Nozzle Strainer Prevents Clogging

BATEMAN MFG. CO., Box 104S - GRENLOCH, N. J.

SAVE HIRED HELP

Iron Age Four-Row Sprayer

PEACH TREES 3c, Cherry 12c and up. Apple, Pear, Plum, Quince, and all kinds of Trees and Berry Plants. Peach Blow Potatoes, B. P. R. Chickens and Eggs. Ct. Free.

ERNST NURSERIES, Moscow, Ohio.

FRUIT TREES Michigan Grown are the best for Michigan Planters. Healthy, finely rooted.

Direct to you at great Money-Saving Prices. Handsome 1910 Catalog and price List FREE. Write to-day. CLEARY CITY NURSERIES, Kalamazoo, Mich.

SEEDS—CLOVERS, TIMOTHY, BLUE GRASS, Orchard Grass, Red Top, etc. Send for prices and samples.

ZACK DAVIS CO., Delaware, Ohio.

SEED CATALOG—Send us your name and address, and we will mail you free our new 1910 catalog of seed potatoes, seed oats, seed corn, alfalfa seed, in fact everything in seeds.

MACE & MANSFIELD, Greenville, Ohio.

WHOLESALE PRICES On Strawberry, Raspberry, Blackberry, Currant and Grape Plants. 18th annual descriptive and illustrated wholesale and retail catalog FREE.

A. R. WESTON & CO., R. D. 1, Bridgman, Mich.

HORTICULTURE

CHANGES IN SPRAYING FORMULAS.

The season of 1909 has afforded some experiences that are valuable and some that mark progress on the part of fruit growers. One in particular which gives encouragement is the success attained in holding the San Jose scale in check. Three years ago it was discovered that this pest was generally scattered thru the orchards of this entire vicinity and orchardists woke up to the fact that they had a serious problem to meet. The larger growers installed cooking plants for the preparation of lime-sulphur spray and spray material was shipped in by the car load. The warfare that has been waged has been so successful that the scale is under absolute control. Except for these vigorous measures the scale might have been expected to have generally covered our orchards and very little merchantable fruit looked for by this time. As it is, the loss from this source has been practically nothing. In our own orchards the scale has been found in several places well scattered throughout the orchards, but with the exception of two trees that seem to have been missed in some way in spraying, the total loss would not aggregate two bushels in two thousand barrels. And these results have been reached by the work of ordinary hired men in applying the spray, and by practically inexperienced men in preparing it, notwithstanding assertions to the contrary.

It has been found, too, that the work can be much simplified by reducing the amount of lime called for by the usual formula for making this spray. The ordinary proportions have been 15 lbs. of sulphur, 25 lbs. of lime to 50 gallons of water, but the quantity of lime has been reduced all the way to as low as 8 lbs! In our own practice last spring we used 50 lbs. of lime and 60 lbs. of sulphur for 200 gallons of water. This made a wash that stood in suspension better and required less agitation than where, as formerly, 100 lbs. of lime was used, and the wear on the pump was less. Mr. C. B. Welch, of this county, has experimented with a mixture of 8 to 10 lbs. of lime to 15 of sulphur and has found that he can make a clear solution that in concentrated form can be carried to distant orchards and there reduced and applied. This can be kept for some time, perhaps indefinitely, without crystallizing. Samples of this preparation have been sent to the Department of Agriculture at Washington, for analysis and is found to be fully equal to the commercial preparations now on the market. This is going to be something of a boon to growers, as the cooking can be done in advance and the spray be ready to apply when the time comes without any possible delay for cooking. This preparation costs not more than half the price asked for many of the prepaid mixtures. Some who do not own cooking plants and who, in the past, have been delayed in getting their spray mixture cooked have used the commercial mixtures and have met with good results, altho, as a rule, the spray has been reduced less than has been recommended by the manufacturers.

It has also been found that the usual formulas for making Bordeaux mixture can be considerably reduced with even better results. The proportions recommended are four to six pounds of vitriol, six to eight of lime to 50 gallons of water. A number of our growers are now using three pounds of the vitriol with plenty of lime to counteract the caustic effect. This mixture controls fungus equally with the stronger mixture and russets the fruit less, besides being cheaper.

Allegan Co. EDWARD HUTCHINS.

THE BUILDING AND MANAGEMENT OF HOT-BEDS.

It is a matter of regret that so very few home gardens, either suburban or rural, are supplied with anything akin to hot-bed facilities. If any one class of people in the world more than another are entitled to the good things of life it is the owners and tillers of the soil. Yet, careful investigation along these lines will reveal the fact that they, most of all others, deprive themselves of these good things growing out of the ground. By this I simply mean that those lacking facilities for growing vegetables, buy and pay their good money for them, while those with conveniences lying loose all around them simply allow the matter to go by default, neither growing or buying them.

It is too late, even this early in the season, to start the subject of hotbeds where it properly begins. Autumn was the opportune time to begin the work, when excavations could be easily made, and soil of ideal nature could be procured and stored ready at hand for an early beginning. But "come now and let us reason together" and see if ways may not be devised whereby this loss of time, at least, may be partially compensated, and even yet a good start be made for the coming spring in this so much neglected essential of home gardening.

The Sash.

These may be ordered in almost any size of any sash and door manufacturer, or they can be ordered specially of the makers of this line of goods, all painted and glazed ready for use. The most convenient size for ordinary use is about 3x5½ ft. This will give three rows of 10x14 glass with very little, if any, waste. If the glazing is done at home, (which plan I very much like), the glass should be given not to exceed a quarter-inch lap. I do not like the plan of fitting the glass end to end as some advocate, for with the slight slope of the hotbed it is impossible to insure against leakage, which is so objectionable. With dimensions of sash as above there will be very little waste in cutting lumber, and fitting of cloth-covered frames, (which will be mentioned later), will be easily done.

The Frames.

As to size, these should be made with reference to the size of, and number of, sash to be used. For instance, the dimensions of the latter given above, if four are used, will cover a frame 5½x11½ ft. which, for all purposes is the most convenient in use. Many growers use a simple box of equal height on both sides; and for slope or water shed depend upon tilting one side on bricks or blocks. This is a poor, shiftless plan; but still, is better than none. The best frame is made 12 inches on the lower side and 18 inches on the higher side. This gives ample slope and is best for all purposes. Good inch lumber is sufficiently heavy and every frame should have cross ties or such rests of one inch by three, placed every three feet. These are better if adjustable. On lower side and also ends of frame, a strip should be nailed to project half an inch or more above the edge of frame, which will prevent sash from slipping, and hold them in proper place. Now, if measurements have been carefully made, when strips are nailed in place, four sash, of given size, will closely fit and nicely cover the 5½x11½ frame. It pays to be exact in the work for a slipshod frame and rickety, loose-fitting sash are an abomination.

Heating Material.

The best material for this is grain-fed horse manure carrying about one-third its bulk of short straw, or better, straw and leaves. This should be carefully stored under shelter and not allowed to heat until time to prepare it for use. The time required to season it ready for the bed will depend very largely upon weather conditions and place of storage. But eight or ten days before it is required for use, it should be carefully forked over, picked to pieces and piled. This will induce fermentation and consequent heating, which, if not rapid enough, may be hurried by pouring hot water into the heap and covering with straw or other litter. When heat is well started, fork over again and repile, which will give uniform temperature thruout the heap. When well heated the second time it is ready for use.

Filling In.

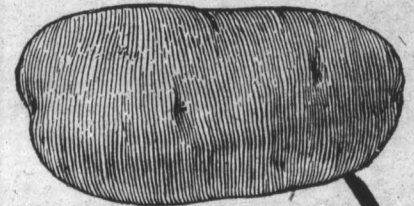
This is one of the most particular points of successful hotbed work, and much of success, or otherwise, will depend upon how it is done. The material should, of course, be well heated when filling begins. The ground should be free from snow and ice, and the heating material carefully placed in rectangular heaps a foot larger each way than the frames. Every precaution must be taken to keep the surface and tramping uniform, lest the bed settle unevenly and no end of harm result. The tramping must be thoro and the mass equally solid at every point.

As to depth of bed, that depends much upon time of starting, whether early or late; but in general it is safest to prepare the bed for long service. And this can only be provided for by a heavy body of heating material. A light mass will give quick service, but is necessarily short lived, while the heavy will give equally rapid heat but of much longer duration. So the writer believes it always wiser to give the latter conditions. In brief, a two-foot depth is none too much. Fifteen to eight-

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een inches will be sufficient until after the frames are set, and the balance can be made inside the boxes. When the filling is complete, the outside should be well banked clear to top of frame, with same material as the bed. Then place the sash and let them thus remain for say, two or three days, or until the heat is well started, when the soil can be put on. After this, it will be time and labor saved to let it thus remain for a few days to allow the weed seeds to germinate, then rake thoroly and when the temperature, which sometimes reaches a high point, settles to about 85 or 90 degs. it is safe to sow the bed.

Concerning Soil.

By far the better plan is to secure this in autumn and store it so that it is accessible at any time. But in default of this, then it ought to be secured at the earliest possible time. A rich loam is best; but by all means reject that containing any considerable percentage of clay as it will very likely bake or crust, and plants will never thrive under such conditions. It will be of great benefit if, with the soil, is mixed say, a pint or more of air-slacked lime to the bushel. It will destroy fungus germs and insects and also check the tendency to bake if there happens to be too much clay. Following above suggestions will bring the beds up to seeding time in ideal shape, and the after management will depend upon the kinds and varieties of plants to be grown.

Wayne Co.

J. E. MORSE.

THE FUTURE OF SPRAYING.

The future of spraying is, without doubt, most assured for it is the orchard operation (with emphasis on the), that will give the best returns in good fruit and dollars for the money invested and the best returns regardless of the amount of money invested. Without spraying good fruit can not be grown. With spraying alone it can. No man who has had experience or who has seen the results of other's experience will argue against it. Individual failures are not due to the means but to the man and his methods.

The present day spraying is by no means perfect. Better fungicides and insecticides, and better methods and times for applying them are needed. The strong competition between the manufacturers of spraying outfits is bringing on gratifying results in improvements in appliances for applying the spray. The general unrest among experimenters show that there is "something doing," in the way of new fungicides and insecticides or great improvements on the old. A new fungicide is especially desired on account of the russetting of the fruit by the Bordeaux mixture. The increasing popularity of lime-sulphur as a fungicide and reports of successes with a mixture of copper sulphate, lime and sulphur and from Germany the new fungicide consisting of a combination of copper sulphate, lime and cane sugar which is soluble, show that the days of Bordeaux mixture are numbered.

The insecticide for chewing insects will probably not change much. Some arsenical poison will undoubtedly always be used. The improvement will come, tho, in getting more accurately the time for applying to get the best results. Spraying calendars, bulletins and other printed instructions are not the only directions to follow. To get the best results the farmer will have to be entomologist enough to know the habits of the codlin moth or other insects to be controlled and to watch them for the proper time for spraying.

Lime-sulphur and the oils are the only practical means of controlling the scale which can rightly be called the fruit-growers' friendly enemy. It is friendly because it is fast killing off the neglected trees, an enemy because it causes him much disagreeable work. Improvements in its control will lessen the disagreeable features of lime-sulphur and the efficiency of the oils.

So. Haven Exp. Sta. F. A. WILKEN.

TESTING SEED IN INCUBATOR.

Had you ever thought how easy it would be to test the garden and field seed in the incubator before or even during the first hatch? If you wish to test the seed in the winter before the incubator is in use make a false tray with wooden bottom, and fill with sand or soil. In most incubators such trays could be used by putting one below the egg chamber. These trays should be ruled off into squares so that the different seeds or varieties may be kept separate. Plant the seeds, water well and cover the tray with a heavy woolen cloth to retain the moisture. By keeping the temperature up to or above

85 degs. the seed will germinate in a few days. If one wishes to grow early plants by this method they may be allowed to germinate and grow for a few days in the tray, then remove to the light as the incubator will probably be too dark for plants after the first week. If the incubator is in use for hatching, plates containing two flannel cloths may be placed under the egg tray and kept moist, where the seed will germinate without interfering with hatching.

Missouri. H. F. GRINSTEAD.

SPRAYING FACILITIES AND EQUIPMENT.

The following is the substance of the paper delivered by horticultural field agent, O. K. White, of the Agricultural College, before the recent annual meeting of the Michigan Horticultural Society:

The mixing station deserves more attention than most fruit growers give it. It should be complete and convenient in arrangement so that valuable time and materials may be saved and the spray made in the proper way. A mixing station to be recommended would include an elevated storage tank for water, of sufficient capacity to meet every need, stock solution tanks, dilution tanks, a good strainer and a trof to transfer the dilute solutions to the spray tank. An operator should be able to properly prepare and load 200 gallons of Bordeaux in less than 10 minutes. The advantage of thoroly stirring the stock solutions and of having conveniently graduated tanks was noted. Rapid methods of dissolving the copper sulphate were by the use of steam or shallow trays having considerable dissolving surface. In discussing spraying outfits, he emphasized the fact that "all spraying outfits have their good and bad qualities and no one excels all the rest."

The sprayer should be adapted to the spraying to be done, should be as simple and easy of operation as possible, light and still strong enough to produce the desired pressure. Knap sack and bucket pumps have their place in the dooryard or small home fruit gardens. Hand barrel pumps are adapted to areas up to five acres in extent. In areas ranging from five to ten acres the double cylinder hand pumps attached to 100 to 150 gallon tanks have greater capacity and power and save much time in running back and forth to the mixing stations and in refilling. For vineyards, berries and potatoes, special types of sprayers are used. The traction outfits are the most common and generally give satisfaction. For grapes two vertical spraying spars with three or four nozzles for each row should be provided, or the spars may be arranged to spray both sides of one row only, and such an arrangement seems to do better work. For strawberries and potatoes, horizontal spars arranged to spray from three to five rows are best. Two or three nozzles per row do better work than one, on potatoes. For orchards of large areas some form of power sprayer is necessary. Engines of two or two and a half horse power are more dependable and more durable. A good strong 10-cylinder power pump with large capacity should be used. Such an outfit should be able to maintain a pressure as high as 150 pounds and it would be better to have it 200 pounds, especially in spraying apples just after blossoming time, as it is so necessary to do a thoro job to control codling moth and scab. The spray nozzle is one of the most important parts of a spraying outfit. For vineyards, berries or potatoes, the ordinary Vermorel type is very satisfactory. For orchard use these may be arranged in clusters limited to four in number. The nozzle that gives the best satisfaction for general use, both for lime and sulphur and Bordeaux, is known as the Friend type. Angle nozzles are very handy as the operator can throw spray in several different directions by simply turning the extension rod. The use of a tower in orchard or park use is to be urged. If the apple trees are too high to be reached with an eight-foot tower they had better receive a severe heading in.

Every spraying outfit should have some form of an automatic mechanical agitator. Jet and hand agitators do not give satisfaction. The automatic agitator may be propelled by a sprocket wheel fastened to the trucks or axle or from the engine shaft. The propeller type gives the best agitation. The importance of cleaning the pump, tank, valves, and nozzles after each day's work and especially at the close of the season was emphasized. Before putting away the spraying outfit, oil all working parts so that they will not rust during the winter.

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OF INTEREST TO WOMEN

Country Girls Advantages Over City Girls.

A great many girls living in the country get the idea that if they want to earn money, they must leave home and go into the city. They wish to become stenographers, clerks, office assistants, or factory hands, whichever they feel they can do, and whatever fate opens unto them. They believe the city girl has a life of ease and pleasure, and the excitement of city life will make up for the long hours of steady labor.

