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THY BOUNTIFUL HAND THANKSGIVING



AND THANKS FOR CONTINUING
A PROTECTED MARKET FOR OUR
PRODUCTS; WHILE FROM A PRO-
TECTED MARKET, WE MUST
SUPPLY OUR NEEDS.

PEETS

MAKING PREPARATIONS FOR THE WINTER.

There is no other such time on the farm as when we are preparing for winter. Mother earth provides for her children. Each year she gives fresh products to stand between us and starvation until harvest time shall come again. She has given us fruits worthy of Eden, rich and precious grains and fragrant and palatable herbs and vegetables. Her robes of golden red and white are put on—a sort of warning that her children may prepare for winter.

In preparing for winter we are simply expressing our faith in God's testimony that He rewards them that diligently work with Him. He who has faith in the coming of the seasons and prepares abundantly for his family, his herds and his flocks, believes in nature. Believes in God. Faith is the key that unlocks God's storehouse and brings all of the supplies out of the fullness of the earth. The life of a farmer has better guarantees than the crown of kings.

Years ago farmers laid in bountiful stores of food for winter. Many of us, as the fleeting years enrich retrospection and lessen visions of profit, look back with more than passing pleasure on those days of preparation for the winter—days spent with grandfathers or fathers gathering in the good things for winter. Many happy hours we spent as we counted our blessings and with hearts attuned to visions of apple dumplings, pumpkin pies, steaming corn bread and other good things diligently helped gather the rewards of our labor.

Yesterday the fertile soil gave us the things needed to support life and add to its comforts and pleasures. Today it gives nuggets which we shall mint into money. The sentiment that years ago surrounded the work of preparing for winter has given way to commercialism. The artificial has succeeded the real. The fine old farms that gave our grandfathers and fathers the necessities of life have passed into other hands. The spirit of money getting is in evidence on all sides. Many times we wonder if these changes are all for the better, but what's the use? No more specious philosophy was ever enunciated than that embodied in the aphorism, "Whatever is, is right." Its grain of eternal truth lies in the fact that those things proved in the test of time usually endure. The demand of the human race for food products in exchange for money and labor has made a great change in our ways of farming and living. Today it is an industry that must be managed on principles of strict business economy.

Look Well to Home Comforts.

The first consideration in preparing for winter is to keep warm and comfortable. Stoves and chimneys need overhauling to put them in good working order for winter. If wood is the fuel used for cooking and heating, the chimneys and pipes should be cleaned and the stoves set up so that they will give the most heat with a minimum of fuel. By having the stoves and chimneys in good shape the quantity of wood required to heat the house will be greatly reduced. By providing the right kind of stoves and plenty of fuel it is possible to remove some of the disagreeable features of spending the winter in a cold climate. On very many farms coal is now used for heating and equal care must be exercised in arranging the heater as is the case with a wood stove. Storm doors and double windows save fuel and help to preserve health and comfort.

Next we should provide for the comfort and health of the helpless creatures which an all-wise Providence has placed under our care. The few hours spent in repairing loose stable doors, windows and openings will save many dollars' worth of hay and grain. A little forethought and careful planning will make old stables comfortable for the stock during the winter. A few boards, a little straw and ambition will do wonders toward transforming the old stable into a comfortable place for the stock to spend the winter. Horses, cattle, sheep and swine keep in good condition with less food if provided with protection from the cold, stormy weather.

Business sagacity should prompt every farmer to provide plenty of space to store his farm equipment. The needless waste as well as the depreciation in value of his tools and machinery is one of the greatest leaks in modern farming. One of the largest bills farmers have to meet today is for farm implements and where one farmer takes anything like good care of his tools and machinery, one hundred take no care at all. By provid-

ing good shelter and oiling and painting farm tools and machinery when it is put away in the fall a great deal of money can be saved in the operating expenses of our farms.

The storing of fruits and vegetables for winter is a problem of sufficient interest to require a number of special articles; however, a few phases of the subject may be profitably considered here. Thin skinned vegetables such as potatoes, keep best when stored in a dark and cool cellar. Light is detrimental to the keeping qualities of such vegetables. Apples, winter pears and grapes keep best when put in barrels or boxes, after being carefully sorted and wrapped in fine paper. Squashes keep best if stored in a dry place where there is not danger of freezing. Celery for winter use may be stored in boxes eight inches wide and 20 inches deep, placed in the cellar. The plants can be dug with a large ball of dirt adhering to the roots, and after being placed in the box, loose dirt firmly packed about the roots and watered. If rats infest the cellar the boxes should be set deep so that they may be covered. Stand the plants in an upright position, packed as closely together as possible.

The partial failure of the hay crop makes it necessary that many farmers make the best of every ton of roughage. Making hay from corn stalks is one solution of the problem. The practice of husking and shredding is slowly gaining favor and makes its greatest growth in years of hay scarcity. It costs something to shred corn fodder, but it pays when hay is scarce and high. The gain in feeding value makes it a profitable policy. In November and December when the days are warm and fair, the fields solid and the shocks not yet frozen to the ground it is possible to haul the shock corn much faster than in the late winter and early spring when all of these conditions are the opposite. The advantages of doing the work of hauling and storing at one time, the gain in feeding value and the convenience in feeding makes the shredding of the stalks one of the most important things to do in preparation for winter on the stock farm. Aside from all these considerations the refuse from feeding the corn hay is the best kind of bedding for stock of all kinds. Nothing excels it in the ability to keep stock dry and clean. It is the best absorbent of the liquids in the manure we can use in the stable. The value of the bedding and the increased value of the manure may, in many circumstances, more than balance the expense of shredding.

In making preparations for winter feeding every farmer should take an inventory of his stock and his supply of home-grown feeds, so that he may make definite plans for getting his animals through the winter in the best shape. He needs to consider the age, size, value and condition of his animals as well as the kinds and quality of his roughage and grain feeds. By taking a day's time and studying the whole problem, he may know approximately how much corn fodder, straw and other roughage he can profitably utilize, and how much purchased grain will be required to carry his stock through the winter to next year's pastures. In looking over the stock and carefully consulting their individual records, and carefully considering the price of the various feeds, he will many times find it more profitable to sell the poorer animals and feed more to the better ones.

Very much of the profit for the year will depend upon how we use the home-grown grain and roughage, and how we balance the winter feed of our stock. In feeding dairy cows we can frequently save a lot of money by selling timothy hay and buying clover hay, or wheat bran and other grain feeds to make up the deficiency of protein in the feeds grown at home. The dairy cow cannot do her best on timothy hay and corn, but needs feeds like gluten, oil meal, cottonseed meal, bran, and other protein feeds in connection with her corn and hay, if she gives good results at the pail. To get milk we must feed protein, and unless we can plan our feeding so that the cows have a sufficiency of protein we had better sell the cows.

Young cattle require about the same kinds of food as milch cows. Their growth and development requires protein to keep them strong and in a vigorous condition through the winter, and enable them to go out to pasture and develop as they should the next summer. Cattle that are being fattened must have fattening foods, such as corn; but, even with fattening cattle, better economical results will be obtained by feeding alfalfa, clover and other proteinaceous feeds in

connection with their corn feed, for corn alone is so deficient in protein that there is danger of injuring the health of the animal before it is in condition to market. The same rule applies to feeding hogs, and the period of the corn and water diet should be very short. Everything considered, I think it will pay every farmer to make a study of this feeding question in preparation for his winter's feeding operations before winter sets in.

New York. W. MILTON KELLY.

WANTS TO LOCATE IN MICHIGAN.

sons, 16 and 18 years of age, a wife and one daughter at home, the latter being 19 years old. I was brought up on farms in New York and Michigan, the last of my farming being done for my father in Eaton county when I was 19 or 20 years of age. Then I came west, where I have been in the newspaper business for many years, having sold out about one year ago. Have two business buildings here that bring me in \$105 a month rent, and have a home worth about \$4,000. The boys, especially the older one, are very much interested in farming and stock-raising, and the elder has had one year at the Montana Agricultural College. Irrigated land here, as elsewhere, is very high in price, and expensive to operate, while our crops, at an elevation of 5,000 feet above sea level, are restricted as to kind, and fruit is out of the question. I am, therefore, looking toward Michigan and the fruit belt with an idea of securing a farm there. The soil of Michigan is so varied that I would like the advice of some practical farmer in a selection of a place that I should expect to make my home for the balance of my life.

Wyoming. J. K. C.

Perhaps it would not be possible for me to answer a question like this without being prejudiced in favor of Michigan. I have visited a great many states, although not the far west or northwest, and of all the country that I ever saw, give me Michigan. Taking everything into consideration I honestly believe that there are more happy homes, more healthy and satisfied people, and, taking one year with another, more, or as much, real profit made in agricultural pursuits in the state of Michigan than in almost any other section of our country.

The fruit belt of Michigan is known the world over. It was a great surprise to me when I was down in Florida one time, and people with whom I had business learned that I was from western Michigan, to know that they understood all about the natural advantages of western Michigan as a fruit location. They seemed to understand it even better than I did, at least they had read and thought about it much, while with me it was a matter of such common moment that I paid no particular attention to it. Those orange people down there understood thoroughly that the winds blow across the cold waters of Lake Michigan in the spring and retard the bud development of fruit sufficiently so that they are kept back until permanent warm weather comes and consequently are not liable to be injured by extremes of temperature as they are in a great many parts of the country. This advantage certainly makes Michigan a very desirable and very reliable location for one who wants to make fruit a specialty. All over western Michigan splendid fruit locations can be purchased; of course, some of these are pretty high-priced but they are worth it. Men have put their lives into developing a fruit farm and then cannot be expected to dispose of these, which are bringing them in good returns, for ordinary prices. Hence, if one gets a fruit location very far south in Michigan he must expect to pay for development, but farther north and perhaps a little farther in the interior of the state a very satisfactory location can be secured at a reasonable price. They, however, are not developed. Then, too, one doesn't have to confine himself to a thin strip along Lake Michigan for fruit locations. Within the vicinity of Grand Rapids which is 35 to 40 miles from the lake shore are to be found some of the most profitable fruit locations in the entire state. We can go farther inland even to the very center by being a little bit particular in selecting a location where we have plenty of air drainage.

But Michigan is not alone noted for its fruit. You can raise almost anything successfully and profitably in Michigan. Michigan produces more white beans than any other state in the United States. Michigan is second in the production of sugar beets; and you can raise just as good and just as big corn, wheat, oats, or barley, just as nice alfalfa or clover, and in fact, you can raise any of those crops which make for profitable and successful agriculture.

Michigan lands nowhere sell for what they are worth. In Illinois and Iowa the

land is selling at a fictitious value compared to Michigan land. Their lands may be worth it—I presume they are—but if they are, Michigan lands are worth the same, and yet they sell in many instances for half the price of some desirable locations in some other states. It is hard to tell why this should be, unless it is that Michigan farmers are so well satisfied with their locations that they are not trying to change. But certain it is, the real value of Michigan real estate is not being realized if we are warranted in making comparisons with real estate in other states. To my mind there is no better place in this or any other country for a middle-aged man or his sons to locate with the idea of making it a permanent home.

COLON C. LILLIE.

THE PROGRESSIVE FARMER.

What does the progressive farmer need to be? First of all, he needs to be a man with an outlook. It is not enough for the farmer to have the best technical skill, to be able to take advantage of the information he can get with regard to the actual production of his crops; he must have besides, the power of thinking in a more comprehensive manner of the problems of his industry. He must not only know how to produce, but he must have the judgment to produce what is most profitable; he must be able to watch the changing conditions that affect his business, and to move with these changes. It is prices, in the long run, which compel the farmer to move in one line or another. They sum up his situation; they are the practical result which means to him gain or loss. Of course, a man has to consider what a crop gives in other ways, such as food for himself and his stock, as well as in the way of money prices, and that is a truth which cannot be too often repeated, either. Slowly but surely the changes in prices, however they are caused, work out the changes in employment of the land, and we must study these mastering forces in order to use them.

Let me dwell a little further on this question of specializing on the high-class product. Producing the finished article is the business of the progressive nation. It is quality that will pay, and for her it is quality alone that will pay—the competition with the dear article, not with the cheap article, with the high quality, not with the low price.

One of the features in the commercial world—which has advanced so rapidly in the past twenty years—is the use they make throughout of accounts, of careful statistical records, showing the cost of each independent branch of the work. They realize that some of the best business time is in making careful records of cost, and from time to time comparing these, and contracting and developing things on the basis of figure returns.

The progressive farmer must study and work in this way. He must get all the knowledge he can from the scientific expert, and then he must become an experimenter and an investigator himself—a collaborator, in fact, with the scientific expert. But let me be clear. He must first get all the knowledge he can from the expert, for it would be folly for him to begin experimenting with a view to discovering what was already fully ascertained. The farmer is a colleague of the man of sciences. He is in actual touch with broad, living scientific interests. To be progressive we must have solidarity in our farming—a strongly developed mutual interest—our agricultural production and distribution as highly organized as possible.

Farming is less of a selfish industry than others, and the progressive farmer must be essentially a socially minded man. He must look to working with and, where he can, helping his brother farmers and his laborers, and co-operating with all who are in any way connected with land. Farming only succeeds in a countryside when all the farmers are moving together. Farm life has its own natural healthy individualism, but it needs to have called out the social instincts of the true individual as well.

The progressive farmer is, first, a man who studies and analyses his own problems; second, he is a man who looks at how others are facing their problems, and studies their ways and methods; third, he is a man who experiments, who, after studying a question, steps out on lines of his own; and, fourth, he is a man who recognizes that he must work with and help his neighbor in his business if he is to succeed in his business himself.

Canada. W. R. GILBERT.

PLANNING THE FARM WORK.

The planning and carrying out of the farm work becomes more of a problem as the magnitude of the work and the amount of help increases. The general plan may be much the same, whether the work is done by one's self or whether there are a half dozen men to assist in doing it, but the oversight of the carrying out of the plans becomes more difficult. If the farmer is working alone it is comparatively easy to carry out his plans and do the work as he desires. One assistant does not complicate the situation so much either, but when the number increases to several it is found that someone must devote considerable time to looking after the details—keeping the tools in condition and in place, and seeing that tools and material are always in readiness when it is desired to begin a job. With so many using tools they do not always get the best of care, and, of course, they will wear out and need repair. Someone must keep a general oversight of this.

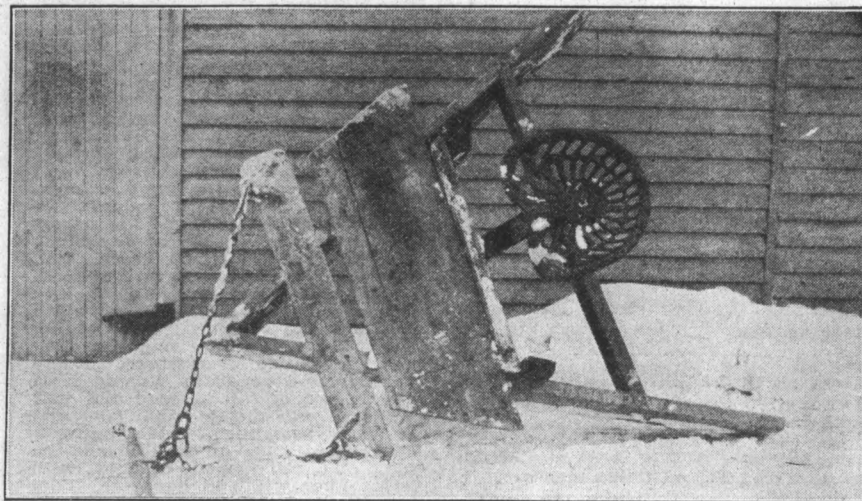
Then the work must be laid out so that there is always something appropriate to the man and the weather on hand. Those who have had considerable help will know that some are much better suited to certain kinds of work than others; for example, some men are good at hand work but not with a team; some are good with a hoe, while others would not earn wages with one; some are good huskers, others are not, etc. To get the most out of help one should strive to keep them at work for which they are adapted as much as possible.