It is true that a number of country girls work harder than some girls who are making a living for themselves in the city, but the majority of them have it far easier. They know nothing of the nerve-racking hours spent at desk, counter, or some noisy machine, where every minute of their time belongs to their employer and the pay in far too many cases, is very poor. They have their food and shelter to pay for, their laundry and car fare, and the little pittance that is left, is barely enough to keep the wardrobe in repair. Then there is the worry of being laid off, of losing their position and tramping for days in search of new work, while the expenses go on just the same.

Often to save expenses girls will rent a room and undertake to do their own cooking, maybe getting their noonday

lunch at a counter or restaurant and getting whatever can be procured easily and quickly in the morning and evening. How long would the country girl, used to good, nourishing food, be content with these hasty lunches?

Life to the average working girl is not the rosy-hued affair it appears to the girl living in the country. The long hours of confinement soon tell on the nervous system, late hours and insufficient sleep soon hollow cheeks and steal away the ruddy health and bright complexion.

There are a great many things the girl can do on the farm to make her extra spending money, when father cannot afford to give it to her. She can interest herself in raising fancy poultry, become expert in dairying work or fancy gardening. Raising pigeons also pay well and there are several other means of light, interesting work that a girl on a farm may do. The girl who can stay home and help mother, or be an assistant to father, should realize that she is fortunate in not having to seek an opening. Whoever is needed badly in the place they find themselves has a mission they can scarcely put aside. The great secret of success is to elevate your present position to its highest point.

ELISABETH.

THE BOYS THAT RUN THE FURROW.

You can write it down as gospel;
With the flags of peace unfurled,
The boys that run the furrow
Are the boys that rule the world!

It is written on the hilltops—
In the fields where blossoms blend;
Prosperity is ending
Where the furrow has an end!

The glory of the battle,
Of clashing swords blood-red,
Is nothing to the warfare
Of the battle hosts of Bread!

The waving banners of the fields
O'er the broad land unfurled—
The boys that run the furrow
Are the boys that rule the world!

NATURE'S WOODLAND STORES.

BY EMILY L. RUSSEL.

Shell fruits, as nuts are sometimes called, differ greatly from the succulent fruits, both in appearance and nutritive value. The nuts in general contain no starch, and very little water, but quantities of nutriment in a highly concentrated form.

One marked feature is the large proportion of oily matter, similar in character to cream. This fat, combined with other elements, give them a very high food value. Some physiologists claim that they are more nourishing than meat and butter combined. They have not been considered, generally, as a necessary food, but as an agreeable accessory, with which to round out a bountiful meal. They should be made to serve a very different purpose.

The peanut is perhaps the most important nut product we have in this country; both the production and consumption have grown to enormous proportions. It is not so much used as a food necessity, as it should be, as something to keep the stomach at work, while the rest of the body is seeking recreation. The digestive organs get in their revenge later on. The peanut is too concentrated a food to be eaten alone. When combined with cereals and fruits it forms a healthful diet. It contains about 50 per cent of oil, also considerable gum, which is equal in food value to starch.

The chestnut is a close rival as a popular American nut, but is very different in its composition, containing very little oil or fat. It might be included among the breadstuffs, and is very indigestible in its raw state. The monkey who preferred them roasted, knew what he was about, altho the cat objected to being an "accessory."

The hazel and filberts are rich, sweet nuts but very tough and solid, and most indigestible unless ground. The black walnut is very oily, and hard on weak stomachs. The butternut is not so rich. It has a peculiar but very agreeable flavor, which distinguishes it from all other nuts.

The favorite "fancy nuts," grown for the market, are the English walnut and the almond. The former is rich and oily, but delicately flavored and not so firm in texture as the other nuts. It is used princi-

pally in fancy desserts, salads, cakes and confectionery. The almond is similar in composition to the hickory nut. While it is rich in tissue-forming and heat-producing elements, it contains no starch. Its flavor is very delicate. It is considered valuable in the dietary for Bright's disease.

The pistachio is of great value to the culinary artist for its coloring. The kernel is a bright green, owing to the presence of chlorophyll, or leaf-green.

We must not forget the choicest of our native nuts, the favorite of Gen. Washington, the hickory nut. It is rich in oil, very sweet and palatable; and its delicious flavor, combined with other materials, places it in the front rank.

The Brazil nut is considered the most oily of nuts, altho hard and very compact in texture. The children have a more plebeian name for them; but we knew one small Miss, who, to be polite, changed the term, somewhat.

Sadie was dining out—the story goes. On the table were nuts, called "nigger-toes."

By the little folks, as every child knows.

Quietly sitting, with chatter long pent, She beckoned, on comp'ny manners intent.

To the waiter—of African descent,

And holding her head with a knowing pose,

While her small voice to a shrill treble rose,

She said, "Please pass me the colored toes."

SIMPLE HOME REMEDIES.

BY GENEVA M. SEWELL.

A splendid salve for chapped hands is made by mixing together one cup, equal parts, of fresh lard and mutton tallow and one tablespoon of carbolic acid. This should be thoroughly mixed and put away in tin boxes or wide mouthed bottles. This is simple to make, safe to use and very effective.

Relief for chilblains, and in some cases a permanent cure, is obtained by holding the feet in water as hot as can be borne, adding hot water as the bath cools, keep the feet in this for at least half an hour, then rub thoroly with vaseline on the affected parts and toast well by the fire. Repeat this every time the itching returns. This will give relief in a few moments.

In most cases of neuralgia, hot applications are the quickest and surest remedies. Hot bricks wrapped in wet cloths and applied will often produce almost instantaneous relief. Massage is excellent and there are few families where there is not at least one who possesses sufficient magnetism to ease pain, if only a little attention has been given to the principles of massage treatment. These principles ought to be universally known, for massage treatment is very efficacious in many nervous diseases. Always rub the spine and extremities first, then the affected part. When ease is obtained the sufferer should have complete rest for at least

two days. Rest is worth more than an opiate every time.

A good and simple blood purifier, and one that is a restorative, and at the same time inexpensive, is the well known and equally well hated burdock. Its roots are a most excellent blood purifier. If you can not obtain it growing in the woods or by the roadside it may be bot at any drug store. Make a strong tea of the crushed roots and take a teaspoon three times a day for several weeks. You will soon notice a difference in your appetite and general well being. Sassafras tea is also a very good blood purifier, and a cup taken each morning for breakfast will keep the system toned up and the blood pure. This is especially so in the spring months.

Nervous prostration is the one complaint that is filling our asylums and cemeteries. Do you know that the women who ultimately have the disease are the ones who take too little nourishment? Who ever knew of a fat woman having nervous prostration! The simplest and most helpful remedy known to medical science is plenty of nourishment. A tired woman whose appetite is weak and fitful, who is growing thinner and less elastic, should take nourishment at least six times a day, being careful to take food that is nourishing and that will agree with her. A slice of toast, a cup of hot milk, a soft boiled egg, a cup of hot broth or gruel should be taken as soon after arising in the morning as possible. Any of these may be taken between meals and at bed time. Do not fear "bad dreams" if you take a light lunch before going to bed, for bad dreams are more apt to be caused by an empty stomach than by a full one! Of course, do not eat a piece of mince pie or a dish of hot sausage, but some light and nourishing food will be of great benefit, and save the nerves from extra strain.

SWEEPING THE CARPETS.

BY MRS. N. M. RUSHING.

Almost invariably carpets are swept by too much pressure on the broom. Sometimes the operator, with the handle inclined backward toward her, presses down as a forward thrust is given, and in this way throws the heavier dirt half way across the room, while the light particles are sent whirling about, covering, as it settles, every article of furniture. Another wrong way to sweep a carpet is to move the broom forward with a heavy, downward stroke, by which the material to be removed is pressed into the carpet rather than working gently along on the surface.

The right way to sweep is to incline the handle a little forward, then give a light drawing stroke, allowing the broom to scarcely touch the carpet. Not one-half the weight of the broom should be allowed to press on the carpet, as the dirt is moved forward. Let the dirt be moved and rolled along gently and lightly. If a generous quantity of tea grounds or small bits of wet paper can be spread over the carpet before the sweeping is commenced, all the fine dirt will adhere to the wet materials. The broom should be a good one, having a long elastic brush, then by touching the carpet lightly, it will scarce require the strength of a child to sweep a large parlor in just a few minutes, and the work will be done in a most satisfactory manner.

A NEW HOME-MADE FIRELESS COOKER.

To the busy housewife nothing could be more useful than a fireless cooker and nothing more easily made. We all, in our family are very fond of breakfast foods, if properly cooked, and corn meal mush with milk, but I never had time to cook them properly before breakfast.

I got my idea from the Michigan Farmer, but not having a cheese box, or any other box, I used a salt barrel, and it did just as well. But now I have a three-size compartment cooker and pretty settee combined, for my dining room, evolved from an old-fashioned couch. I removed tapestry and springs. Underneath the springs was a solid foundation. I used inch lumber and made a chest 6x1½ feet, with hinged cover, packed it solidly with hay, tacked old cloth over it to keep the hay in, padded the outside with an old comfortable, then tacked on denim with brass tacks. It looks well, and is a nobby cooker for all kinds of food needing long cooking, like beans, dried corn, mush, cereals, etc.—"Eben-ezer's Wife."

Eight hours' sleep out of every twenty-four is required for building up the body.

The Annoyance Of Flatulence

Many People Are Annoyed With Gas In The Stomach and Intestines.

Flatulence is due to the presence of gas in the stomach and intestines, which often rolls about, producing borborygmi, or rumbling noises in the intestinal system, and causes the victim of this trouble considerable embarrassment, when such noises occur while in company.

An analysis of gas from the stomach shows that it consists to a great extent of nitrogen and carbonic acid. It is therefore probable that some of the gas in the stomach consists simply of air which has been swallowed, altho for the most part, the source of flatulence is the gas given off from the food in the abnormal processes of decomposition.

In cases of chronic gastric catarrh, the secretion of gastric juice in the stomach is deficient, the food is digested slowly, and fermentation occurs with the evolution of gas.

Swallowed air, however, plays a more important part in causing flatulence, or gas in the stomach and intestines than is generally supposed, and while food may be swallowed without carrying air into the stomach with it, fluids, especially those of a tenaceous character, such as pea-soup, appear to carry down a great deal.

Flatulent distension of the intestines occurs when a large amount of gas or air, either swallowed or evolved from the decomposition of food, escapes from the stomach into the intestines thru the pylorus. The enormous distension of the intestines and dilatation of the stomach with gases, and the rapidity with which such flatulence occurs, has long been a puzzle to medical men, and has led some to think that the only possible explanation thereof, is a rapid evolution of gas from the blood.

In the treatment of gas in the stomach and intestines, charcoal is considered by most physicians as the leading and most effective remedy. Carminatives, or medicines, such as peppermint, cardamom, sodium bicarb., etc., which expel the gas from the stomach in large volumes thru the mouth, are resorted to by some people, but their use is disagreeable, and the frequent expulsion of gas thru the mouth, most annoying, and after taking a remedy of this kind, one is compelled to remain out of company the rest of the day on account of the continued belching of air.

STUART'S CHARCOAL LOZENGES do away with the necessity of undergoing the disagreeable experience of belching or expelling stomach gases thru the mouth, by completely absorbing every particle of gas or swallowed air in the stomach, and also in the intestinal system, which prevents colic, and over-distension with accumulated air.

These wonderful lozenges should be used for all cases of flatulence and decomposition of food in the stomach, as well as for bad breath resulting from catarrh, decayed teeth, or stomach trouble.

Purchase a box at once from your druggist for 25 cents, and send us your name and address for free sample. Address F. A. Stuart Company, 200 Stuart Building, Marshall, Mich.

WONDER OIL LAMP FREE

This is a Genuine offer to lamp users, made to introduce the new **INCANDESCENT 100-CANDLE POWER Kerosene Oil Lamp** in every locality. Many times **BRIGHTER, CHEAPER** and **SAFER** than Gasoline, Electricity or ordinary lamps for lighting homes, offices, stores, halls and churches. We ask that you show it to your neighbors. If you accept the proposition we will send you, we will give you a lamp **FREE**. Send your name and name of your nearest express office.

FACTORIES SALES CO.,
Largest Lamp House in America,
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**HARTSHORN
SHADE ROLLERS**
Bear the script name of
Stewart Hartshorn on label.
Get "Improved," no tacks required.
Wood Rollers **Tin Rollers**

RIDER AGENTS WANTED
In each town to ride and exhibit sample 1910 Bicycle. Write for special offer. We ship on approval without a cent deposit, allow 10 DAYS FREE TRIAL and prepay freight on every bicycle. **FACTORY PRICES** on bicycles, tires, logs and learn our unheard of prices and marvelous special offer. Tires, coaster brake rear wheels, lamps, sundries, half prices. **MEAD CYCLE CO., Dept. L. 77, Chicago, Ill.**

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

Home Queries Exchange

Column Conducted By
Elisabeth.

Young Housekeeper:—I have received several recipes for syrup but as they are all very nearly alike I will only print one. Take 12 corn cobs, red ones are best, chop up so strength will come from pith, boil one hour in two quarts of water. Strain and put in about 25 cents worth of brown sugar, boil 20 minutes, or until it thickens properly. I have known syrup made in this way to taste nearly as good as pure maple.—Mrs. I. W.

Mrs. King:—You asked for a yeast formula that will keep from one baking to another. I have used mine for twenty years. Four large potatoes, two quarts cold water, double handful of hops, tied in muslin bag, four tablespoons of flour, two tablespoons of sugar. Peel the potatoes and put with the hop bag in the two quarts of water to boil. When the potatoes are done take them out with a skimmer, leaving the water still boiling, mash them fine and work in the sugar and flour, moisten this gradually with the hot hop tea, stirring it to a smooth paste, when all the tea has been mixed in, let cool. While still slightly warm, add four tablespoons of lively yeast, (this can be started with a yeast cake to begin, after that with the old yeast), let set in an open earthen vessel in a warm place to work, (nothing smaller than a gallon crock). It will take about 24 hours until it ceases to bubble up. After it has worked, can or bottle it. Keep in a cool place and it will keep for a fortnight, or longer, in winter. One-half teacup is all that is needed to start bread sponge if it is good and light, one cup, if not.—Mrs. S. A. P., Cedar Run.

Country Girl:—As your letter is so long I will not print it, but will endeavor to answer the questions you asked me. It is always good form to thank any one for any courtesy shown, be it ever so small, so it would be all right to thank the person who handed you the gift from the tree. It would not be necessary to open the present as soon as you received it, especially if it was in a public place. When a gentleman addresses a married couple, it would depend upon his acquaintance with them, who he spoke to first, if he knew the husband, and not the wife, he would naturally approach the husband first, who would then introduce his wife, or vice versa. If he knew both equally well, he would, of course, shake hands with the lady first. When congratulating a newly married pair, you should wish the bride much happiness in life, or some similar greeting, but you congratulate the groom, the bride is never congratulated. No, the bride is not supposed to make a speech and thank her friends for the presents. This is generally done by writing a short note to each giver, within two weeks after the ceremony. The bride or groom do not show themselves to the guests before the ceremony. The groom, with his best man, can either wait at the foot of the stairs for his bride, or he can descend the stairs with the bridal party in whatever arrangement has been agreed upon. It would, of course, look better for the ladies who sing to either all wear their hats, or all be bareheaded. They should by all means be seated right near the piano, or wherever they are to sing, so as to cause no unnecessary disturbance. Wednesday has long been the popular day of the week for weddings, altho circumstances change the day. For the past two years Saturday has been looked upon as a very stylish day for this event.

Dear Editor:—I have a white fur rug from which the hair has begun to fall. Can anyone tell me thru the Home Queries' Exchange, what I can do to stop it, also how to clean same? It is quite soiled.—Mrs. E. G. B., Branch.

Dear Elisabeth:—Will some one tell me how to make powder for stamping linen, either black or blue?—M. M., Vicksburg.