As the amount of help increases the question of supervision also arises. The farmer can supervise the work of one or two men fairly well and put in considerable time in the field himself, but as the number increases he will find that much of his time is required in planning the work, in keeping everything in readiness to carry it out, and in attending to the business end of the farm. He can not do this work to advantage if he is physically exhausted most of the time from routine work, and instead of trying to do a man's work in the field and look after the planning, repairing, and business end also, if he will let most of the field work alone and attend to the supervision and business part, the work will be likely to move better and with less friction.

Of course, this will necessitate that the help be depended upon to use much of their own judgment and to work without the presence of the "boss," but if a good class of help is secured, and they are used well, they will generally do fully as well when left more to their own judgment in minor affairs and details than if they are not required to rely upon themselves for anything. If a man is given his choice of methods for accomplishing results, he will be likely to work harder to attain them than if following a method laid out by another which he is inclined to believe is not as good as his own, and if he finds that his own way is at fault through trial, he will be likely to put in his best efforts to redeem himself, and will be likely to adopt the improved method next time. What I wish to show is, that the intelligent laborer should not be considered a mere

of help is more necessary for most farm operations. Where specialties, such as fruit, trucking, sugar beets, etc., are followed on a large scale, it may be practical to use some less intelligent labor and to group them in gangs under a competent foreman for such work as hoeing, weeding, picking, and operations of this kind.

Finally, the point I wish to make clear is that it will often pay the farmer better, especially if his operations have considerable magnitude, to devote more of his time to careful planning of the farm work; thorough supervision, care and attention to the tools and equipment; some time and thought to the study of marketing the produce and some to judicious buying; such attention to farm accounts as will tell what crops or fields or kinds of treatment yield a profit or a loss, and a study of these accounts with a view to improving the profit side of the ledger. If the large farmer will devote a considerable portion of his time to this work, and the small farmer will devote a part of his best time and thought to it, both



The Completed Snowplow, Leaned against a Building to be Photographed.

will find farming more pleasant, and probably more profitable.

Another feature which should be mentioned in this connection is the vacation idea. I do not believe it pays any farmer to stay on his farm year in and year out, never getting anywhere except to town, or seeing how anyone except his neighbors conduct their work. We are all tied down rather closely, but we can occasionally take time enough for a short trip to visit friends or study some other people's methods of conducting their business. The farmer who does this will find that some ideas will be gained, if he is on the lookout for them, that will be of more value to him than the time lost. Besides, the change and relaxation from the daily routine of duties and surroundings will do him good and he will feel like resuming his tasks with added interest and inspiration.

Calhoun Co. S. B. HARTMAN.

MAKE A SNOWPLOW THIS WINTER.

To the farmer or the farmer's son who has not made himself a snowplow before this, I say, get busy now. Build one for yourself. There is almost certain to be several months of snow this winter and

chicken coop and the barn; think how the chickens themselves would thank you when they found a place where they could get to the ground, and the chick-a-dees and blue jays will come if you scatter a little chaff from the hay mow. In half an hour you can make all these paths about the home and one to the mail box at the gate and, perhaps, even to your next neighbor's. If three or four farmers would plan together they could keep the road well broken to the school-house and save the children from wet feet and perhaps from sickness.

The plow in the picture is made of 2-inch plank, 13 inches wide and six feet long, with a spread of five feet. As I helped to build this one I will give a few suggestions: Put an iron rod, as a brace, back of the board brace for there is a good deal of strain on the plow when the drifts are packed in by a hard wind. Use two-inch irons on the bottom to take the wear. The seat, taken from an old mower, is bolted to a board that fits into cleats on the inside of the plow; the seat can be lifted out when the snow is

light, or used when you wish to ride to weight the plow. When summer comes put the snowplow under cover and it will last twice as long.

When you have once used a snowplow you will find you had as soon part with your other plows as with this one; it will only depend on the season which one you will have in use.

Beside all the necessary paths about the house and barn, you might follow the example of the young man in the picture, who is making a path in the shelter of the hedge so "Grandma" can have a nice place to walk, or make the team do a bit of good work by cleaning a path down some near-by hill so the children can have a good place to coast.

Montcalm Co. E. A. F.

POWER AND ITS USES ON THE FARM.

A great deal has been said and written regarding the advantages of running a gasoline engine as a source of farm power. This is a subject which may be elaborated upon indefinitely. The gasoline engine is no longer an experiment, it has become a necessity to the up-to-date farmer who would use the cheapest available power in the many tasks to which it is adapted upon the farm.

But there is another side to the farm power question quite as important as that of power itself, and that is the addition of equipment for using that power in every possible manner profitable. Power-driven machines are quite as essential as the power to drive them in the accomplishment of many tasks at a minimum of cost, whether it be a hay press, a feed grinder, a corn husker or shredder, or such implements or tools of lesser importance as a corn-sheller, the grindstone, fanning-mill, buzz-saw, or even the churn or washing-machine, all of which can be readily equipped to be run with a gasoline engine and thus save much valuable time and hard labor in the accomplishment of routine tasks.

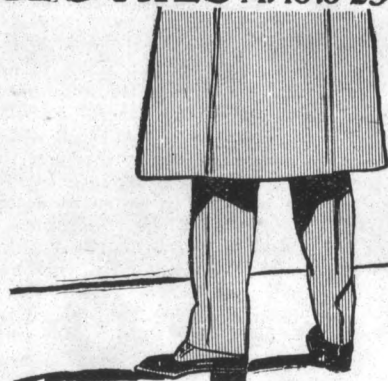
As a means of gaining information regarding many saving methods of this kind which may be adopted it would be a wise move, in addition to getting literature regarding the numerous types of gasoline engines, to get literature regarding the power-driven machines and farm equipment which are advertised in these columns and which will prove profitable in use upon many farms as a means of utilizing the cheap power of the gasoline engine in accomplishing what would otherwise be laborious tasks.

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C. T. H. B.



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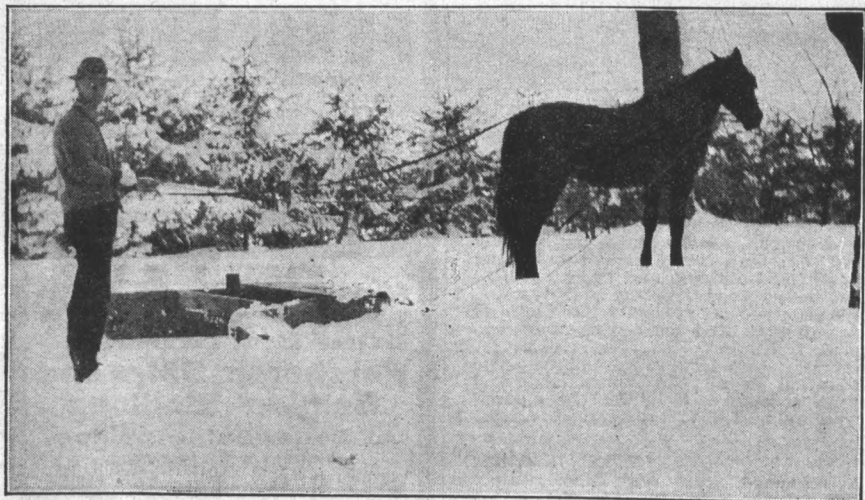
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In Readiness to Clear All the Paths that Are Needed.

machine, but should be given a chance to use his brain as well as his hand.

Farming is somewhat different from most other work in the matter of supervision. The help is generally scattered so that a foreman can not control and supervise help, as in a shop or construction gang. The problem is quite different. For this reason an intelligent class

there surely will be snow next winter and all the winters to come. Until you have a snowplow you cannot understand what a saving of hard, back-breaking work it is. When the snow is light one horse can do the work easily. Think what it would mean to mother and the girls if you made a good wide path all about under the clothes lines, and to the

LIVE STOCK

PREPARATIONS FOR WINTER.

Culling Out the Unprofitable Animals.

Any discussion of the special topic for November, namely, "Preparations for Winter," would be incomplete if it did not take into account the culling of the flocks and herds maintained upon the farm. Particularly is this true in a season like the present one, when both forage and grain are relatively scarce and high in price. It is an easily demonstrated fact that many of the animals maintained upon the average farm under average conditions do not make a profitable return to their owner after paying for their keep. This is true with a great deal larger percentage of farm animals under such conditions as prevail this year.

Hence, it would be a wise move on the part of every owner of live stock to not only take an inventory of the amount of feed on hand and make careful calculation as to the quantity of live stock which it may be made to carry through the winter season, but also to make a careful study of the animals in order to determine which ones of them will return a profit for the feeds given them and which ones will not. Those which will not had better be sold at a low, or even a sacrifice price, than to feed them expensive feeds throughout the winter and pocket a loss at the end of the season, even though they might bring a little more money at that time. Whether it be cattle, sheep, hogs, or even horses, this is a very wise course for the farmer to take at this season of the year, and it is a matter upon which a good deal of thought and study can be put to a very good advantage indeed.

A little close figuring, with pencil and paper to insure accuracy, and a good deal of careful study of the capacity of the individual animals will prove especially profitable at this season of the year just at the commencement of an unusually long and expensive winter feeding period, since a close culling of the flocks and herds will be more than ordinarily profitable under the conditions which prevail this year. Not only will present results be more profitable from such a culling, but the prospects of future profit will be proportionately increased, since by eliminating the weaker animals from the breeding flocks and herds, the average quality of the future generations of live stock upon the farm cannot but be materially bettered. This is a preparation for winter which should not be long neglected.

The Water Supply.

Not alone in the culling of the stock, but as well in preparing their winter quarters, can profitable preparations for winter be conducted upon the average farm. One of the first essentials for the well-being and comfort of live stock is the water supply, which, upon the average farm is entirely inadequate to the needs of the stock. In fact, the only adequate and sufficient supply is an automatic supply which will permit the stock to help themselves at any time they may feel inclined to drink. Nor need such an equipment in the stable be expensive. It can be cheaply installed with little expert labor and one season's use will more than repay for its entire cost.

For many years, in his early agricultural experience, the writer carried water from a centrally located tank to small lots of stock in different parts of the barn, with the result, which will usually be found in such cases, that the supply was more or less intermittent. Later a cheap system was installed which provided water in every stable and drinking fountains in every alley in the sheep stable so that all of the stock maintained was able to get water at any time from an automatically regulated supply. This work was very cheaply done and has many times repaid the cost in the better results secured from the live stock. It will be found the same upon any farm and there is little excuse for getting along with an insufficient water supply upon any farm. This is a good season of the year to install it and it may well be considered one of the important details of the preparation for winter, and there are very many other little items of stable and barn equipment which might be mentioned but only the most essential will be touched upon in this article. One of these is stable ventilation.

Light and Ventilation.

Many modern dairy barns are now be-

ing equipped with the King system of ventilation, which can be installed so cheaply that there is no excuse for any new barn being erected without installing this very efficient ventilating system. In fact, it can be installed in old barns very cheaply and to good advantage, but where this is not done some provision should be made for light and ventilation, since most of our older stables and barns are altogether too dark and poorly ventilated.

This may be accomplished by windows which swing in at the top or out at the bottom, in a fairly satisfactory manner, and for sheep stables it is well to have a large door located on a protected side of the stable which may be kept open, a light gate being inserted to turn the sheep, as very good ventilation can be secured in this manner, where no other windows or doors are left open to permit a draft through the building. In fact, any method which will permit the taking of sufficient fresh air into the stable without causing a noticeable draft, would give a fairly adequate degree of ventilation. Ventilation and sunlight are two very important factors in animal comfort and health.

There are a good many minor points in stable equipment which need attention and which will be far more apt to receive attention at the hands of the average farmer than will these three which have been specifically mentioned, viz., the water supply, stable ventilation and the presence of sufficient windows for the admission of sunlight. But these three things should not be neglected where the most profitable results are desired for maintaining the live stock during the winter season.

THE PERFECT HOG.

Would you please explain through the columns of your paper what constitutes an ideal type of O. I. C. hog; also of the Berkshire and Poland China breeds.

Clinton Co. A. H. B.
We do not grow perfect hogs. Such animals exist only in the imagination of men. The different breeding associations adopt standards of excellence and the publication of these standards will furnish the best reply to the query of our correspondent.

A standard of excellence, description and scale of points, for judging swine were first formulated in 1875, at Springfield, Ill., by the American Berkshire Association, for the Berkshire breed, and they are as follows:

Color:—Black, but skin and hair occasionally showing tinge of bronze or copper color, with white on face, feet, tip of tail and occasional splash on arm	4
Face and Snout:—The latter short, broad and meaty, the former fine, well dished and broad between the eyes	9
Eyes:—Very clear, rather large, dark hazel or gray	2
Ears:—Sometimes almost erect, but generally inclined forward, medium size	4
Jowl:—Full and heavy, running well back on neck	4
Neck:—Short and broad on top	4
Hair:—Fine and soft, inclined to thickness in male	3
Skin:—Smooth and pliable	4
Shoulder:—Smooth and even on top and in line with side, thick through the chest	7
Back:—Broad, long and straight, or slightly arched, ribs well sprung	10
Side:—Deep and well let down; straight side and bottom line	6
Flank:—Well back and low down on leg, making nearly a straight line with lower part of side	5
Loin:—Full and wide	8
Hams:—Deep and thick, extending well up on back and holding thickness well down to hock	10
Tail:—Well up on line with back, not too fine, short or tapering	2
Legs and Feet:—Short, straight and strong, set wide apart, with hoofs nearly erect and capable of holding good weight	8
Size and Symmetry:—Size all that is possible without loss of quality or symmetry, with good length	7
Style:—Attractive, spirited, indicative of thorough breeding and constitutional vigor	3
Total	100

Following are the standard of excellence, detailed description and scale of points for Poland-Chinas, adopted by the National Association of Expert Judges:

Head:—Even and smooth between and above the eyes. Slightly dished, tapering evenly and gradually to near end of the nose. Broad lower jaw, head inclined to shortness, but not enough to give the appearance of stubby nose. In male a masculine expression	4
Eyes:—Full, clear, prominent and expressive	2
Ears:—Attached to head by a short, firm knuckle, giving free and easy action. Standing up slightly at the	

base to within two-thirds of the tip, where a gentle break or drop should occur; in size neither too large nor too small, but even, fine, thin, leaf-shaped. Slightly inclined outward
 2 |

Neck:—Short, wide, even, smooth, well arched. Rounding and full from poll to shoulder, with due regard to the characteristics of the sex
 2 |

Jowl:—Full, broad, deep, smooth and firm, carrying fullness back near to point of shoulders and below line of lower jaw, so that lower line will be as low as breastbone when head is carried up level

Shoulders:—Broad, oval at top, showing evenness with back and neck, good width from top to bottom and even smoothness extending well forward

Chest:—Large, wide, deep and full; even underline to shoulder and sides with no creases; plenty of room for heart and other organs; large girth. Brisket, smooth, even and broad; wide between legs and well forward, showing in front

Back and Loin:—Broad, straight or slightly arched, carrying same width from shoulder to ham, surface even, smooth, free from lumps, creases or projections; not too long but broad on top, indicating well sprung ribs, should not be higher at hip than at shoulder and should fill out at junction with side so that a straight edge placed along at top of side will touch all the way from point of shoulder to point of ham; should be shorter than lower belly line

Sides and Ribs:—Sides full, firm and deep, free from wrinkles, carrying size down to belly; even from ham to shoulder; ribs of good length, well sprung at top and bottom

Belly and Flank:—Belly broad, straight and full, indicating capacity and room, being about the same or on a level at the flank with underline of chest. Underline straight or nearly so, and free from flabby appearance

Hams and Rump:—Hams broad, full, deep and long from rump to hock. Fully developed above and below; wide at point of hip, carrying width well down to the lower part of the hams. Fleishy, plump, rounding fullness perceptible everywhere. Rump rounding and gradually sloping from loin to root of tail. Broad and well developed all along from loin and gradually rounding to the buttock; lower front part of ham should be full, and stifle well covered with flesh. Even width of ham and rump with the back, loin and body. Greater width in females not objectionable