Dear Editor:—Will some one of your readers tell me a harmless way to remove hair from the face and arms?—Mrs. A. W., Zeeland.

A foul breath is a sign that something is not as it should be. It may come from diseased, decaying or unclean teeth, from catarrhal inflammation of the air passages or from a disordered condition of stomach or bowels, but in any case, the cause should be looked for and removed whenever possible.

HONESTY VS. SURFACE POLITENESS.

I am very glad, indeed, that some one faced the subject with a brave heart, and I hope they will win. I think Dorothy Hudspeth is not acquainted with the true farmer. Let me draw you a picture. While in town the other day—and the town is the county seat of one of Michigan's best counties—I saw three town boys grouped in front of the bakery on the sunny side of the street out of the wind, which was cold and stout. As little girls and women passed across the street, their skirts were whipped about. Little tots' skirts blew up and showed their underwear. This group of boys made remarks, and how they laughed. Remarks and similar actions were repeated every time a woman crossed the street. When a lady of their acquaintance passed, they bowed and tipped hats and had the polish of true gentlemen. But they could not look you in the face squarely when holding a conversation.

The country boys and men that I met had a pleasant and hearty "How-do-you-do, Mrs. ———". These boys had fur caps on, ear tabs tied down. They might have touched their caps, but all did not. The idea that I want to draw out is this, the country boys looked and acted honest, this is the kind of boy the farmer is raising. His actions, his shots, his face are honest. Which of these boys will you choose to handle the finances of your townships, your county, your state, and our Union?

Ithaca.

M. L. P.

CONVENIENT WORK APRON AND DAINTY LINGERIE.

Price, 10 cents each. Waist and skirt patterns are usually separate, making a charge for each, but not if in one piece. Order by number and title of pattern. If for children, give age; for adults, give bust measure for waists, and waist measure for skirts. Be sure to give size when you order. Address orders to Pattern Department, The Michigan Farmer, Detroit, Mich.



8577—Ladies' Apron.—Every woman at some time requires an apron, and the design here shown is adapted for lawn, gingham, or percale. The pockets are ample in size and will prove very handy. They may be omitted. This apron may be developed with simple machine stitching for a finish or with trimming of lace or embroidery. The pattern is cut in seven sizes, small, medium, large, and requires 3½ yards of 36-inch material for the medium size.

8603—Ladies' Corset Cover and Drawers.—A quickly made corset cover model is here illustrated. It is appropriate for lawn, batiste, all-over embroidery, nain-sook or other similar fabrics. The drawers pattern, which is also appropriate for all lingerie materials, is cut without any fullness at the waist. It is lengthened by a ruffle that may be made of the material or embroidery edging. The pattern for these two designs is cut in three sizes, small, medium and large. The medium size requires 3½ yards of 36-inch material.

TO CLEAN FURS.

The fur pieces that are badly soiled can be cleaned by heating salt and corn meal in a dish pan until it is warm to the touch, rubbing this thru the fur. When brushed out, the pieces will be free from dust. If the boa lining is greasy, rub the satin part with a sponge dipped in any liquid cleaner. White fur can be cleaned with flour and salt. Often the satin can be beautifully cleaned by merely covering it with dampened fuller's earth, leaving it until it is dry enough to be brushed off. Do not use water or it will shrivel the hide.

From Bakery to Farm

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

Uneda Biscuit

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

A package costs 5c.

(Never Sold in Bulk)

NATIONAL BISCUIT COMPANY

Elkhart Buggies

are the best made, best grade and easiest riding buggies on earth for the money.

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we have been selling direct and are 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. If you are not satisfied as to style, quality and price you are nothing out.

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Elkhart Carriage & Harness Mfg. Co.
Elkhart, Indiana



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FREE TRAPPERS GUIDE

If not, send for it immediately. We want it in the hands of every Hunter, Trapper and Fur Shipper in America. Our FREE PRICE-LIST. It tells the story of the growth of our great business. Get it before you ship another skin. Located in the center of the Fur Industry, yet not in a large city, our shippers need not help pay the heavy expenses other Houses have. Our World's Newest Medical Discovery BAIT, for all animals. Ask for FREE PRICE-LIST describing them. Get ACQUAINTED WITH US. Send us your address. Do it today. Ask for FREE "GUIDE," PRICE-LIST K. Tags, Blanks, Envelopes. All promptly mailed without any obligation on your part. Your Furs always held separate. You will make money shipping to us. Send a trial shipment and see; AMERICA'S GREATEST RAW-FUR HOUSE.

WEIL BROS. & CO. CAPITAL \$500,000. PAID. FT. WAYNE, IND.

10 CENTS A POUND FOR HOGS

Don't sell your hogs for 6 to 8 cents and buy poorly smoked meat from Meat Trust at 20 to 30 cents. Butcher your hogs, salt and smoke the meat yourself, sell the hams and bacon not needed for your use and make 3 or 4 times what you do now, besides having better meat. The extra profit will pay for what you use. No smokehouse necessary.

USE WRIGHT'S CONDENSED SMOKE Gives the rich aroma and delicate flavor of hickory smoke to the meat, therefore secures highest prices. Keeps the meat sound and sweet indefinitely, and free from insects. Applied with a brush; twice over is sufficient; entirely absorbed; penetrates meat thoroughly. A 75-cent bottle smokes a barrel of meat. Guaranteed and sold under Pure Food Law, Serial No. 541. Beware of imitations; secure the original and genuine. Write for illus. free book, "The New Way."

Wright's Smoke guaranteed and backed by our \$250,000 capital. Money back if you want it. E. H. WRIGHT CO., Ltd., 601 Broadway, Kansas City, Mo.

FREE SAMPLE BOTTLE Ask your druggist for free sample bottle. If he cannot supply you, send 10 cents and names of five who smoke meat. We will send you, prepaid, sample bottle sufficient to smoke 10 lbs. of meat.

When you are Writing to Advertisers please Mention the Michigan Farmer

MARKETS

DETROIT WHOLESALE MARKETS.

January 19, 1910.
Grains and Seeds.

Wheat.—Since last Thursday there has been a steady decline in values, the level on that day being the highest reached in the recent bulge. The reason for the decline is not exactly clear but is generally understood to rest largely with the movement of grain from the hands of large holders. The liquidation following the improved receipts in both the north-west and the southwest so inspired the bears with hope that they have become bold and are hammering hard to break the high prices. The mills are persistent buyers and no doubt will continue so as long as the public demands flour at the present rate. Liverpool is lower. Russian exports, which are very large, are the bearish feature of the European trade. No change exists in the Argentine situation. One year ago we were paying \$1.07 for No. 2 red wheat. Quotations for the week are:

	No. 2	No. 1	May	July
Thursday	1.27	1.27	1.29	1.07
Friday	1.26	1.26	1.27	1.06
Saturday	1.26	1.26	1.27	1.05
Monday	1.25	1.25	1.26	1.04
Tuesday	1.24	1.24	1.25	1.04
Wednesday	1.24	1.24	1.25	1.03

Corn.—While price changes here have not been so wide as in the wheat deal they have followed the same general trend, and the liquidation of heavy holdings, together with the improved movement from the farms following the more moderate weather, have given the trade a bearish tone. The demand is fair. One year ago the price for No. 3 corn was 61½¢ per bu. Quotations are as follows:

	No. 3	Yellow
Thursday	68½	69½
Friday	68½	69½
Saturday	68½	69½
Monday	68	69
Tuesday	67	68
Wednesday	67	68

Oats.—On Tuesday there was a weakening in the bull ranks but up to that date in spite of the declining wheat and corn deals, the makers of values kept advancing the quotations. Heavy holders were not as ready to liquidate as in the other deals, and when any one was of that state of mind shorts stood ready to accept the offerings, which kept the trade firm in spite of the change in wheat and corn. There was a material decrease in the visible supply. One year ago No. 3 oats were quoted at 53¢ per bu. Quotations for the past week are:

	Standard
Thursday	50½
Friday	50½
Saturday	50½
Monday	51
Tuesday	50½
Wednesday	50

Beans.—Jobbers are getting anxious for beans. The supply which came into their hands last fall is about depleted. The crop was large but farmers believe in high values and are holding for \$2 per bushel on the farms. No dealing is being done here and quotations are nominal. They are:

	Cash	March
Thursday	\$2.10	\$2.16
Friday	2.10	2.18
Saturday	2.12	2.20
Monday	2.12	2.20
Tuesday	2.12	2.20
Wednesday	2.12	2.20

Cloverseed.—Values have weakened under the persistent attack of the bears. The volume of trading is moderately large. Prices average below those of last week. Quotations are:

	Prime Spot	Mar.	Alske
Thursday	\$9.00	\$9.10	\$7.90
Friday	9.00	9.10	7.90
Saturday	8.95	9.00	7.90
Monday	8.90	8.95	7.90
Tuesday	8.75	8.85	7.75
Wednesday	8.80	8.85	7.75

Rye.—Market is 2¢ higher, with business quiet. No. 1 is quoted at 83¢ per bushel.

Visible Supply of Grain.

	This week	Last week
Wheat	26,248,000	27,077,000
Corn	10,142,000	10,066,000
Oats	9,542,000	10,367,000
Rye	819,000	795,000
Barley	2,474,000	2,591,000

Flour, Feed, Provisions, Etc.

Flour.—Demand is active at unchanged prices. Quotations as follows:

Clear	\$6.00
Straight	6.05
Patent Michigan	6.25
Ordinary Patent	6.15

Hay and Straw.—Market unchanged. Quotations are: No. 1 timothy, new, \$15.50 @16; No. 2 timothy, \$15@15.50; clover, mixed, \$15@15.50; rye straw, \$7@7.50; wheat and oat straw, \$6.50@7 per ton.

Feed.—Steady at last week's values. Demand good. Carlot prices on track: Bran, \$26 per ton; coarse middlings, \$26; fine middlings, \$30; cracked corn, \$28; coarse corn meal, \$28; corn and oat chop, \$26 per ton.

Potatoes.—Another week has passed with no change in values. The trade is easy. Demand fair and supply sufficient. Michigan grown are selling in car lots at 33@36¢ per bu. in bulk, and in sacks at 30@40¢.

Provisions.—Family pork, \$24.75@25; mess pork, \$24.50; medium clear, \$25@26; pure lard, 14½@15½¢; bacon, 16@16½¢; shoulders, 12½¢; smoked hams, 15¢; picnic hams, 12½¢.

Hides.—No. 1 cured, 10¢; No. 2 green, 9¢; No. 1 cured, 12¢; No. 2 cured, 11¢; No. 1 bulls, 11¢; No. 2 bulls, 10¢; No. 1 green calf, 17¢; No. 2 green calf, 15½¢; No. 1 cured calf, 17¢; No. 2 cured calf, 15½¢;

No. 1 horsehides, \$3.50; No. 2 horsehides, \$2.50; sheepskins, as to wool, 50¢@1.50.

Dairy and Poultry Products.

Butter.—A steady easy tone prevails, with consumption restricted by the high values. Offerings are light. Quotations are: Extra creamery, 36¢ per lb; first do., 35¢; dairy, 25¢; packing stock, 23¢ per lb.

Eggs.—Consumers are asked to pay a cent more for eggs than a week ago. There is little chance for decline before the importation of fresh eggs from the south. Current offerings, cases included, are quoted at 32¢ per doz.

Poultry.—In spite of the advance last week chickens have been in good demand since with prices working to a still higher level. Supplies are limited. Quotations for the week are: Live.—Spring chickens, 14@15¢; hens, 13½@14¢; ducks, 15¢; geese, 14¢; turkeys, 15@18¢. Dressed.—Chickens, 16@17¢; ducks, 17@18¢; geese, 15@16¢; turkeys, 20@22¢ per lb.

Cheese.—Steady. Michigan full cream, 16½¢; York state, 18¢; Limburger, 17¢; schweitzer, 21¢; brick cream, 18¢ per lb.

Calves.—Choice to fancy, 12¢; ordinary, 10@11¢ per lb.

Dressed Hogs.—Light, \$11@11.50 per cwt.; heavy, \$10@10.50.

Fruits and Vegetables.

Cabbage.—Steady. Home-grown, \$1.75 @2 per bbl.

Onions.—Domestic offerings 70@75¢ per bu. Spanish, \$1.35 per crate.

Apples.—Snow, \$5.50@6; Spy, \$2.25@3.50; Baldwin, \$3; common, \$1.50@2.50 per bbl.

Cranberries.—Cape Cod berries selling at \$2@3.50 per bu.

Nuts.—Butternuts, 50@60¢ per bu; walnuts, 50@60¢; shell bark hickory, \$1@1.50.

OTHER MARKETS.

Grand Rapids.

Farmers are getting \$1.80 for white beans, machine screened, and \$2.65 for red kidneys. Wheat and oats are unchanged. Corn has advanced to 67¢. Buckwheat and rye are 2¢ higher, bringing 60@70¢ respectively. There is a seesaw situation in butter, with dairy up 1¢ and creamery off one point. Eggs are higher, fresh stock bringing 30¢ easily, jobbers to country trade. Poultry, with exception of young turkeys, is 1¢ higher. Dressed hogs are worth 11½¢, the some meat dealers say they are buying for 11¢. Clover seed, medium, mammoth and alike, is worth \$9.50, an advance of 50¢. Timothy is unchanged at \$2.25.

Quotations follow:
Grain.—Wheat, \$1.22; oats, 49¢; corn, 67¢; buckwheat, 60¢ per bu; rye, 70¢.
Beans.—White machine screened, \$1.80; red kidneys, \$2.65 basis.

Butter.—Buying prices, Dairy, No. 1, 27¢; creamery in tubs or prints, 34¢ per lb.

Eggs.—Fresh, 30¢.

Apples.—50@75¢.

Vegetables.—Potatoes, 35@40¢; onions, 60¢ per bu; cabbage, 50¢ doz; parsnips, 50@60¢; beets, 50¢ per bu; carrots, 40¢; turnips, 40¢; Hubbard squash, 2¢ lb; celery, 12½¢; parsley, 20¢ doz; vegetable oysters, 25¢ doz.

Hogs.—Dressed, 11½¢.

Live Poultry.—Fowls, 12@13¢; roosters, 9@10¢; spring chickens, 13@14¢; spring ducks, 15@16¢; young geese, 12@13¢; young turkeys, 18@20¢.

Chicago.

Wheat.—No. 2 red, \$1.23@1.25; May, \$1.09; July, \$1.00½.

Corn.—No. 3, 64½@65¢; May, 67½¢; July, 67¼¢.

Oats.—No. 3 white, 48@49¢; May, 47½¢; July, 44¢.

Butter.—Market steady, with improved demand for dairy goods. Creameries, 26 @34¢; dairies, 25@30¢.

Eggs.—High prices are curtailing consumption, and with receipts gradually increasing the market shows an easier tone altho quotations remain unchanged. Prime firsts, 38¢; firsts, 35¢; at mark, cases included, 24½@30½¢ per doz.

Hay and Straw.—Hay market strong with prices showing a general advance. Straw in good demand and 50¢@51 per ton higher. Quotations: Timothy, choice, \$18.50@19; No. 1, \$17.50@18; No. 2 and No. 1 mixed, \$16.50@17; No. 3 and No. 2 mixed, \$13.50@16; rye straw, \$11@12; oat straw, \$9.50@10; wheat, straw, \$8@9.

Potatoes.—Market unusually active, keeping supplies well cleaned up, notwithstanding the fact that receipts are fairly liberal. Prices have advanced 2¢ the past week. Choice to fancy quoted at 50@52¢ per bu; fair to good, 45@48¢.

Beans.—Firm. Choice hand-picked, \$2.18@2.20 per bu; fair to good, \$2.10@2.15; red kidneys, \$2.25@2.90.

New York.

Butter.—Market steady and firm. Western factory firsts, 24@25¢; creamery specials, 36¢.

Eggs.—Prices higher. Market strong. Western firsts to extras, 40@42¢; seconds, 30@39¢; fancy refrigerator stock, 25½ @28¢.

Poultry.—Dressed, firm. Western chickens, broilers, 15@23¢; fowls, 14@17½¢; turkeys, 22@25¢.

Boston.

Wool.—Jobbers here are complaining that the prices asked by western growers for growing fleeces are excessive, but the producer appears unwilling to contract for less, so that the complaints avail nothing except to delay contractual relations between sellers and buyers. The earliness at which the agents are getting into the field indicates that the 1910 clip will move quickly to replenish the bins that are now nearly empty. Quotations for the leading grades are: Ohio and Pennsylvania fleeces—No. 1 washed, 40@41¢; delaine washed, 39@40¢; XX, 37¢; fine unmerchantable, 31¢; half blood combing, 36@37¢; three-eighths combing, 36@37¢; quarter blood combing, 35¢; half, three-eighths and quarter clothing, 28@30¢; delaine unwashed, 32¢; fine unwashed, 27@28¢. Michigan, Wisconsin and New York fleeces—Fine unwashed, 25@26¢; delaine

unwashed, 31@32¢; half blood unwashed, 35@36¢. Kentucky, Indiana and Missouri—Three-eighths blood, 34¢; quarter blood, 32@33¢.

Elgin.

Butter.—Market firm at 36¢ per lb., which is last week's price. Sales for the week aggregated 544,400 lbs., compared with 566,300 lbs. last week.

THE LIVE STOCK MARKETS.

Buffalo.

January 17, 1910.
(Special report by Dunning & Stevens, New York Central Stock Yards, East Buffalo, N. Y.)

Receipts of sale stock here today as follows: Cattle, 150 loads; hogs, 15,000; sheep and lambs, 20,000; calves, 900.

The cattle market started off today at about steady prices but died out and cattle arriving late had to be sacrificed. The biggest decline was on the half fat kind. There will be quite a few loads going over unsold. There were very few stockers on the market today and the demand for them was very light. Good fresh cows and springers sold \$3 per head higher, other kinds steady. We quote prices today as follows:

Best export steers, \$6.30@6.65; best 1,200 to 1,300-lb. shipping steers, \$6@6.25; best 1,100 to 1,200-lb. do., \$5.80@6; medium 1,050 to 1,100-lb. butcher steers, \$5@5.50; light butcher steers, \$5@5.25; best fat cows, \$4.75@5.25; fair to good do., \$4.25@4.50; trimmers, \$2.50@2.75; best fat heifers (few fancy 6¢), \$5.25@5.50; fair to good do., \$4.50@4.75; common do., \$3.75@4; best feeding steers, 950 to 1,000 lbs., \$4.40@4.65; best feeding steers, 800 to 900 lbs., \$4.25@4.40; 700 to 750-lb. dehorned stockers, \$3.75@4; 600 to 650-lb. do., \$3.25@3.50; best bulls, \$5.25@5.75; bologna bulls, \$3.75@4.25; stock bulls, \$3.25@3.50; best fresh cows and springers, \$5@6; fair to good do., \$2.50@4.5; common do., \$2@3.

The hog market today opened steady to 5¢ lower than Saturday and closed about steady at opening prices. About everything is sold that got yarded in time for the market.

We quote: Mixed, medium and heavy, \$8.90@9.05; best yorkers, \$8.90@9; light yorkers and pigs, \$8.90@8.95; roughs, \$8.25@8.35; stags, \$6.75@7.50.

The lamb market today was very slow, the bulk of the best lambs selling from \$8.75@8.80 early and closing at \$8.65@8.75. We look for about steady prices the balance of the week.

Best lambs, \$8.75@8.80; fair to good, \$8.50@8.70; culls, \$7.75@8.25; skin culls, \$6@7; yearlings, \$7.75@8; wethers, \$6@6.50; ewes, \$5.50@6; cull sheep, \$3.50@5; best calves, \$10.50@11; fair to good do., \$8@9.50; heavy, \$4@5.

Chicago.

January 17, 1910.
Cattle. Hogs. Sheep.
Received today 29,000 34,000 22,000
Same day last year 31,276 48,548 20,828
Received last week 63,908 152,294 81,187
Same week last year 77,150 212,677 83,924

Cattle receipts last week underwent large gains in volume, large numbers that were kept back by big snow storms a week earlier showing up, and on Tuesday 16,058 head arrived, being larger than ever arrived on Tuesday, except during the range shipping season. Early in the week prices had sharp declines, despite good local and shipping buying orders, but later in the week the decline was recovered, supplies becoming small. Beef steers sold during the week chiefly at \$5.25@6.60, the greater part of the offerings being medium in quality, with the poorer light-weight steers selling at \$4.15 @5.15, while the choicer lots of weighty finished steers found buyers at \$7@8.10. Plain short-fed offerings went largely at \$5.75@6.50, and there was a good demand for butcher stock, cows and heifers bringing \$3.15@6.10 and canners and cutters \$2@3.10. Bulls were active and higher than heretofore, selling at \$3@5.40, while calves shared in the upward movement, selling at \$3.50@5.10 per 100 lbs. The stocker and feeder trade was alternately dull and active, firmness being restricted to good cattle, with sales of feeders at \$4.25@5.40 and stockers at \$3@4.40. Much of the time lately snow storms and the unsatisfactory movement of railroad stock trains tended to check the demand for cattle to fatten. Milkens and springers were in moderate supply and fair local and eastern demand at firm prices, sales ranging at \$25@65 per head. Beef cattle are still selling higher as a rule than in most former years, but dearth of corn discourages many stockmen from feeding stock, and finished beefs promise to sell high for months to come. Corn on Illinois farms has been selling at 59@60¢. Another week opened today with liberal receipts and steers slow and largely 10@15¢ lower.

Hogs arrived last week much more freely than during the previous week, when stock trains were delayed by bad weather, the railroads having frequently refused to accept stock. On Monday the receipts were unusually large, reaching 43,497 head, and for three days in succession there were rapid declines that landed the best hogs at \$8.65, a fall of 40¢ from the high point of the previous week, which was also the best time since 1882. Then there was a lively rally on much smaller receipts, stockmen holding back their hogs, and extremely high prices were recorded once more. There has been an active general demand pretty much all the time, altho buyers were never averse to forcing declines in prices, but it was evident that much lower values meant smaller future supplies. During the past week there was a renewal of snow storms, and this made further checks in country shipments. Hogs cost \$8 per 100 lbs. in the country, and when they average below \$8.75 in the Chicago market they will not come forward freely, country shippers requiring a larger margin at this season than in warm weather. On Friday prime hogs advanced to \$9.05 again, the high figure of the season, but declined sharply Saturday. Today trade

was good at steady prices, hogs selling at \$8.40@8.87½, best light weights going at \$8.75. The average weight of last week's receipts was only 208 lbs.

Sheep and lambs were marketed more freely for several days last week, the weather conditions at first being more favorable for moving stock, and altho there was usually a good local demand, buyers were able to put prices on a lower level, particularly for lambs, which comprised a large proportion of the offerings. Besides, lambs had been advanced a week earlier to such almost unprecedented figures that it was a foregone conclusion that the trade would not continue for any length of time to follow the raise. Both sheep and lambs, even those of ordinary quality, have continued to sell much above the prices paid in most former years in midwinter, and this condition of things promises to continue, as much less feeding is reported in most sections than in recent years. Feeding western lambs have not weakened with mutton grades, but sold higher than ever under small offerings, buyers paying \$7@8. Today's market was steady for sheep and 10@15¢ lower for lambs, the latter selling at \$6@8.75, while wethers were salable at \$5.25@6.10, ewes at \$3.25@5.90, bucks and stags at \$3.50@5 and yearlings at \$7@8.

Horses have been marketed this month much more freely, and trade has undergone marked improvement, with prices showing much more stability, altho during the last few days prices have weakened and ruled unevenly \$5@10 per head lower for medium grade horses. This depression is probably merely temporary, being due to delays in shipping stock to eastern points on account of the frequent big snow storms. At the same time the receipts have run much short in volume of those for a year ago. Big drafters have been selling at \$170@275, not many going higher than \$225, and the bulk clearing for \$190@210. Ice companies have been free buyers of late at \$160@225, and farm chunks weighing 1,200 to 1,400 lbs. were fairly active at \$125@175, mares being preferred as a rule. Loggers and feeders sold fairly at \$170@225, and small southern chunks were wanted at \$65@125 and up to \$150 for fair light drivers. Better drivers were in limited demand at \$160 @300. F.

LIVE STOCK NOTES.

Bulls have been selling extremely well in the Chicago and other markets of the country for some time past, a strong demand resulting in higher prices than usual, but the good values fail to bring out larger supplies from the country. Bologna bulls are naturally the best sellers, as the sausage requirements at this season of the year are especially large, and finishing bulls for the market will pay well.

There is an unusually large demand for choice veal in the markets of the country, and the best light-weight calves are selling extremely high, recent sales having been made up to \$10 per 100 lbs. at the Chicago stock yards. This is the high record price, but the plain light and common heavy calves are slow of sale at no better prices than have been paid for some time.

An Iowa stock feeder had 36 head of cattle that averaged 1,452 lbs. on the Chicago market recently that brot \$7.75 per 100 lbs. They were grade Herefords and branded western range steers, and were well wintered and grazed during the summer months. Altho the cattle had been on full feed only 100 days, they sold within 25 cents of the highest price paid for steers.

Word comes from Des Moines that more farmers than ever before are feeding cattle in their barn yards on grain and hay, most of them not having enough corn husked and in the cribs to feed stock thru the first two months of the year. This is owing to the fact that so many fields are not yet husked out, many corn fields being under deep snow, with much corn ungathered. All indications are that slow progress is going to be made in husking the corn, and there is a slim prospect of an early free movement of corn.

James Hogan, of Lenawee county, Michigan, recently stated that there were one-third less lambs fed in that region of the state than a year ago, while the decrease in other sections ran from 25 to 40 per cent. He gave as the cause of this falling off the dearthness of feeding lambs, hay and grain.

This winter has been an unusually severe one thus far, it having started in much earlier than in recent years, and word comes from various sections that farmers have much of their corn in the fields under snow. Stock feeding has been greatly inconvenienced by lack of corn in many instances, and the extreme severity of the weather has made it more expensive to fatten stock, as more feed was required to keep up the animal warmth. It is largely owing to these things that there has been such a widespread marketing of partly fattened cattle, combined with the unusually high price of corn, recent sales having been made in the Chicago market 7¢ per bushel higher than a year ago.

The railroads have been greatly hindered in moving freight this winter by the extremely cold weather and the frequent heavy snow storms, followed recently by rain falling on the snow, and then freezing, making a hard crust. Moving live stock, as well as farm produce, such as eggs, vegetables, potatoes and other perishable goods, was slow and uncertain, and country shippers could not tell when their consignments would reach their destinations. Owners in such a condition of things were not inclined to take chances of having their goods arrive in a frozen condition, and the marketings fell off so much that eggs, potatoes, butter and various other staples advanced sharply in prices. It was a fine chance for owners of eggs, butter, fish, etc., in cold storage warehouses, and they have been removing summer stored goods at big profits.

The total western packing since November 1 amounts to 5,440,000 hogs, a decrease of 1,665,000 hogs compared with a year ago.

THIS IS THE FIRST EDITION.

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

DETROIT LIVE STOCK MARKETS.

Thursday's Markets.

January 13, 1910.

Cattle.

Receipts, 769. Market active and strong to 10c higher than last week's close. We quote: Best steers and heifers, \$5.50@6; steers and heifers, 1,000 to 1,200, \$5.25@5.75; steers and heifers, 800 to 1,000, \$4.75@5.10; steers and heifers that are fat, 500 to 700, \$3.50@4.25; choice fat cows, \$4@4.75; good fat cows, \$3.50@3.85; common cows, \$2.50@3.25; canners, \$2@2.50; choice heavy bulls, \$4.50@5; fair to good bolognas, bulls, \$3.75@4.25; stock bulls, \$3.50; choice feeding steers, 800 to 1,000, \$4.50@4.65; fair feeding steers, 800 to 1,000, \$4@4.25; choice stockers, 500 to 700, \$3.75@4; fair stockers, 500 to 700, \$3.25@3.50; stock heifers, \$3@3.25; milkers, large, young, medium age, \$4@5; common milkers, \$2@3.50.

Bishop, B. & H. sold Mich. B. Co. 2 bulls av 1,670 at \$4.40; to Sullivan P. Co. 10 cows av 997 at \$3.40, 4 do av 911 at \$2.50, 1 do weighing 800 at \$2.75, 7 heifers av 683 at \$4.50, 1 do weighing 650 at \$4.50; to Goose 16 butchers av 390 at \$3; to Bresnahan 6 do av 500 at \$3.25; to Hammond, S. & Co. 8 cows av 757 at \$3.50; to Heinrich 12 steers av 1,020 at \$5.60, 3 bulls av 660 at \$3.60; to Hammond, S. & Co. 2 bulls av 1,550 at \$4.75; to Kamman, 12 butchers av 635 at \$4, 3 cows av 810 at \$3, 11 butchers av 527 at \$3.65; to Breitenback Bros. 1 bull weighing 1,080 at \$4.25, 3 do av 913 at \$3, 5 butchers av 965 at \$3.60; to Regan 8 do av 625 at \$3.80; to Hammond, S. & Co. 2 cows av 900 at \$2.50, 1 do weighing 790 at \$3.25, 1 bull weighing 1,070 at \$4.75, 1 heifer weighing 1,000 at \$5; to Newton B. Co. 14 do av 1,077 at \$5.90; to Lingeman 8 do av 1,021 at \$5.40; to Mich. B. Co. 2 bulls av 1,290 at \$4.50, 3 cows av 850 at \$3, 6 butchers av 980 at \$4; to Sullivan P. Co. 2 bulls av 1,200 at \$4.25, 2 cows av 1,100 at \$4.25, 3 do av 1,056 at \$3.50, 2 do av 1,100 at \$4.25; to Breitenback Bros. 12 butchers av 666 at \$4.40, 7 do av 883 at \$5; to Gerish 9 steers av 990 at \$5.85; to Sullivan P. Co. 11 butchers av 680 at \$4.25; to Fitzpatrick Bros. 2 cows av 990 at \$3.50, 2 do av 850 at \$3.

Roe Com. Co. sold Fromm 12 butchers av 650 at \$3.90; to Bresnahan 1 bull weighing 1,250 at \$4.50, 3 canners av 883 at \$2.50; to Newton B. Co. 2 cows av 810 at \$3.50, 2 do av 950 at \$3.50, 1 steer weighing 1,230 at \$4, 2 cows av 1,075 at \$3, 3 heifers av 783 at \$4.50, 9 butchers av 680 at \$4.15; to Mich. B. Co. 7 do av 970 at \$3.50, 12 do av 783 at \$4.75; to Sullivan P. Co. 1 bull weighing 1,750 at \$4.50.

Spicer & R. sold Mich. B. Co. 11 butchers av 712 at \$3.95; to Lingeman 7 cows av 940 at \$2.85; to Fromm 2 heifers av 535 at \$3.25; to Rehms 5 cows av 1,000 at \$4, 4 butchers av 655 at \$3.80; to Thompson 3 do av 510 at \$3.55; to Bordine 2 cows av 860 at \$3.25.

Sandall & T. sold Sullivan P. Co. 2 oxen av 1,565 at \$4.25, 1 bull weighing 1,750 at \$5.

Merritt sold same 1 do weighing 1,300 at \$4.25, 2 cows av 925 at \$3.