Legs and Feet:—Legs medium length, set well apart and squarely under body, tapering, well muscled and wide above the knees and hock; below hock and knee round and tapering, capable of sustaining weight of animal in full flesh without breaking down; bone firm and of fine texture; pasterns short and nearly upright. Feet firm, short, tough and free from defects

Tail:—Tail of medium length and size, smooth and tapering well, and carried in a curl

Coat:—Fine, straight, smooth, lying close to and covering the body well, and evenly distributed

Color:—Black, with six white points—tip of tail, four white feet and white in face, on nose or point of lower jaw; all to be perceptible without close examination; splashes of white on jaw, legs or flank, or a few spots of white on the body not objectionable

Size:—Large for age. Condition, vigor and vitality to be considered. There should be a difference between breeding animals and those kept or fitted for show, of at least 25 per cent in size. In show condition, or when fat, a two-year-old boar should weigh not less than 600 pounds, and a sow not less than 500 pounds. Boars one year and over, 400 pounds, sows 350 pounds. Boars 18 months, 500 pounds, sows 450 pounds. Boars and sows six months old not less than 160 pounds. All hogs in just fair breeding condition just one-fourth less for size. The keeping and chance that a young hog has cuts quite a figure in his size and should be considered, other points being equal. Fine quality and size combined are desirable

Action and style:—Action vigorous, easy and graceful. Style attractive, high carriage; and in males testicles should be prominent and of about the same size, and not too large and pouchy

Condition:—Healthy; skin clear of scurf scales and sores; soft and mellow to the touch; flesh fine, easily laid on, and free from lumps and wrinkles; hair soft and lying close to the body; good feeding qualities

Disposition:—Lively, easily handled and seemingly kind and responsive to good treatment

Symmetry or adaption of points:—The adaption of all the points, size and style combined to make the desired type or model

Total

A standard scale and description for "O. I. C." swine, adopted by the Ohio Improved Chester White Swine Breeders' Association, reads:

Color:—White. Black spots in hair disqualify, but blue spots in hide (freckles), while objectionable, do not argue impurity	2
---	---

Head and Face:—Head short and wide; cheeks neat (not too full); jaws broad and strong; forehead medium, high and wide, face short and smooth; wide between the eyes which	
---	--

Warranted to Give Satisfaction.

Gombault's Caustic Balsam

Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address The Lawrence-Williams Co., Cleveland, O.

Mc Mahon's Absorbent

Has No Equal for Cure of

\$1.00 injured tendons, bone-spavin, curbs, splints, ringbone, sidebone, thoroughpin, bog-spavin, windpuffs and other enlargements.

Quick, sure and lasting cure guaranteed—money back if it fails. Mail \$1.00 for this great remedy today.

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"It's Portable." made of the best Corrugated Galvanized Steel with an all-steel frame. Guaranteed. Protects the Sows and Saves the Pigs!
A warm, dry, sanitary, ventilated house, 5 ft. wide, 6 ft. long and 4 1/2 ft. high. Pays for itself every season.
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All registered and young. Fifty head to select from.

100 Head Belgian & Percheron Stallions and Mares.

Direct from breeding farms of Belgium and France, all high class draft stock with quality and size. Among them are many European prize-winners. If you are in the market for a stallion or mare it will be to your advantage to see our horses and get our price. We will sell you a better horse for less money than anyone else. We guarantee every horse and back up our guarantee. Don't fail to see our stock before you buy. Send for our catalog and Government Book on the care of horses.

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DUNHAM'S PERCHERONS

Our summer importation, in our estimation the best lot of horses we have ever had at Oaklawn, has arrived. Numerous important prize-winners are included, then the high average is the main thing, as every animal would be a credit in any herd. Write us, **DUNHAMS, Wayne, Illinois.**

BELLS' DRAFT STALLIONS Percheron, Shire and Belgian Stallions

At reasonable prices. Write us what you need.

BELL BROS., Wooster, Ohio.

JACKS and MULES
Raise mules and get rich. 18 Jack and mule farms under one management, where can be seen 500 head fine large jacks, jennets and mules, 14 to 17 hands high. Good ones. Stock guaranteed. Write for prices today. Address **Krekler's Jack Farm West Elkton, Ohio**
Branch Barn—Clinton, Indiana

should be prominent, clear and bright, and free from surrounding fat; nose neat, tapering and slightly dished.... 5

Ears:—Medium size, soft, not too thick, not clumsy, pointing forward and slightly outward, drooping gracefully and fully under control of the animal

Brisket:—Full, well let down and joined well to jaw in line with belly..... 3

Jowl:—Smooth, neat, firm and full, carrying fullness well back to shoulders and brisket when head is carried up level..... 2

Neck:—Wide, deep, short and nicely arched; neatly tapering from head to shoulder..... 3

Shoulders:—Broad, deep and full, extending in line with side, and carrying size down to line of belly..... 6

Chest and Heart Girth:—Full around the heart and back of the shoulders; ribs extending well down; wide and full back of fore legs..... 10

Back:—Broad, straight or slightly arched and of uniform width; free from lumps or rolls; same height and width at shoulders as at ham.... 7

Sides:—Full, smooth and deep, carrying size down to line of belly; even with line of ham and shoulder..... 5

Ribs:—Long; well sprung at top and bottom, giving animal a square form

Loin:—Broad and full..... 7

Belly:—Same width as back; full and straight; drooping as low at flank as at bottom of chest; line of lower edge running parallel with sides..... 4

Flank:—Full and even with body..... 2

Ham and Rump:—Broad, full, long, wide and deep, admitting of no swells, buttocks full and neat; stifle well covered with flesh, nicely tapering toward the hock; rump slightly rounding from loin to root of tail, same width as back, making an even line with sides..... 10

Tail:—Small, smooth, nicely tapering; root slightly covered with flesh, carried in a curl..... 2

Legs:—Medium length; strong and straight, set well apart and well under body; bone of good size, firm and well muscled; wide above knee and hock, round and tapering below knee and hock, enabling the animal to carry its weight with ease; pasterns short and nearly upright..... 5

Feet:—Short, firm and tough, animal standing well on toes..... 8

Coat:—Fine; either straight or wavy, with preference for straight; evenly distributed and covering the body well; nicely clipped coat no objection

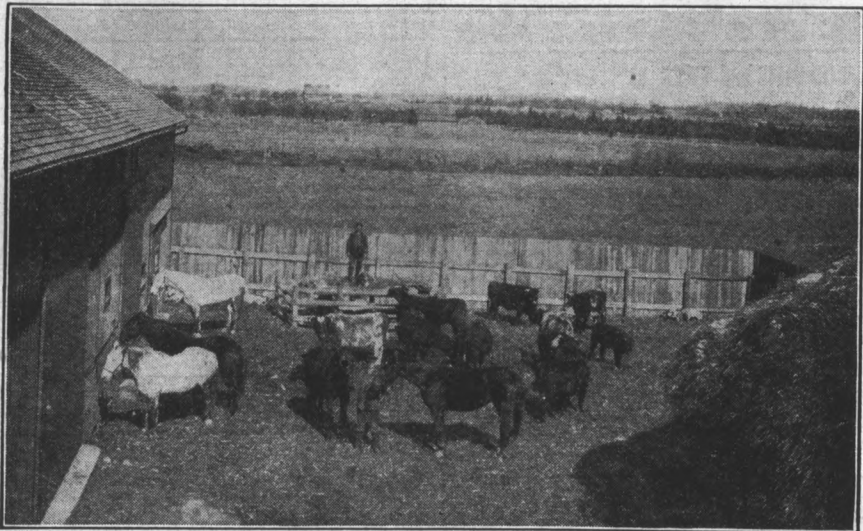
Action:—Easy and graceful; high carriage; active; gentle and easily handled. In males testicles should be readily seen and of same size and carriage..... 8

Symmetry:—A fit proportion of the several parts of the body to each other, forming a harmonious combination.. 4

Total 100

UNWISE ECONOMY IN HANDLING LIVE STOCK.