Groff sold Lingeman 6 butchers av \$30 at \$3.20, 1 heifer weighing 800 at \$5.

Healey sold Mich. B. Co. 5 cows av 1,146 at \$4.

Sharp sold same 3 heifers av 1,070 at \$5.50, 8 steers av 843 at \$5.

Sandall & T. sold Kamman 4 cows av 937 at \$3.40, 2 heifers av 575 at \$4, 11 butchers av 860 at \$4.65.

Same sold Hammond, S. & Co. 2 cows av 925 at \$2.50.

Veal Calves.

Receipts, 458. Market 25c lower than last week; steady with Wednesday. Best, \$9@9.50; common, dull at \$5@8; milch cows and springers steady.

Bishop, B. & H. sold Strauss & A. 3 av 125 at \$6.50, 9 av 150 at \$9.50, 8 av 130 at \$9, 2 av 120 at \$6, 15 av 140 at \$9.50, 1 weighing 100 at \$6, 4 av 130 at \$9, 5 av 105 at \$6, 3 av 130 at \$9, 10 av 116 at \$8.50; to Sullivan P. Co. 2 av 160 at \$9.50; to Nagle P. Co. 8 av 120 at \$8.25; to Parker, W. & Co. 9 av 140 at \$8.50, 8 av 135 at \$8.50; to Nagle P. Co. 8 av 118 at \$7.50, 9 av 150 at \$9, 3 av 100 at \$6, 3 av 155 at \$9, 13 av 135 at \$9, 13 av 130 at \$8, 2 av 135 at \$9.50, 3 av 120 at \$9.50; to Hammond, S. & Co. 9 av 150 at \$9.50, 3 av 140 at \$9.

Merritt sold Sullivan P. Co. 3 av 100 at \$7, 1 weighing 160 at \$9.

Leach sold Newton B. Co. 24 av 150 at \$9.65.

Berger & W. sold same 1 weighing 120 at \$7, 9 av 150 at \$9.

Haley & M. sold Mich. B. Co. 4 av 120 at \$8.75; to Strauss & A. 15 av 140 at \$8.25.

Roe Com. Co. sold Nagle P. Co. 9 av 140 at \$9.50; to Parker, W. & Co. 18 av 130 at \$7.50, 4 av 125 at \$7.50.

Boyle sold Breitenback Bros. 5 av 165 at \$8.50.

Weeks sold Strauss & A. 1 weighing 90 at \$4, 3 av 210 at \$8.

Sandall & T. sold Mich. B. Co. 10 av 119 at \$8.55.

Groff sold Nagle P. Co. 10 av 125 at \$8.75, 1 weighing 270 at \$5.

Sheep and Lambs.

Receipts, 6,587. Market 10c lower than on Wednesday; 10@15c lower than last Thursday.

Best lambs, \$8.25@8.40; fair to good lambs, \$7.25@7.40; light to common lambs, \$6.75@7.15; yearlings, \$6.50; fair to good sheep, \$4.50@5; culs and common, \$3.25@3.75.

Roe Com. Co. sold Nagle P. Co. 77 lambs av 82 at \$8.30, 3 do av 60 at \$7.50, 2 sheep av 90 at \$3.50; to Barlage 7 do av 125 at \$4, 17 lambs av 60 at \$7.50; to Thompson Bros. 29 do av 70 at \$7, 20

sheep av 100 at \$4.10; to Nagle P. Co. 113 lambs av 75 at \$8.10.

Ardner sold Breitenback Bros. 74 lambs av 75 at \$7.50, 131 do av 65 at \$7.25.

Boyle sold same 11 do av 60 at \$7.25, 8 sheep av 80 at \$3.

Spicer & R. sold Mich. B. Co. 53 lambs av 73 at \$8; to Sullivan P. Co. 5 do av 80 at \$8.25; to Thompson Bros. 23 sheep av 85 at \$4.50; to Sullivan P. Co. 2 do av 150 at \$3.75, 8 lambs av 55 at \$7.25.

Wickmann sold Newton B. Co. 85 lambs av 70 at \$8, 10 do av 45 at \$6, 15 sheep av 90 at \$3.75.

Merritt sold Sullivan P. Co. 22 lambs av 60 at \$7.

Youngs sold Nagle P. Co. 235 lambs av 75 at \$8.30, 22 do av 50 at \$7.

Harger & A. sold same 83 do av 77 at \$8.10.

Buck & W. sold same 156 do av 78 at \$8.25, 31 do av 55 at \$7, 20 sheep av 95 at \$3.

Bennett & S. sold same 198 lambs av 90 at \$8.40.

Sandall & T. sold Mich. B. Co. 13 sheep av 110 at \$3.50, 22 lambs av 68 at \$7.50.

Hogs.

Receipts, 3,471. Market 20c higher than Wednesday and 10@15c lower than last Thursday.

Range of prices: Light to good butchers, \$8.50@8.70; pigs, \$8.25@8.40; light yorkers, \$8.40@8.50; stags, 1/2 off.

Bishop, B. & H. sold Parker, W. & Co. 424 av 170 at \$8.65, 754 av 190 at \$8.70, 65 av 150 at \$8.60, 111 av 210 at \$8.75.

Sundry shippers sold same 360 av 170 at \$8.65.

Spicer & R. sold Hammond, S. & Co. 161 av 150 at \$8.60, 126 av 170 at \$8.65.

Roe Com. Co. sold same 320 av 190 at \$8.70, 65 av 170 at \$8.65.

Haley & M. sold same 160 av 180 at \$8.70, 140 av 175 at \$8.65, 85 av 150 at \$8.50.

Roe Com. Co. sold Sullivan P. Co. 78 av 160 at \$8.45.

Sundry shippers sold same 275 av 200 at \$8.70, 31 pigs av 120 at \$8.35, 29 av 135 at \$8.40.

Friday's Market.

January 14, 1910.

Cattle.

The run of cattle at the Michigan Central yards Friday was light, and the market was strong at Thursday's advance on all grades, the Sullivan Packing Company topping the market at \$6 a hundred for 12 good steers averaging 1,150. Milch cows and springers steady. The yards and railroad entrances were so blocked with snow that great difficulty was experienced in getting the stock to the chutes.

We quote: Best steers and heifers, \$5@6; steers and heifers, 1,000 to 1,200, \$5.25@5.75; steers and heifers, 800 to 1,000, \$4.75@5.10; steers and heifers that are fat, 500 to 700, \$3.50@4.25; choice fat cows, \$4@4.75; good fat cows, \$3.50@3.85; common cows, \$2.50@3.25; canners, \$2@2.50; choice heavy bulls, \$4.50@5; fair to good bolognas, bulls, \$3.75@4.25; stock bulls, \$3.50; choice feeding steers, 800 to 1,000, \$4.50@4.65; fair feeding steers, 800 to 1,000, \$4@4.25; choice stockers, 500 to 700, \$3.75@4; fair stockers, 500 to 700, \$3.25@3.50; stock heifers, \$3@3.25; milkers, large, young, medium age, \$4@5; common milkers, \$2@3.50.

Bishop, B. & H. sold Sullivan P. Co. 2 cows av 730 at \$2.75, 7 butchers av 1,043 at \$4.50, 5 steers av 1,176 at \$6, 7 do av 1,110 at \$6, 2 cows av 1,165 at \$4, 2 do av 1,040 at \$3.50.

Spicer & R. sold same 3 butchers av 606 at \$2.25, 1 bull weighing 1,000 at \$4, 1 steer weighing 830 at \$5.25.

Bishop, B. & H. sold Fitzpatrick 2 cows av 790 at \$2.75, 8 butchers av 739 at \$3.75.

Same sold Thompson 3 cows av 933 at \$3, 2 do av 975 at \$2.50, 6 do av 875 at \$4.50.

Same sold Cooke 4 butchers av 775 at \$4.50.

Veal Calves.

The veal calf trade, quality considered, was about steady with Thursday, altho nothing was good enough to bring over \$9.25. The receipts in this department have been very common of late. Best grades, \$9@9.25; common and mediums, \$5@8.50.

Roe Com. Co. sold Sullivan P. Co. 3 av 165 at \$6, 4 av 180 at \$9, 5 av 145 at \$8.50.

Bishop, B. & H. sold same 1 weighing 130 at \$8.25.

Same sold Nagle P. Co. 4 av 105 at \$7.25, 7 av 145 at \$9.25, 11 av 130 at \$8.75, 16 av 160 at \$9.25, 20 av 135 at \$9, 4 av 125 at \$6, 15 av 130 at \$8.75, 2 av 140 at \$8.75, 3 av 150 at \$6.50, 6 av 105 at \$6, 9 av 140 at \$9.

Sheep and Lambs.

The sheep and lamb trade was about steady with Thursday, altho nothing brot over \$8.25, the quality being on the common order.

Best lambs, \$8@8.25; fair to good lambs, \$7.25@7.50; light to common lambs, \$6.75@7; yearlings, \$6.50; fair to good sheep, \$4@4.75; culs and common, \$3.25@3.50.

Bishop, B. & H. sold Nagle P. Co. 14 lambs av 50 at \$6, 42 do av 80 at \$8, 30 do av 65 at \$7.50, 12 do av 60 at \$6.50, 23 do av 85 at \$8, 18 do av 55 at \$6.50, 24 do av 80 at \$8, 13 do av 65 at \$7.50, 23 do av 55 at \$7, 35 do av 80 at \$7.

Spicer & R. sold same 42 lambs av 80 at \$8.

Downey sold same 36 do av 80 at \$8.

Spicer & R. sold same 42 do av \$3 at \$8.

Bishop, B. & H. sold Sullivan P. Co. 76 lambs av 65 at \$7.25, 14 do av 55 at \$6, 23 do av 85 at \$8.25, 23 do av 82 at \$8.15, 10 do av 54 at \$6.50.

Roe Com. Co. sold same 26 do av 55 at \$6.50.

Spicer & R. sold Mich. B. Co. 62 sheep av 82 at \$4.40.

Bishop, B. & H. sold same 96 lambs av 65 at \$7.25, 15 do av 63 at \$7.

Same sold Snyder 54 lambs av 80 at \$8.25.

Hogs.

In the hog department the trade was active and 10@15c higher than on Thursday, the good ones bringing \$8.90.

Light to good butchers, \$8.70@8.90; pigs, \$8.25@8.50; light yorkers, \$8.50@8.60; stags, 1/2 off.

Roe Com. Co. sold Hammond, S. & Co. 95 hogs av 210 at \$8.90.

Bishop, B. & H. sold same 88 av 195 at \$8.90, 73 av 180 at \$8.85.



THERE'S no doubt about it. Thousands of farmers have proved and are proving every day that one of the simple, dependable IHC gasoline engines makes and saves more money for them than the best hired man they can get.

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You can make your IHC engine work when and where and as long as you please. It is something you can own. It is all yours. You don't have to talk to it about getting up early or argue about quitting time. It is always ready and willing—just as well pump a tank full of water after dark as in the daytime. It is ready to start the saw, pump or any other machine going before daylight, if you are.

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HOME AND YOUTH

A SONG OF TODAY.

BY MILDRED M. NORTH.

Dream not of the triumphs tomorrow
Shall witness, but conquer today;
Be noble today and tomorrow
Will find you more fit for the fray.

Sigh not o'er the yesterdays vanished,
Nor idly old failures bemoan,
Begin the today that has risen
Not girt in thine own strength alone.

Each day is another commencement,
Each day is the world touched anew;
You may have fainted and fallen,
Arise! This today is for you.

Dream not of the laurels tomorrow's
Endeavor shall place on your brow.
Awake! Seek your crown and obtain it
In all that is certain, the Now.

Tomorrow is only a phantom
To lure you to further delay,
And always it shines in the distance
And melts to another today.

So arise! for the conflict be ready!
Your armor make bright for the fray!
"Be honest, be brave and true-hearted,"
Be noble, be noble today!!

UNCLE BIJE BEVERLY'S EXPERIENCE AS A SHOPPER.

BY ELLA M. ROGERS.

Part II.

As I walked away from the postoffice, I was still considerin' the subject of shoppin'.

I wondered if there mightn't be some simple, easy, labor savin' way to shop, that I didn't know about.

In that same store where I'd met with such crushin' defeat, I see women, an' not very rugged lookin' ones either, goin' out the door with big parcels in their arms an' a look of vict'ry on their faces. It galled me, this bein' so outdone by women. Perhaps they had some little turn of the wrist, unknown to me as yet.

If tha' was an easy way to do it, I wanted to get on to it, on 'count of obeyin' the doctor's orders. But I was that determined that, even if it had to be done jes' by main strength, I was goin' to shop anyway, doctor or no doctor.

I found another nice big store, braced myself up fer the ordeal I thot I was goin' to undergo, an' went in.

I didn't ask fer any directions from the floorwalker this time. I jes' thot I'd go around a little, an' mebbly I could spy a real purty piece of silk hung up somewhere, that would answer fer the dress. Then I'd tell some saleslady to measure me off so many yards, without hevin' to supplicate her to show me any goods. You see I was tryin' to save my strength.

After a little, I come up to a counter where a lot of pieces of silk was piled up, an' the girl was cuttin' off a length fer a lady.

"Bije Beverly," I said to myself, "now's your chance. Jes' slide in here an' get a look at these goods before they get put back."

The girl see me standin' there, an' she spoke up awful pleasant an' said, "Good morning. I hope there's something I can show you this morning."

"Well," I began, "I'm thinkin' of buyin' a silk dress fer Lovisey, my wife, an' I thot mebbly you wouldn't mind my lookin' at a few of these pieces before you put em' away."

"Why certainly not! Look at them all you want to." Then she went on, "A nice silk is a little nicer than any other kind of a dress, an' it makes a most acceptable present. I'm sure your wife will be delighted."

This girl had such a pleasant way with her. Now, if I'd a' said a woosted dress, she'd a' said somethin' about a good wool dress bein' awful serviceable, an' not mentioned silk at all. She had what some people call tack.

"Now these here on this counter," she told me, "are mostly short pieces and fancy waistings; but if you want a whole dress, just let me show you our line of dress silks. We have a very strong line and I think we can please you."

Yes, sir, she actuly wanted to take down those goods that was all piled up nice, back there on the shelves, an' show 'em to me! I was that astonished I could have been knocked over by one of those little down feathers you see growin' on a young duck.

Then she began to get out the goods. First she took down a black, an' I declare it was the handsomest piece of black silk I ever see in my life. Then she showed me browns, an' dark blues, an' light blues, an' some amazin' purty greens an' one piece I'd call a plum color, an'

several pieces of figgered silk, an' what I was most int'rusted in of all, some reds—only they was purty dark reds, but they was handsome.

An' she had a way of geth'r'in' up the silk in her hands jes' as if she was fond of it, an' holdin' it up fer me to see.

"Well," I said, "I don't jes know which one to take. I guess I don't want black, tho' that's a mighty fine piece, an' looks as if it would wear well; but I don't want Lovisey to put on black, not while I'm a' livin'."

Then she laffed, kind o' soft like, an' I see she had some sense of youmor.

This girl wa'n't no better lookin' than those girls in that other store, but she seemed more kind o' human, an' she paid clost attention to what I was sayin'. Before I knew what I was doin', I was runnin' on to her, tellin' her all about Lovisey, an' my son an' his wife, an' my daughter Molly, an' the gran' children, an' my stock farm in Illinois, an' I don't know how much else. But land! It was easy to talk to that girl! She wa'n't no gramophone.

Then she took out another piece of goods, an' she laffed a little, an' said, "If you don't want black, mebbly you'd like to look at somethin' in a bright red. An' she held before me, all gethered up in those little hands of hers, a piece of flamin' red, jes' the most beautiful color I ever see or ever expect to see.

"Well," I told her right away, "them dark reds was purty, but they ain't in it with this one. You jes' measure me off enough of this fer a dress. Put in plenty."