For several days the ground has been white with snow yet one sees cattle out in the pastures, picking for the grass which is frozen and at least partly bur-



A Protected Yard Increases the Comfort of Stock and Saves on the Feed Bill.

ied in snow, so that they must get considerable snow along with the frozen grass. To say nothing of the damage to pastures and meadows from the tramping and feeding of animals at this season—a time when the grass roots need all the protection they can get—does the stock get enough nourishment from what they pick up to offset the feed saved at the barn? I do not think so. Such stock, to my mind, would be much better off in a stable or shed, or a protected yard. Animals that have spent the day in ranging the fields, eating frozen feed and becoming chilled by cold winds, will need as much or more feed at night, if they are to be kept in good flesh, than they would if kept out of the wind during the day. The more comfortable animals are kept during cold weather, the less food will they consume and the more profit will they bring to the owner. Do not try to save feed at the beginning of winter by allowing stock to range the fields. It doesn't pay.

Eaton Co. APOLLOS LONG.

NATIONAL ASSOCIATION MEETINGS TO BE HELD DURING THE INTERNATIONAL.

Monday, December 4.
Percheron Society of American, Exposition Hall, 7:30 p. m.; American Tamworth Swine Record Assn., Red Cross Hall, 8:00 p. m.

Tuesday, December 5.
International Live Stock Exposition Assn., Assembly Hall, 7:30 p. m.; American Milch Goat Record Assn., Red Cross Hall, 2:00 p. m.; American Shire Horse Assn., Exposition Hall, 7:00 p. m.; O. I. C. Swine Breeders' Assn., La Salle Hotel, 7:00 p. m.; American Shropshire Assn., Wool Growers' Hall, 7:30 p. m.; Hampshire Swine Record Assn., Association Hall, 8:00 p. m.; American Oxford-Down Record Assn., Registry Office, 8:00 p. m.; American Rambouillet Sheep Breeders' Assn., Red Cross Hall, 8:00 p. m.; American Berkshire Assn., Assembly Hall, 8:15 p. m.

Wednesday, December 6.
American Poland China Record Assn., Exposition Hall, 10:00 a. m.; Continental Dorset Club, Wool Office, 2:00 p. m.; Red Polled Cattle Club of America, Red Cross Hall, 2:00 p. m.; American Duroc-Jersey Swine Breeders' Assn., Kaiserhof Hotel, 7:00 p. m.; American Assn. of Imp. & Br. of Belgian Draft Horses, Exposition Hall, 7:30 p. m.; American Aberdeen-Angus Breeders' Assn., Grand Pacific Hotel, 8:00 p. m.; American Hampshire Sheep Assn., Wool Growers' Hall, 8:00 p. m.; American Shorthorn Assn., Grand Pacific Hotel, 8:00 p. m.; National Lincoln Sheep Breeders' Assn., Red Cross Hall, 8:00 p. m.

Thursday, December 7.
American Galloway Breeders' Assn., Galloway Office, 7:30 p. m.; American Southdown Breeders' Assn., Wool Growers' Hall, 8:00 p. m.; Polled Durham Breeders' Assn., Grand Pacific Hotel, 8:00 p. m.; National Assn. of Stallion Registry Boards, Red Cross Hall, 8:00 p. m.

THE JUDGING PROGRAM.

College Department.
Saturday, Dec. 2.—Students' judging contest; judging horses, cattle, sheep and swine.

Cattle Department.
Monday, Dec. 4.—Pure-bred and grade Bullocks; college and experiment station stock; Clay-Robinson specials.

Tuesday, Dec. 5.—Aberdeen-Angus breeding classes; Red Polled breeding classes; carloads fat cattle; "Short-Fed Special" carloads.

Wednesday, Dec. 6.—Shorthorn breeding classes; Aberdeen-Angus breeding classes, concluded; Hereford breeding classes.

Thursday, Dec. 7.—Hereford breeding classes; Shorthorn breeding classes, concluded; Galloway breeding classes.

Friday, Dec. 8.—Polled Durham breeding classes; Galloway breeding classes, concluded.

Sheep Department.
Monday, Dec. 4.—Pure-bred, grade and cross-bred wethers; college and experiment station stock; Clay-Robinson specials.

Tuesday, Dec. 5.—Shropshire breeding classes; Dorset breeding classes; carloads native and range sheep.

Wednesday, Dec. 6.—Rambouillet

A FEW BIG LEADERS IN HORSE BLANKETS AND LAP ROBES

From Our Latest and Greatest Harness Catalog

"Aberdeen," Burlap Body, Fabric Lined Stable Blanket.

An extra wide blanket with two 3½-inch heavy web surcingle, long stay, bound front, snap fastening. Size, 76 inches long; deep body. Weight, about 7 pounds.

No. 10G64543¾
Price, each...\$1.75



"Don Carlos" Burlap Stable Blanket.

A big special at \$1.00 is this burlap, blanket lined stable blanket, made with snap front, two surcingle and short stay. Size, 72 inches long. Weight, about 4½ pounds.

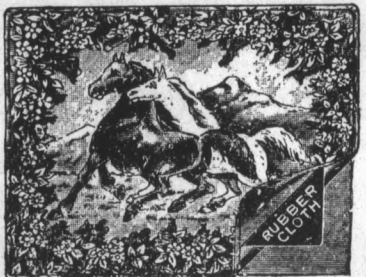
No. 10G64526¾



Double Plush Robes.

No. 10G63553¾ Double Plush Robe. Fancy two horse pattern on one side, plain black on the other. Size, 50x60 inches. Weight, about 6½ pounds. Price, each.....\$4.95

No. 10G63554¾ Same as above, but with rubber interlining, storm and windproof. Weight, about 9 pounds. Price, each.....\$5.95



"Altman" Striped Blankets.

Strongly made, gray bodied blankets. Fancy color striped body.

No. 10G64372¾
Size, 76x76 inches. Weight, about 4 pounds. Price, each\$1.00

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No. 10G64383¾ Size, 84x90 inches. Weight, about 8 pounds. Price, each \$1.75

The harness you will want for spring work. A full line of it is shown in our big, handsomely illustrated Harness Catalog, all quoted to you at manufacturers' prices, one-third less than retail.

Whether you buy our goods or not we are anxious that you should get this big book, the most complete catalog of harness, saddlery, horse blankets, plush robes, fur robes and auto robes. No guessing what our robes look like, as they are illustrated in their actual colors. Send for a copy.

Sears, Roebuck and Co., Chicago, Ill.

TWELFTH INTERNATIONAL LIVE STOCK EXPOSITION

December 2nd to 9th.

Union Stock Yards, Chicago.

The World's Greatest Live Stock Show.

The International Horse Show, embracing all that is paramount in the horse world, will be held evenings during the exposition. Thirty National Live Stock Association Conventions. Premiums over \$75,000. Entries more than 11,000 animals. Grand Carload Exhibit. Numerous new attractions.

Daily Auction Sales of Pure Bred Live Stock.

Wednesday, December 6th, 1 p. m.
50 Choice Aberdeen-Angus.
For Catalog write Chas. Gray, Secy., U. S. Yards, Chicago.

Thursday, December 7th, 1 p. m.
50 Selected Shorthorns.
For Catalog write B. O. Cowan, Asst. Secy., U. S. Yards, Chicago.

Friday, December 8th, 1 p. m.
50 High Class Herefords.
For catalog write R. J. Kinzer, Secy., Kansas City, Mo.

Shropshire Sale—Wednesday, December 6th, 10 a. m. For further information apply to J. M. Wade, LaFayette, Indiana.

Also on Thursday, December 7th, at 1 p. m., the American Hampshire Swine Association will hold a sale. For Catalog write E. C. Stone, Secy., Peoria, Ill.

Education, Entertainment, Pleasure Trip—ALL IN ONE.
LOWEST RATES ON ALL RAIROADS.

Nelson Submerged Tank Heater



This heater is so constructed that the entire heating surface is under the water. Thousands in use in 22 states. 2 weeks free trial. Send for Price and Catalog NELSON MFG. CO., 2 Wall St., Deerfield, Wis

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HORSE BLANKETS
You know that the "PEER-HO" Blankets are FULLY guaranteed. The mill that produces the "PEER-HO" Blankets makes none but Wool blankets. They are handsome in design, full weight and good size. A good horse Deserves the best blanket you can buy. Buy "PEER-HO" Horse Goods and have satisfaction guaranteed. If your dealer does not carry our line, ask him to send for our price list.

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CURE THAT SPAVIN

—or that Curb, Splint, Ringbone or other blemish with Kendall's Spavin Cure. Mr. Martens of Shawano, Wis., writes this about Kendall's Spavin Cure

"I have been using your Spavin Cure for years for Spavin and Ringbone, and would not be without it, because it never failed." Let us send you other letters. Get a bottle of Kendall's at once. You may need it any day. At your druggists \$1 a bottle, 6 for \$5. Ask for "Kendall's Spavin Cure"—Free, or write to Dr. B. J. Kendall Co., Enosburg Falls, Vermont, U.S.A.

THICK, SWOLLEN GLANDS

that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be removed with

ABSORBINE

also any Bunch or Swelling. No blister, no hair gone, and horse kept at work. \$2 per bottle, delivered. Book \$1 free. ABSORBINE, JR., Liniment for manking. Reduces Gout, Tumors, Wens, Painful Varicose Veins, Ulcers. \$1.00 and \$2.00 a bottle at dealers or delivered. Book with testimonials free. W.F. YOUNG, P.D.F., 268 Temple St., Springfield, Mass.

VETERINARY

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

Stocking.—I have a mare that stocks in both hind legs when allowed to stand in barn in open stall over night. This mare also has heaves. Would bandaging her legs help her and, if so, how tight should bandages be applied? H. B. S., Lakeview, Mich.—Stocking is not a disease but a result of other ailments, or a torpid condition of absorbent system. It may be result of weakness. Give a tablespoonful of the following compound powder at a dose in feed three times a day: Powdered sulphate iron, ground gentian, ginger and nux vomica, equal parts by weight, and mix thoroughly. Bandages applied not too tight and not left on too long are helpful in these kind of cases. A horse that has heaves should be fed no clover or musty, dusty, badly cured fodder of any kind and not allowed to eat too much bulky food.

Looseness of Bowels.—I have a three-months-old suckling colt that commenced to scour three days after it came in from pasture. Have been feeding mare good dry hay, cornstalks, timothy, with equal parts by measure of corn and oats. The second time his bowels became so loose I changed his mother's roughage to timothy hay; colt also has good timothy hay and crushed oats. Colt does not appear to be sick. G. W. G., Rapid City, Mich.—Give colt 20 grs. sub-nitrate of bismuth at a dose four times a day. I also suggest that you change colt's feed and perhaps its water supply.

Not Tuberculosis.—The cream from milk of one of my cows seems to be tough and stringy-like; for this reason I suspect this cow might have tuberculosis. She seems perfectly healthy, has good appetite and is lively. S. S., Lakeview, Mich.—Your cow shows no symptoms of tuberculosis, but if you will salt her well, change her feed and possibly your manner of keeping the cream for milk, everything will be all right.

Light Milker—Bitter Milk.—I would like to know what can be done for a four-year-old cow that is only giving one quart of milk at a mess. She seems to be healthy, is in fair condition, is fed good hay and corn fodder, besides fed 4 qts. midding a day. She was dehorned about six weeks ago, caught cold, but is now all right. She will be fresh in April, and I might add that her milk occasionally tastes bitter. B. E. T., Petoskey, Mich.—A great many cows that are pregnant seem to fall off in their milk supply four months before coming fresh. Is your cow not naturally a light milker? She is perhaps an unprofitable dairy cow.

Chronic Garget.—I have a valuable Jersey cow that very often gives thick,ropy milk. First one quarter will be affected, then another, bag swells, is feverish, swelling soon goes down to appear shortly in another portion of bag. She will give thick milk from one teat for two or three milkings and milk supply from this quarter decreases. She came fresh some six weeks ago, is in good condition and seems in perfect health. She gave thick milk at different times last year. I would like to have your opinion regarding this cow. S. H., Ludington, Mich.—Your cow suffers from an infected udder, her ailment being of a chronic character makes the case a very difficult one to cure. Milk such as she gives is unwholesome and unfit for human food; besides, she is unprofitable for dairy purposes. To effect a cure her udder should be irrigated with antiseptic solutions and in order to do this you would require a return flow syringe; furthermore, she should be given medicine for several weeks. All things considered, she had better be dried and fattened.

Scurvy.—Young sow is troubled with scurvy. Would like to know what to do for her. She is fed cooked potatoes, pumpkins and turnips, besides giving her milk. L. F., La Salle, Mich.—Give her two-thirds of a teaspoonful of cooking soda at a dose in feed two or three times a day. Apply 1 part sub-nitrate of bismuth and 10 parts vaseline to scurvy parts twice a week.

Weak Orphan Colt.—About September 1 my mare gave birth to a colt which she refused to own. I have fed this colt cow's milk with a little sugar added, besides, she has had clover hay and oatmeal before her all the time. Some time ago she began to show weakness in both hind fetlocks, so much so that joints touched ground and her fore legs are showing same symptoms. I would like to know what can be done for her. T. H. S., Freeland, Mich.—You seem to have managed the feeding of your colt fairly well. It is no easy task to raise an orphan colt and have them keep strong and mature evenly. I have raised orphan colts on cows' milk but have always added not less than one-quarter water and some sugar, feeding it to them at blood temperature; and I have also thought by thoroughly cooking the meal they thrive better than if fed to them raw; especially the first two or three months. Good care and plenty of milk and meal will do more to strengthen your colt than drugs.

Loeser Bros., of Ligonier, Ind., importers of Belgian, Percheron and Shire horses, announce that their exhibit at the International Horse Show, at Chicago, Dec. 1-9, will be located in Barn 12.

STALLIONS

A fine lot of

Percherons and Belgians

with plenty of

Bone, Quality, Style and Action.

Good Ones, the drafty kind, at prices which defy competition. Write us for particulars.

GEO. W. SOUERS & SONS,
Huntington, Indiana.

Hides Tanned for Robes, Coats and Rugs

Send us your Cattle or Horse Hides or any skins that you may have, and we will tan these for you as they ought to be tanned. We have the largest and best plant in the country for doing this work. We are coat and robe makers. Our price are right, work Guaranteed. Low prices.

Send for circular, also catalog.
HUGH WALLACE COMPANY,
DETROIT, MICHIGAN.

White Holland Turkeys! Large, hardy, healthy, from high scoring, prize-winning stock. T. B. & E. H. McDonagh, Burt, Mich.

FOR SALE—Just what your boy wants for Christmas, 2 Shetland pony horse colts, 1 black & white and 1 black. Price \$60 each. J. A. Mitter, Stockbridge, Mich.

BREEDERS' DIRECTORY.

CATTLE.

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

THREE choice **ABERDEEN-ANGUS** 2-year old bulls for sale at from \$75 to \$125. **THE CLOVER BLOSSOM FARM, Port Austin, Mich.**

AYRSHIRES—One of foremost dairy breeds: young bulls and bull calves for sale. Berkshire swine. Poultry. All pure bred. Michigan School for Deaf, Flint, Mich.