I see she looked scairt jes' a little, as if she'd made some mistake in showin' me this piece at all, tho' I couldn't see no reason fer it, unless they was afraid, if they sold that piece off, they'd never be able to get holt of another piece that 'ud equal it.

"Now Mr. Beverly," she said, (how she come to know my name was Beverly I don't know), "now, Mr. Beverly, if you aren't in too much of a hurry, I want to show you just one piece more, before I cut your goods off the scarlet piece. If you don't like this I'm going to show you, I won't say a word to urge you to take it, and I'll be very glad to sell you the dress from the scarlet, or from any one of the other pieces."

She took down a piece of a kind of soft silvery gray, purty enough when you come to look at it, but you'd never notice it at all along with them reds an' greens.

Next she stepped over to the millin'ry department, an' brot back with her a lady with gray hair, almost white, an' dark eyes, an' kind o' fair an' fresh complected, like my wife. In fact, this lady looked enough like Lovisey to be an own sister.

"Now, Miss Austin," the little lady began, "just let me drape this silk around your shoulders, please." An' she fixed it round her. "Now it just needs a little white at the throat," an' she got some kind of a lace business an' put up next to Miss Austin's neck. "Now, Mr. Beverly, you can see the effect."

Well, I jes' could. That gray had looked so quiet an' uncomplainin' in the piece that I was astonished when I see how dainty, an' delikit, an' dressy it would look made up.

"I wonder if that would be better than the red," I said.

"Well, Mr. Beverly, you must be the judge." Then she slipped the gray silk off Miss Austin an' began drapin' the bright red onto her.

I could see in less'n a minute that the red wouldn't make up to look like anythin' Lovisey ever wears.

Then Miss Austin went back to her hats, an' that saleslady an' I settled down to the job of choosin' between the two pieces.

"Do you think the gray might be better'n the red?" I asked her.

Before she answered she got me to tell her somethin' what my wife's taste is, an' what she likes, an' how she usuly dresses.

"Well," I told her, "Lovisey dressed jes' like a reg'lar woman. She don't wear no uniform—she ain't no trained nurse nor deaconess. An' she wears whatever's a goin', if it soots her, an' is becomin'. She ain't a Dunkard nor an Ahmish, so she ain't obliged to dress jes' the same way one year right after another. An' she ain't a Hook an' Eye Dutch—"

Then the saleslady laffed.

"I know the Dunkards and the Ahmish, but what are the Hook and Eye Dutch?"

"Well, in our neighborhood at home tha' is three or four famblies that come from somewhere in Injianny, an' they hev some religious scroople agin' the women hevin' any buttons on their clothes. So ev'ry-

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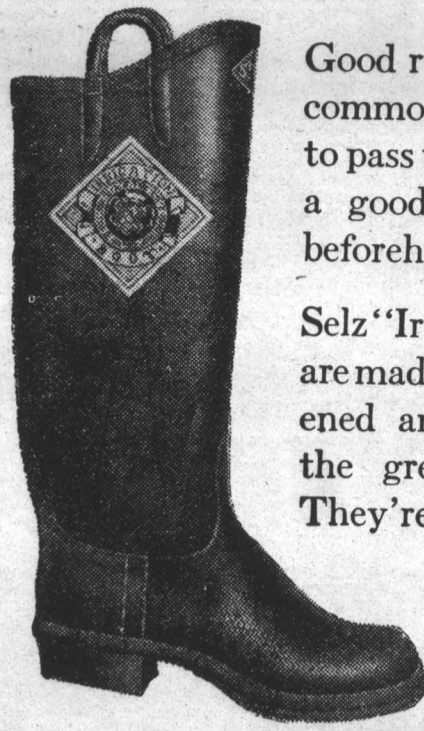
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body's got to callin' 'em Hook an' Eye Dutch."

"So your wife isn't Dunkard, nor Ah-mish, nor Hook an' Eye Dutch?" Here she laughed again.

"Nope, Lovisey's a Baptist, 'bout the most consistent member tha' is in the church, I sometimes think."

"Does she like things that are bright and showy, or does she prefer quiet colors?"

"Oh, Lovisey has awful good taste. She likes nice things, but she never dresses conspic'vous. If you think that scarlet red would be conspic'vous, I'd better not take it. It's an awful purty thing, tho."

She see I hated to give up the red piece, an' she perceeded awful gentle like.

"Now that shade makes up very pretty for a child, and it might do for an occasional dress for a young lady, but for an elderly woman—"

Then it come over me all of a flash jes' what I'd do. "What would you think," I said, "of getting a piece of the red fer my dahtter's little girl a dress, an' then take the gray fer Lovisey?"

"You couldn't do better than that," she said.

There was that about that girl, all her argymunts was convincin'. An' she had that way of layin' things right out before you an' eloocidin' matters—I shouldn't mind takin' a full course in cuttin' an' fittin' an' dress makin' under that girl.

She said four yards of the red would be enough fer such a tiny girl as Molly's little Loueez, but I told her to make it 4½. Then we decided on how much she should cut off from the silver gray piece, fer Lovisey. I told her to give me a good full pattern, I didn't want any skimpin'. She said how much would be very ample an' then I d'ected her to put in two yards more, like as not some of Lovisey's friends would want a piece of it fer their crazy quilts.

I could see fer myself, now that I come to think about it, that the gray was a good deal nicer fer Lovisey, an' why the saleslady had looked so scairt when I told her to cut off the bright red. She was workin' fer my int'russ when she switched me off onto the gray, but my! didn't she hev a cute way of doin' it?

I told the saleslady that Lovisey'd never let on that she wa'n't suited, if I took her the red piece, but my dahtter'd be apt to guy me some when she see it, if I'd caused her ma to transgress the laws of artistic dressin'.

The girl laughed again, an' then I told her I wanted the trimmin's.

She picked out the spools of sewing silk, an' then she went over to another counter an' brot back some lace fixin's which she was goin' to show me, when I spoke up an' asked her how it would do to get some more of the red, an' make ruffles or bias pieces of it to trim the gray.

"Well," she said, "if you say ruffles of red silk, I'm right here to sell you the goods. I don't want you to have to go to some other store to get your trimmings. But, honest Injun, Mr. Beverly, I wouldn't do it just that way, if I were in your place. I'm afraid you'd be in for an awful roasting when your daughter saw it, if you buy bright red trimmin' for this beautiful silver gray." She didn't say why, but I was beginnin' to hev a good deal of confidence in her, an' see she was workin' fer my good.

Then she showed me what she called lace garnichoors of various kinds. They was mostly in sets, an' run from five to fifteen dollars a set. I'm not much of a judge of such things, but I must say I'd hate to make 'em fer that money.

"Well, now, Miss," I told her, "you know more about this than I do, an' if you think one of these sets would suit my wife fer trimmin' the dress, you pick out the nicest one, an' we'll hev it."

She s'lected one of the fifteen dollar ones. I b'lieve she called it Mecklin, tho I can't say pos'tiv; it may hev been Florenteen or some other kind.

When she laid it with the goods, she said, "Now, Mr. Beverly, if this lace doesn't please Mrs. Beverly, you just bring it back tomorrow, an' get your money for it. But I wish I was as sure of a million dollars as I am that it will suit her. I think I could resign my place to take effect Saturday night, and next week I'd be buyin' silk dresses instead of sellin' them."

"Well, now is there anything else Lovisey might want to go with this dress?"

"I don't think of anything unless it would be a pair of nice gloves, and a parasol to match."

I let her pick 'em out. I must say that parasol was a beauty.

"Now, I won't have the gloves stretched," she said, "for if I haven't given you the right size for your wife, she can come in and change them." She was jes' that thotful an' considerate. But law! They was the right size.

Well, we thot that was all I wanted, an' I paid her fer 'em, an' she sent 'em to be wrapped. Then I happened to think that I might get a few things fer myself, she was so willin' an' anxious to sell goods. So I told her I wished she'd show me some shirts.

It seems she was rather expected to stay there by the silks an' dress goods, but she had some girls to help her, an' she spoke to one of 'em, an' then she went with me.

She helped me pick out some negligent shirts. I took half a dozen of 'em, an' then three white shirts with starched boozoms. Then we bot me a couple of boxes of fine black socks, an' a dozen linen handkerchiefs. That was all I could think of.

She offered to hev the goods sent to the house, but I told her I'd take 'em right with me, so she said they'd all be brot to her counter.

We was goin' back, when we met the propri'tor of the store, an' she introduced him to me, an' told him I had a big stock farm near Chicago, an' had been in doin' some shoppin'.

Then she excused herself, fer she said she was needed back in her department, which I see she'd kep' a little eye on all the time we was buyin' the other things.

The propri'tor was an awful unassoomin' kind of man, an' we talked together quite a few minutes. I asked him the name of the girl that had been waitin' on me, an' he told me it was Miss Harnish. "She's one of the very best girls we have," he said; "in fact, one of the best I ever knew." An' then he told me what they paid her. I could hev jumped right out of my shoes when he named the figger. It was sal'ry enough for a man holdin' a purty good county office.

Then I told him how int'rusted I'd been legislatin' fer the benefit of shopgirls.

"Well," he said, "such a saleswoman as Miss Harnish doesn't need much protection from the legislature. She can set her own terms. Every merchant in town would be glad to get her away from me."

Then he had to go 'way, an' I went back to the silk counter fer my parcels.

Miss Harnish shook hands an' said good-bye, an' how obliged they was fer my patronage, an' told me when I come to town to be sure to drop into the store, whether I wanted anything or not. This was diff'runt, I tell you, from being snubbed by that girl on picket duty over there at that other store. But lan' sakes! Tha' was as much diff'rnce between them girls over there an' this Miss Harnish, as tha' is between the orniest scrub an'mal that ever run in the woods, an' a thoro-bred correct in ev'ry pint!

I took my goods, an' walked out of the store, steppin' high, fer I could see I had as big packages as any of the women shoppers.

When I got back to Jake's I began by showin' Lovisey the things I'd bot fer myself.

Lovisey's awful sensitive, an' she re'lly seemed a little hurt. "Why, Abijah, hev'n't the things I've been gettin' you all these years suited you? Why hev'n't you said something?"

"Oh, yes, my things has been all right, but I found a salesman so blamed willin' to show me all the goods tha' was in the store that I bot these few items jes' to reward the little thing's zeal."

I felt kind o' restless in my mind about callin' Miss Harnish a salesman to my wife, until after I'd looked in the dictionary at Jake's, an' found that a salesman is "one who sells goods; one whose occupation it is to sell goods or merchandise." So if it wasn't proper to call that girl a salesman, old Noer Webster's to blame.

I always hate awful to deceive my wife at all, she's so trustin'. Now my dahtter, I don't feel so scroop'lous about misleadin' her a little. Fact is I've never been able to deceive her enough so't 'twould sully the conscience of a baby.

When we got to the silk dress, an' the gloves, an' the parasol, well, mabby you think Lovisey wa'n't surprised an' pleased. I never see her take on so over anything in my life. An' that lace trimmin'! She told Jake's wife, "If I'd a-knowed Abijah had such taste, I'd been hev'n' him pick out all my dresses these many years."

We went back home a-Monday. Next day my dahtter come with her two chil-durn fer a little visit.

She was mighty tickled with that red silk fer little Loueez, an' she said the silver gray would make the prettiest dress her ma had ever had, an' she meant it,

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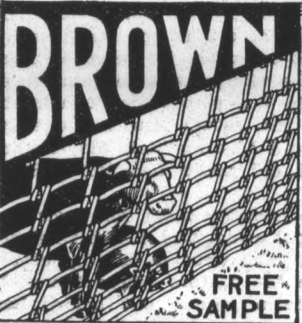
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We will ship to responsible parties on a consignment contract; that is, the agent only pays for what he sells. We will take farmers' notes for pay.

Our prices are right, our goods are extra. Write for prices and terms.
THE CINCINNATI PHOSPHATE CO., Station P, CINCINNATI, OHIO.

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.
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Many Styles. Sold on trial at wholesale prices. Save 20 to 30 per cent. Illustrated Catalogue free. Write today.
KITSELMAN BROS.
Box 316 Muncie, Indiana.

STUMP PULLER
Warranted the most practical machine made. One man can lift 20 tons. 3 styles. 10 sizes. \$25 and up. Screw, Cable or Hand Power. We make cheapest **TILE DITCHER** and the best over sold. One horse cuts 2 rows. One man. No twine. On trial. Agents wanted. Our new 64-page Catalog FREE. Write today.
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14 Cents a Rod
For 22-in. Hog Fence; 15 3/4-in. for 20-in.; 18 3/4-in. for 31-in.; 22c for 34-in.; 25c for a 47-in. Farm Fence. 50-inch Poultry Fence 33c. Sold on 30 days' trial. 30 rod spool Ideal Barb Wire \$1.55 Catalogue free.
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Ward Ornamental Fence
Cheaper and far more durable than wood for Lawns, Churches, Cemeteries, Public Grounds. Catalogue free. Ask For Special Offer.
THE WARD FENCE CO., Box 441, Decatur Ind.

PATENTS WORTH FORTUNES
Inventors: Send 6 cts. for our Valuable Patent Books
R. S. & A. B. LACEY, Dept. 89, WASHINGTON, D. C. Est. 1899

When Dinner Comes One Ought to Have a Good Appetite.

A good appetite is the best sauce. It goes a long way toward helping in the digestive process, and that is absolutely essential to health and strength.

Many persons have found that Grape-Nuts food is not only nourishing but is a great appetizer. Even children like the taste of it and grow strong and rosy from its use.

It is especially the food to make a weak stomach strong and create an appetite for dinner.

"I am 57 years old," writes a Tenn. grandmother, "and have had a weak stomach from childhood. By great care as to my diet I enjoyed a reasonable degree of health, but never found anything to equal Grape-Nuts as a standby."

"When I have no appetite for breakfast and just eat to keep up my strength, take 4 teaspoonfuls of Grape-Nuts with good rich milk, and when dinner comes I am hungry. While if I go without any breakfast I never feel like eating dinner. Grape-Nuts for breakfast seems to make a healthy appetite for dinner."

"My little 13-months-old grandson had been very sick with stomach trouble during the past summer, and finally we put him on Grape-Nuts. Now he is growing plump and well. When asked if he wants his nurse or Grape-Nuts, he brightens up and points to the cupboard. He was no trouble to wean at all—thanks to Grape-Nuts." 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.



Pump the Water

anywhere you want it with a **GOULDS**

Pure, fresh water throughout your home for household purposes, and in your barn and yard for the cattle is a necessity if you would live well and farm most successfully. You can have it by installing a Goulds Pump at a small outlay and practically no expense for up-keep. Simple and durably made. Practical in construction—work easily. Don't buy cheap imitations to cause constant trouble and expense. You can get the genuine if "Goulds" is on the Pump. Write today for our illustrated book, "Water Supply for the Home." It covers completely the subject of pure water for the country house, barn and yard and how best to obtain it. The book is free—study it to see what chance you have.

THE GOULDS MFG. COMPANY
86 West Fall Street, Seneca Falls, N. Y.



THE BEST LIGHT

MAKES and burns its own gas. Produces 100 candle power light—brighter than electricity or acetylene—cheaper than kerosene. No dirt. No grease. No odor. Over 200 styles. Every lamp warranted. Agents wanted. Write for catalog. Do not delay.

THE BEST LIGHT CO.
280 E. 5th St., Canton, Ohio



Mount Beautiful Birds

We can teach you by mail to mount and stuff Birds, Animals, Game Heads, Fishes, Tan Skins, etc. Just what every sportsman and hunter needs. Quickly, easily learned by men, women and boys. Cost very low. Success guaranteed, big profits. Free—New catalog and Taxidermy Magazine. Write today. Northwestern School of Taxidermy, 3681 Elwood Bldg., Omaha, Neb.

FOR YOUR HIDE'S SAKE

Have it tanned with the hair on for coat, robe or rug. Send for price list. We pay freight both ways if four hides are sent at one time.

THE WORTHING & ALGER CO., Hillsdale, Mich

FUR COATS and ROBES

Send postal for prices on TANNING HIDES and MANUFACTURING COATS and ROBES. MOTH PROOF TANNING CO., Lansing, Mich.

WANTED—FURS and HIDES.

We pay you the price on our list No more. No less! Write for price list and tags. H. M. PETZOLD, 1083 S. Claremont Ave., Chicago, Ill.

Cash Paid for Raw Furs

As New York is the best fur market in America we can and do pay highest cash prices for hides of Skunks, Minks, Coons, Muskrats, Otters, Foxes, Badgers, and all fur-bearing animals. We pay express charges. Write for **GINSENG** price list. We also pay best prices for **GINSENG** BELT, BUTLER CO. 144 Greene St., New York.

too. But I see tha' was somethin' about them goods that my dahter didn't quite understand, an' I could see that puzzled look come over her face whenever her mother got 'em out.

This her ma was doin' contin'yal, fer she showed the whole thing to ev'ry one that come in. An' ev'ry time she'd go over that song an' dance about my eggs-lant taste, an' how I'd got to do all her shoppin' fer her after this.

I s'pose Molly had heard this so many times that she jes' couldn't stan' it any longer. I overheard her sayin' to her mother, "Don't you know, ma, that pa never picked out that exquisite silver gray silk an' those dainty lace garnitures, without help from someone? Don't you know how fond he is of bright red? He'd have bot your dress an' Louise's off from the same piece, if he had been let alone."

"He didn't speak of anyone's a-helpin' him," Lovisey said.

"Oh no, of course he didn't speak of it, an' he isn't likely to, but I want to know who it was."

"You might ask your pa."

"Yes, I might ask him, but just let him know that anyone wants to find out something, and a rack of torture wouldn't make him divulge a syllable. I could ask him all right, but if I ever want to find out, I've got to take some way a good deal smarter than just asking him."

If I hev to buy all my wife's dresses, I'll just hev to go back to that town, an' to that pertick'ler store, an' to that same girl. But good land! I'd drive 40 miles with an ox team, any time, jes' to see that little lady show goods.

I don't mind shoppin', but I don't want to be come at with any "Woosted or cotton?" "What color you want?" "Pen or pencil," "5 or 10 cent?" "Lined or unlined?" An' I draw the line at buyin' goods of detectives an' gramophones.

SELLING THE OLD FARM.

BY HOWARD BANNON.

"Why, Hiram Smith, what do you mean by saying that you will sell the farm? What under the sun has put such a notion into your head?" exclaimed Mrs. Smith when her husband announced his determination to sell the farm.

"Well," replied her better half, "I'm tired of this 'ere old farm. Then, times are hard, an' I think we could do better by sellin' this farm an' buyin' a small one."

"Do you think times would be any better on a small place than on this one?" queried his wife.

To Lizzie Smith it seemed as if it would break her heart to leave the old place to which she had come as a bride; where their little ones were born and had grown up and gone out into the world as men and women. These things had helped to make the old place, to her, the dearest spot on earth. But all she could say only seemed to make Hiram more determined in his notion of selling the farm, and a few days later, when he returned from a trip to the village with the announcement that he had placed the farm in the hands of a real estate firm, his wife uttered no word of complaint, tho the announcement did make her feel sick at heart.

After the noonday meal was over and the dishes put away, Mrs. Smith went out for a walk. She went to the top of the little hill in the pasture where she could see their farm spread out before her. She could see the fields of hay and corn and wheat as the soft breeze gently moved them in great billowy waves. She could see the cows and the flock of snowy white sheep as they browsed the rich green grass. It seemed to her as if she could not bear to leave the old place.

Despite the fact that Hiram had always claimed that Sunday newspapers were agents of the evil one, he now became an eager purchaser of the "evil agents." Each Sunday morning, while all other farmers of the community were attending services at the little church, Hiram would slip over to the village and purchase a copy of the city daily. He would then spend the remainder of the day studying the advertisements in the "Farms for Sale" column.

One Monday morning he came into the kitchen looking sheepish-like and said: "Lizzie, here's an advertisement that I wish you'd take a look at. It's been in the paper two times now an' I'm goin' to see if we can't make a swap."

Mrs. Smith took the paper and read: "For Sale. The best farm in the county. One hundred acres of land, one-third in timber. House is a large, old-fashioned mansion. Just the place for a retired business man. Sold because present

owner desires to retire from farm work. Would sell for cash or exchange for other property. Address K 16, Herald Office."

"That might be a good place," cautiously remarked Mrs. Smith.

"Well I should say it must be," replied Hiram. "Notice it says, 'would exchange for other property.' Now, as you are going down to the store, you might just stop in and see Colonel Hodge, an' see if he couldn't arrange to swap our place for the one advertised in the Herald."

That afternoon Hiram harnessed up the horse and Mrs. Smith drove down to the village. Now, she and Colonel Hodge had never met. So when Mrs. Smith went into Colonel Hodge's office and showed him the advertisement and explained that she had come in to arrange, if possible, to exchange their farm for the one advertised, the Colonel saw visions of a deal and incidentally a nice fee for himself.

"Certainly, certainly, madam," exclaimed the Colonel. "I am sure the matter can be arranged. I put that advertisement in the paper myself. If you wish to look at the place I would be pleased to show it to you this afternoon, or any other time that would be convenient to you."

Mrs. Smith said she would be glad to look at the place that afternoon, and as she had a horse and buggy she would drive the Colonel out. Soon they were driving along the road and the Colonel was giving a vivid description of the farm and its many merits. "I have no doubt but what we can make a trade," said the Colonel, "tho I don't see why the old man is so anxious to sell. Why, he's got one of the best farms in the state."

"I suppose they are getting old?" queried Mrs. Smith.

"Well, yes," replied the Colonel, "they're getting up in years, but I consider them as being fools. Why, they only ask four thousand for the farm when it is well worth ten thousand. The old woman surely ain't got much sense or she wouldn't let the old man sell the place."

They were now approaching the farm and the Colonel grew more vivid in his description of the rich soil, fine fruit, good pasture and excellent water. Mrs. Smith signified her desire to see the house first so they drove on and entered the yard, but no one was to be seen.

"Don't seem to be anyone at home," said the Colonel. "The old man's out puttering around somewhere and the old woman is calling on some of the neighbors, probably. I'll just take the liberty of going in and showing you over the house."

The Colonel opened the door and they walked in. He was in the midst of a wordy description of the "grand old mansion," when the door opened and in walked Hiram.

"Oh, here you are," exclaimed the Colonel. "I've brot you a buyer."

"Lizzie!" gasped Hiram.

"You know her?" asked the Colonel, as he turned all sorts of colors and looked as if he would faint.

"Now," said Mrs. Smith, "I think this will teach you both a lesson. You, Colonel Hodge, will learn to talk decent about yer customers, an' you, Hiram—"

But the Colonel was going down the road toward the village at a rapid gait, and Hiram was out at the barn.

Needless to say that Hiram Smith still lives on the old farm, and he never mentions selling, neither does he read the Sunday newspapers.

SMILE PROVOKERS.

"Look here, you charge me \$5 as a fee for getting married, but a friend of mine who married last week tells me he only had to pay you a dollar." "Yes, that's quite true, but I've married him six times. He's a customer. I may never see you again."

"Have you an ear for music?" asked the society maid.

"No," replied the matter-of-fact young man. "I use one of my ears for telephone communications and the other for a pen-rack."

"I ran into town today to do some shopping, dear," said Mrs. Subbubs, entering her husband's office. "and I—"

"I see," he interrupted, "and you just ran in here because you ran out."

"Ran out?"

"Yes; of money."—Philadelphia Press.

"I'll give ye two a week," said the country merchant.

"I can't live on less than four," declared the ambitious boy.

"Ye don't know what ye can do till ye try, John. Try it on two fer awhile. It will make better reading fer yer biography when ye git rich."

"Owen Flannagan! Are you Owen Flannagan?" said the clerk of the court. "Yes, begorra," replied the prisoner, with a merry twinkle in his eye. "I'm owin' everybody!"

How to Make Better Cough Syrup Than You Can Buy

A full pint of cough syrup—enough to last a family a long time—can be made by the recipe given below in five minutes, for only 54 cents. Simple as it is, there is nothing better at any price. It usually stops a deep-seated cough in twenty-four hours, and is a splendid household remedy for whooping cough, colds, hoarseness, bronchitis, etc.

Take a pint of granulated sugar, add ½ pint warm water and stir about 2 minutes. Put 2½ oz. Pinex in a pint bottle and fill up with syrup. Take a teaspoonful every one, two or three hours. It keeps perfectly and the taste is pleasing.

The chemical elements of pine which are very healing to membranes, are obtained in high proportion in Pinex, the most valuable concentrated compound of Norway White Pine Extract. None of the weaker pine preparations will work with this recipe. Your druggist has Pinex or can easily get it for you.

Strained honey can be used instead of the syrup and makes a very fine honey and pine tar cough syrup.

BUSY FARMERS

have a chance to receive college instruction for one week or for four weeks.

The Michigan Agricultural College

offers the following practical one week courses:

BEGINNING FEB. 14th.

Corn Production, soils, preparation, planting, cultivating, harvesting, seed selection, judging, etc.

BEGINNING FEB. 21st.

Soils, fertilizers, fruit culture, spraying, farm crops, etc. This is the Round-up Institute week.

BEGINNING FEB. 28th.

Dairying, breed types, judging, feeding, tuberculin tests, equipment, etc.

BEGINNING MARCH 6th.

Swine, breed types, judging, breeding, feeding, forage crops, diseases, etc.

Prominent teachers from outside the state will assist in making each week very profitable.

The only expenses will be an enrollment fee of one dollar. Room and board at reasonable rates. Write for descriptive circular.

J. L. SNYDER, President, East Lansing, Mich.

BOOKKEEPING BY MAIL

If you wish to earn \$20 to \$40 per week, write us. We teach you bookkeeping at home in a few weeks of your spare time, and give diploma. Our new system is so simple anyone can learn. Free Employment Bureau open to all our pupils. One free scholarship in every town. Write for particulars. Lincoln Commercial School, 947 Ohio Bldg., Toledo, Ohio.

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.

AGENTS 200% PROFIT

Handy, Automatic HOME FASTENER
Do away with old home strap. Horse owners and teamsters wild about them. Fasten instantly with gloves on. Outwear the harness. Money back if not satisfactory. Write today for confidential terms to agents. F. Thomas Mfg. Co., 845 Wayne St., Dayton, Ohio

MAKE UP TO \$75 A WEEK AS A WATCHMAKER

And Start a Jewelry Business of Your Own

Write me today! Let me explain whereby you can become an expert watch repairer in three months—making \$25 to \$75 a week—and own your own jewelry business. I can teach you by mail and you don't have to leave home or quit your work. Pay me nothing for my instruction, advice, charts or diagrams.

CHAS. F. ELMORE, Principal Cor. College of Watchmaking

ROGERS, THURMAN & CO. (10)

—Dept. 60 90 Wabash Ave., Chicago—

New Rupture Cure

Don't Wear a Truss.

Brooks' Appliance. New discovery. Wonderful. No obnoxious springs or pads. Automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No galls. No lymphol. No lies. Durable, cheap. Sent on trial. Pat. Sept. 10, '01.

CATALOG FREE.

C. E. BROOKS, 2385 Brooks Building, Marshall, Michigan.

TRAPPERS MAKE MONEY.

Copy of Hunter-Trapper, a monthly magazine. 160 or more pages about Steel Traps, Snare, Deadfalls, Trapping Secrets, Raw Furs, Dogs, Big Game Hunting, etc., and a 64-p. B.T.'s con't Game Laws, Camping Hints, etc., all for 10c. A. B. Harding Pub. Co., Box 278, Columbus, O.

FARMERS' CLUBS

Address all correspondence 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 ORGANIZATION OF FARMERS.

Address of Hon. John Hamilton, Farmers' Institute Specialist of the U. S. Department of Agriculture, before the State Association of Farmers' Clubs.

(Continued from last week).

State and County Support.

After incorporation the next important question is that of financial support. The most of this should be provided by the members themselves. Self-help promotes independence and self-reliance and places the society above the need of compromising its principles for political favor. While this is true from the standpoint of the society it is also true that aiding such organizations from the public funds has been shown to be money well invested. The Province of Quebec furnishes an example of the practical working of farmers' clubs when encouraged by appropriations by the state. The clubs of that province are incorporated and have power to acquire and purchase lands for the purpose of holding exhibitions, for establishing agricultural schools or model farms and may sell, lease or otherwise dispose of them. The clubs may own animals for service in the territorial district which the club occupies, upon such conditions as the club may determine. They are empowered to promote experiments in farming, manuring and improved agricultural machinery and implements, encourage the study of the best methods of fattening cattle, the production of milk, the manufacture of butter or cheese, or the improving and draining of lands.

The amount of annual subscription or dues of each member is one dollar. This is supplemented by grants from the general government in encouragement of agriculture to the amount of over \$26,000.

What is the result? The result is that in 1907-8 there were 624 of these clubs in operation in the Province of Quebec with a membership of 58,310. The receipts from the members amounted to \$113,572.40. Most of the clubs now own standard breeds of stock. They bot in 1907 high-bred animals to the value of \$17,590, and paid out \$105,795 for improved seeds and fertilizers.

The Clubs Should Be Federated.

The next feature in the organizing of farmers to which your attention is requested, is that of federation. The preamble of your own constitution states the reasons for federation in an admirable way and I can do no better than quote it as expressive of my own view in this respect. The preamble states "We, the delegates from the various farmers' clubs of Michigan in convention assembled, realizing the importance and efficacy of organization in the promotion of ideas and the advancement of measures of general interest and benefit to the agriculturists of this state, believing that the social, mental, intellectual and financial condition of the farmer is advanced by local organization of farmers' clubs and that the organization of other local clubs will be promoted by a central or state association of clubs, and believing that such an organization would be a valuable means for the exchange of ideas and the securing the ends which may be deemed of general benefit to the farmers of the state, do hereby adopt, etc."

Federation enables the clubs to utilize their powers by concentrating for the accomplishment of the common good. Without this form of organization the individual societies from lack of unity of effort fail to secure the full benefits to which they are entitled and for which their organization exists.

You are to be congratulated for what you have accomplished in this great movement for the organization of agricultural people into local clubs and for federating these clubs into an effective working force to be utilized in securing the betterment of rural life.

Organization of Clubs Possible in Every Community.

Your experience here in Michigan has shown that the formation of farmers and their families into clubs for mutual im-

provement and business advantage is possible in every community, and experience wherever the experiment has been tried has proved that the members of such associations are progressing in social refinement and in intellectual and business capacity far beyond their neighbors who have not availed themselves of such advantages. A well organized farmers' club properly conducted, soon interests the whole community in the general welfare and also relieves the monotony of the old isolated farm life by introducing along with purely business benefits, interesting and profitable pleasures among the people in the form of social entertainments and intelligent discussions.

President Chandler, of your organization, in his address at the annual meeting of the clubs in 1908, voiced the view of those who have given most careful attention to the subject when he said: "Every school district should be organized into a club or a grange and farmers should lay aside their petty jealousies and supposed grievances and unite for their improvement, educational, social and financial."

In closing I will simply add to the declaration of President Chandler this other item, that when the agricultural millennium comes, and it is coming, there will be a farm club in every community, and all agricultural societies will be federated into a single state and national organization. That organization will represent agriculture in all of its interests and be devoted to the up-building of rural life in all its features, educational, social, political, commercial and religious. It will also be a defense against every influence that would in any way interfere with the highest development of rural interests or injuriously affect the happiness and well being of rural people.

CLUB DISCUSSIONS.

The Home Training of Children.—The Ingham County Farmers' Club held its January meeting on the 8th, when two very good papers were read and freely discussed. Mrs. R. J. Robb ably presented "Home Training of Children Upon the Farm," emphasizing the benefits of country air and stating that out of 500 boys in an Industrial School, 490 of them would be from the city, and that happy is the boy who has the companionship of his father; that he is the example and that character is moulded by line upon line, precept upon precept.

The Panama Canal.—The other paper was upon "The Panama Canal," by G. W. Bristol, and was illustrated by maps. The little country was settled by the Spaniards in 1510, and in 1821 seceded from Spain and became a part of Columbia and in 1903 declared itself free and independent. This canal is 49 miles long and will cost the United States \$400,000,000. The next meeting will be at Brookside with Mr. and Mrs. B. L. Green, the second Saturday of February and the program will consist of three things that Washington never saw—modern education, steam and electricity.—Mrs. J. E. Tanswell, Cor. Sec.

Club Plans for the New Year.—The first meeting in the New Year of the Washington Center Farmers' Clubs, was at "Elmwood," the hospitable home of Mr. and Mrs. S. W. French, who gave a hearty welcome to the Club members and also to a number of visitors. After music and the usual opening exercises, the new 1910 programs were distributed and the president, Mr. F. E. Cammett, delivered his address and outlined the Club's work for the coming year. He emphasized Club extension and local option as being most important. Mr. W. H. Ackley gave a most interesting and instructive paper on "Neglected Opportunities." Mrs. Millar, of Washtenaw county, spoke of the high taxes in "Wet Washtenaw," and urged the Club to do all in its power to keep Gratiot "dry." Mr. L. Gillison, of Clinton, also spoke in favor of local option, and Hon. D. M. Morrison, of Clinton, gave a rousing talk on the need of "keeping dry." Mrs. Morrison gave a humorous recitation. Mrs. C. A. Mathews, vice-president of the State Association, was also present and gave a short talk, while C. A. Mathews of the Essex Club, told of the workings of that Club. Mrs. McEnderfer gave a reading on "Grooming the Farm." The Farm inspection committee gave their report, and the retiring secretary, Mrs. George Hill, read the constitution and by-laws. This Club claims to have had for the last three years the most faithful and efficient secretary in the state. Mrs. Hill having never missed a meeting. She was given a vacation this year at her urgent request. Such faithful officers do much for the Club's welfare. The next meeting will be the second Thursday in February with Mr. and Mrs. Campbell at Shadlands.

Hold Annual Meeting.—The 9th annual meeting of the Farmers' Club of Indianfields, was held at the suburban home of Mr. and Mrs. M. Anger, Dec. 16, 1909. A delicious chicken-ple dinner was served to fifty members and guests. The following officers were elected: President, B. H. Smith; vice-president, Robert Park; recording secretary, Miss Martha Purdy; corresponding secretary, Mrs. J. M. Miller; treasurer, Mrs. A. H. Andrews, Jr.; organist, Mrs. C. A. Taggett. B. H. Smith, delegate to the State Association, gave a very interesting report of the Lansing meeting. A fine musical program was rendered at the close of the business session. The Club will hold their first meeting of the New Year at the home of Mr. and Mrs. Fred Slocum in Caro, January 20.—M. R. P., Sec.

GRANGE

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

THE FEBRUARY PROGRAMS.

State Lecturer's Suggestions for First Meeting.

Why my neighbor does not join the Grange.

Select reading, "The Credit System." The Farm Business—1, why accounts should be kept.

Instrumental music, recitation. Three-minute sketches of our martyred presidents.

Paper—Services rendered by Lincoln. Roll call, responded to by sayings of Lincoln or memories of his times.

Suggestions for Second Meeting.

Song by the Grange. Roll call of officers, responded to by favorite quotations from Longfellow.

Drill in Grange Ritual.—1, outer and inner door signals; 2, outer and inner door passwords; 3, signs of four degrees; 4, how enter a Grange in fourth degree.

Instrumental music. Farm Business—II. How to keep accounts. 1, with crops; 2, with animals; 3, with the household.

Reading, "Family Accounts." Exhibition and explanation of account systems by two men and one woman who practice keeping accounts.

Cookery—II. Fruits and Salads. Specimens of fruits and salads, attractively served, by five women who call attention to special points in their favor.

NEW GRANGES IN THE CLOSING QUARTER OF 1909.

The number of Granges organized and reorganized from Oct. 1, 1909, to Dec. 31, 1909, both inclusive, is as follows:

Organized.	
Colorado	1
Illinois	2
Iowa	2
Kansas	1
Maine	1
Massachusetts	3
Michigan	12
Minnesota	4
Missouri	1
New Hampshire	1
New Jersey	1
New York	7
Ohio	8
Oregon	7
Pennsylvania	7
South Dakota	5
Vermont	8
Washington	24
Wisconsin	1
Total	96

Re-Organized.	
Colorado	1
Delaware	6
Massachusetts	1
Minnesota	5
Ohio	2
Oregon	1
Pennsylvania	1
West Virginia	2
Total	19

POMONA MEETINGS.

Lenawee County.

Pomona Patrons of Lenawee Co., at their last meeting decided to make an effort to get up a year book which shall contain dates and programs for all Pomona meetings to be held during 1910. A strong pull to increase the membership in the county will also be made this year. New officers of the Pomona were installed as follows: C. H. Bramble, of Tecumseh, master; E. A. Beamer, of Ogden, overseer; A. B. Graham, of Madison, lecturer; J. W. Sell, of Ogden, steward; A. C. Green, of Raisin Valley, assistant steward; Mrs. George B. Horton, of Fruit Ridge, chaplain; M. T. Cole, of Palmyra, treasurer; A. H. Osborne, of Madison, secretary; E. R. Illenden, of Madison, gate keeper; Mrs. E. A. Beamer, of Ogden, Ceres; Winnifred Osborne, of Madison, Pomona; Mable Illenden, of Madison, Flora; Mrs. A. C. Green, of Raisin Valley, L. A. S.

Clinton County.

Clinton County Pomona Grange met with Olive Grange, Dec. 22, and elected the following officers: Master, Leslie Brown, of Bengal Grange; overseer, Ella Balcom, of Ovid Grange; lecturer, Mrs. C. L. Pearce, of Dewitt Grange; steward, Byron Sowle, of Essex Grange; ass't steward, Levi Greenwood, of Banner Grange; L. A. S., Mrs. Levi Greenwood, of Banner Grange; chaplain, Mrs. Allie Veeney, of Bingham Grange; treasurer, Charles Jones, of Bengal Grange; secretary, Mrs. A. E. Dills, of Dewitt Grange; Pomona, Mrs. Chille Carpenter, of Olive Grange; Flora, Mrs. D. S. Pike, of South Riley Grange; Ceres, Mrs. Daisy Ottmar, of South Riley Grange; gate keeper, Dell Whitlock, of Eureka Grange; member executive committee, Edgar Burk, of Eureka Grange. An invitation was given by Bengal Grange for Pomona to meet with it on Jan. 26, for installation of officers, which invitation was accepted. As will be noted from the list of officers, Pomona adopted a plan at this meeting which is a little out of the ordinary in that the officers were selected from as many different Granges as possible. Clinton county has 11 Granges and officers were chosen from nine of the eleven. One Grange in the county has no fifth degree members and one other has only one Pomona member.

Charlevoix County.

Charlevoix Pomona had its regular business meeting, held with South Arm Grange, Dec. 31, and elected the following officers for the term of two years: Master, Hon. Wm. Mears; overseer, Martin Rhuling; lecturer, Walter Black; steward, Rueben Murphy; ass't steward, Orrin Todd; chaplain, Mrs. Heller; secretary, R. A. Brintnall; treasurer, Henry Black; gate keeper, Martin J. Staley; Ceres, Miss Todd; Pomona, Miss Liskum; Flora, Miss Warden; lady ass't steward, Eva Heller; member executive committee, Fred Heller. Colonel E. B. Ward, the retiring master, has been at the head of the organization in the county, with the exception of one year, for the past twenty years and has brot Charlevoix Pomona to the head of all county Granges in the United States, only one Pomona having a larger membership. Hon. William Mears, the master, is well known in Mich-

igan, having served in the state senate. D. S. Payton, who had charge of the Grange exhibit from this county at the meeting of the State Grange, made his report as to the great advertising value of such an exhibit. Bro. Payton having received numerous letters of inquiry in regard to the farming possibilities of Charlevoix county.

Plans were laid for another season of aggressive Grange work. Next meeting will be held with Wilson Grange.—Glenn M. DuBois.

Huron County.

Verona Mills Grange entertained Huron Co. Pomona, Dec. 23. There was a good attendance and after the annual election the new officers were installed by Bro. Hunt. The question of having a Grange deputy visit us at some Pomona meeting during the year was discussed, it being decided to have a deputy visit us in the near future.

The lecturer then took charge of the meeting. Bro. Charles Fuller and wife, our Pomona delegates, responded to the topic: "Some benefits derived as a delegate to State Grange," in a very able manner. "A practical education, what is it?" was presented by Bro. Ramsey, who that a high school education was not practical. To follow a special line of business one should take a course along that special line. Everything that helps develop the mind or body is practical. Mrs. Esther E. Lincoln read an excellent paper on "How shall we educate our boys and girls for the farm?" Among many good things, she said it is a generally accepted fact that farm life is the most natural and healthful, and the best adapted to the development of the three-fold man. To prepare our boys and girls for life on the farm, teach them to love home; make the old farm home the dearest spot on earth, then home will mean the farm and the farm will mean home. Make the boys and girls feel themselves a necessary and vital part of it all; let them alike learn all they can. Young people should be given at least one year in high school that they may judge for themselves whether they are willing to put into it all that is necessary to get an education out of it. The training one gets there is decidedly practical. In the evening a class of 17 were obligated in the fifth degree. The evening program consisted of music, recitations, an address by Prof. Charles McGee, and general discussion of the subject, "How can we improve our present school system?" A play and pantomime were also given. Grange closed to meet with Hope Grange in March.—Mrs. Laura N. Hunt, Lecturer.

AMONG THE LIVE GRANGES.

Hamilton Grange. one of the oldest Granges in Van Buren Co., will conduct a contest for securing new members, sides having been chosen at the last meeting. The Grange is in good condition but will be made stronger if possible.

Gun Plain Grange. No. 1281, Allegan Co., may still be numbered among the live Granges. The first Tuesday evening in January the officers for the coming year were installed and, tho a terrific storm was raging, not an officer elect was missing. Our ladies surely know how to make delicious oyster stew, if they were on the losing side in the contest. Our delegate's report of State Grange was received with enthusiasm. We look forward to a prosperous year.

Butternut's Anniversary Meeting.

The members of Butternut Grange, of Montcalm county, made an interesting anniversary celebration of one of their meetings near the close of the year. After conferring degrees on a small class an oyster dinner was served, followed by a fine program of toasts. Master J. D. Patterson, in responding to "A Grange Look Backward," said that the retrospect of the year just closing is very gratifying. Success has crowned the efforts of the State Grange, in general, and Butternut Grange in particular. There has been a healthy increase in membership and interest. Mrs. R. G. Neumann spoke on Grange gains during the year. She said that the organization had gained in experience, faithfulness, loyalty and membership.

"Our Grange and the Young People," by One of 'Em, was well responded to by Samuel J. Huyck. Mr. Huyck said that there are no old people in the Grange. All members are able to work and hence are young. The young members should reflect seriously on the future outlook of the Grange. The boy of today is the man of tomorrow, and must take up the responsibility laid down by those of maturer years.

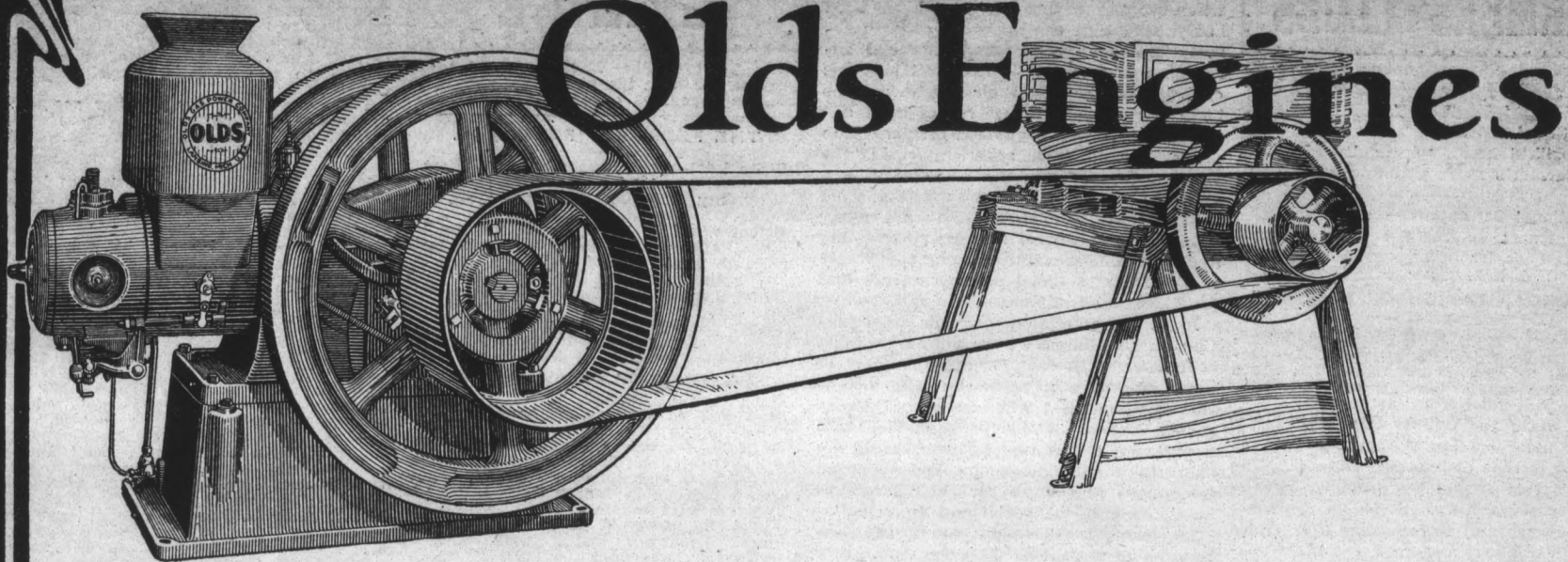
"What the Grange Owes Women," was interestingly presented by Mrs. May Patterson. She said that it owes much to women. One of its founders was a woman. It was woman's work thru the Grange that led to the teaching of domestic science in the Agricultural College. "What Women Owe the Grange," was assigned to Mrs. Bemis. She said that woman owes much to the Grange, and what she owes she pays. She pays by giving to the Grange her best thought, her best work in both a social and a literary way, and her best cooking.

In his talk, "A Grange Look Ahead," A. L. Bemis said that the outlook is promising. Whatever the Grange has asked for in the way of legislation it has received. He mentioned several bills that became laws because the Grange asked for them and they were reasonable. What the Grange asks for it backs by a united and firmly established organization.

COMING EVENTS.

Clinton Co., with Bengal Grange, Wednesday, Jan. 26. Installation of officers. Muskegon Co., with Ravenna Grange, Thursday and Friday, Jan. 27 and 28. J. C. Ketcham, state speaker.

Please accept my thanks for the fountain pen. It is just fine. Many thanks.—Fern Amidon, Fremont, Mich.



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