GUERNSEYS—Imported cow, 5 heifer 1 bull calves, of extra breeding for sale. Come and see them. **WILL W. FISHER, Watervliet, Mich.**

3 Guernsey Bulls—4 years, 9 months, and 4 months. Best breeding. Priced low for quick sale. **Thompson & Barnett, Sand Lake, Mich.**

For Sale—Two young polled Durham Bulls and five Durham Heifers and Cows. \$50 each if taken quick. **J. E. CLARK, Milford, Mich.**

"Top-Notch" Holsteins

A fine young bull from an Advanced Registry dam. **Pietertje Korndyke De Kol** Prince No. 75962. Born Oct. 11, 1910. Sire **Willowbridge Bos**. Dam, **Marion Pride Pietertje De Kol**, who has an official record at 2 years as follows: Milk 1 day, 53.4 lbs.; Milk 7 days, 352 lbs.; Butter 7 days 13.73 lbs. She gave 5565 lbs. of milk in 153 days at 2 years old, at which time she was sold to a Wisconsin breeder for a high price. Her dam has an official record of milk 1 day, 90 lbs.; milk 7 days, 300.3 lbs.; butter 7 days, 24.21 lbs. and gave 14992 lbs. milk in 352 days. His sire is a grandson of **Beauty Pietertje** who has an official record of 30.51 lbs. butter in 7 days and was the first 30-lb. cow of the breed to produce a 30-lb. daughter, and traced to **Belle Korndyke** who is the dam of **Pietertje Korndyke**. He comes of large producers on both sides, is a fine individual, of good size, very light colored. Price \$100. **MCPHERSON FARMS CO., Howell, Michigan.**

MAPLE AVENUE STOCK FARM

Nov. Bull Special

will tell all about 20 Bulls that are for sale. DON'T buy a bull until you have read the Nov. Special, which is yours for the asking. Help me to sell this lot in November by buying ONE. **L. E. CONNELL, Fayette, Ohio.**

HOLSTEIN BULLS

FOR SALE

Registered bulls from four to ten months old for sale that are closely related to Hengerveld De Kol, De Kols 2nd Butter Boy 3rd, and Colantha 4th of Johanna. The dams are heavy milkers and mostly in the A. R. O. Prices reasonable. Send for list. **Bigelow's Holstein Farm, Breedsville, Mich.**

Purebred Registered HOLSTEIN CATTLE
The Greatest Dairy Breed
Send for FREE Illustrated Booklets.
Holstein-Friesian, Asso., Box 164, Brattleboro, Vt.

Thirteen High Grade Holstein Cows. They are young and right in every way and heavy milkers. They tested 4% for October. Three are fresh, the others bred to registered bull and due soon. Price \$900.00. **C. C. COREY, New Haven, Mich.**

HOLSTEIN BULL Calf, sired by best **Bulter Boy**—54 daughters in Advanced Registry—out of sister to **World's Champion** bull **Sarcastic Lad**. She has official record of 224 lbs. butter in 7 days, and sire's dam a record of over 25 lbs. A bargain at \$50. **C. D. WOODBURY, Lansing, Michigan.**

Holstein-Friesian Cattle—Special Prices on young bulls at home ready for service. **W. B. JONES, Oak Grove, Mich.**

Bull Calf for Sale—Throughbred Holstein, best breeding, four months old. Handsome in State. Seven-eighths white, a beauty. only \$50. **ROUGEMONT FARMS, Detroit, Mich.**

FOR SALE—Reg. St. Lambert Jerseys, Cows and Bulls for sale. Producing stock. **C. A. BRISTOL, Fenton, Michigan.**

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

Jersey Bull Calf

Dropped Dec. 5, 1910.

Sire, Marston's Interested Prince

Has three daughters in Register of Merit with yearly records.

He is a son of Imported Interested Prince, 18 daughters in Register of Merit.

Dam is No. 773 Register of Merit 11, 115 lbs. Milk, 511 lbs. Butter Fat, equal to 602 lbs. Butter in one year. 56 lbs. milk in one day.

Winner in Show Ring, also Competitive Dairy Test, Michigan State Fair. For price address

T. F. MARSTON,
Box L, Bay City, Michigan.

For Sale, Jersey Bull Calf, born Feb. 4, '11; dam, Register of Merit cow. Grand sire, Register of Merit bull. **WATERMAN & WATERMAN, Ann Arbor, Mich.** (Successors to Murray-Waterman Co.)

LILLIE FARMSTEAD JERSEYS.

Cows all in yearly test. Four Bulls old enough for service. Several splendid Bull Calves. A few Heifers and Heifer Calves. I guarantee satisfaction or money refunded.

COLON C. LILLIE, Coopersville, Michigan.

Holstein Bulls from 2 to 12 months, grand sons of Hengerveld De Kol, King Segia, King Veeman De Kol, and King of the Hengervelds—all from grand old dams. Prices very low, breeding considered. **Long Beach Holstein Farm, Augusta, Mich.**

FOR SALE—3 yearling Holstein-Friesian bulls, also bred heifers \$150 to \$200 each. Bull calves \$40 to \$60. 33 years a breeder. Photos and pedigrees on application. **W. C. JACKSON, South Bend, Ind., 719 Rex St.**

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

Dairy Bred Shorthorns—a few bred heifers for cash or good note. **J. B. HUMMEL, Mason, Mich.**

JERSEY BULLS FOR SALE

Sired by **Temisla's Interested Prince 71648**, whose dam made 733 lbs. butter in one year, authenticated test. Choice individuals. Prices Reasonable.

BROOKWATER FARM, ANN ARBOR, MICH., R. F. D. 7.

Red Polled Bull Calves

6 to 7 months old, \$40 to \$50. Cows \$50 to \$75. Also Percheron Stallion 3 years old, fine style, a big bargain at \$250. **E. BRACKETT & SON, Allegan, Mich.**

FOR SALE—2 Yearling RED POLLED BULLS, price \$60 each if taken now. **J. M. CHASE & SONS, Ionia, Mich.**

Oakdale Stock Farm—Shorthorn Cattle, Shropshire Sheep, a few young bulls for sale. **W. J. LESSITER, Belding, Mich.**

SHEEP.

20 Choice, young, large, heavy fleeced **Delaine Rams** Write wants to **S. H. SANDERS, Ashtabula, Ohio.**

Foundation Flock—A great bargain in Hampshire Down Sheep—best general purpose sheep on earth. Four registered ewes and ram for \$50. Also few young rams at \$10 to \$15 each. **C. D. WOODBURY, Lansing, Michigan.**

Leicesters—Yearling and ram lambs from Champion flock of Thumb of Mich. Also select Berkshire swine. **Elmhurst Stock Farm, Almont, Mich.**

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

OXFORD RAMS and EWES bred by and ewes bred to imported rams, for sale. Write **B. F. MILLER** or **G. L. SPILLANE, Flint, Mich.**

OXFORD DOWN RAMS FOR SALE—yearlings and lambs. Will sell a few aged ewes at attractive prices. **S. E. GILLET, Ravenna, Ohio.**

Special Prices on 25 **RAMBOUILLET** Breeding Ewes, 13 Ewe Lambs, all registered. **IRA B. BALDWIN, Hastings, Mich.**

Rambouillet Rams—Good ones at farmers' prices. Also ewes and ewe lambs. **A. E. GREEN, Orchard Lake, Mich. Bell phone.**

Reg. Rambouillets—Wish to close out both sexes. All ages, low price. Farm—2 1/2 miles E. Morrice, on G. T. R. R. and M. U. R. **J. Q. A. COOK.**

Oak Hill Stock Farm

VON HOMEYER RAMBOUILLET RAMS at farmers' prices for the next 90 days. Large, plain, heavy fleeced. **C. E. LOCKWOOD, Washington, Mich.**

MAPLERIDGE SHROPSHIRE—For sale the Imp. ram, The Manager, and yearling rams and ewes sired by this noted ram. **H. Stewart, Lennon, Mich.**

For Sale—Eight choice **Shropshire Yearling Ewes** cheap. **JONES & MORRIS, Flushing, Michigan.**

SHROPSHIRE registered ram lambs \$12 each. Also a few O. I. C. Boars for sale. **C. J. THOMPSON, Rockford, Michigan.**

Shropshire Hall Stock Farm has a few choice for sale. **L. S. DUNHAM & SONS, Concord, Mich.**

The Maple Shropshires—We have for sale 30 yearling rams, and our 3-year-old stock ram, bred by **Davison** and sired by **British Yeoman**. **E. E. LELAND & SON, Route No. 9, Ann Arbor, Mich.**

Shropshire Bargains: EWES and RAMS—Forty big, strong well covered yearling rams from imported sires. Satisfaction guaranteed. **J. E. OTTAWAY & CO., Flushing, Mich.**

Shropshire Rams for Sale. **DAN BOOHER, R. No. 1, Marion, Mich.**

SHROPSHIRE yearling Rams and O. I. C. Spring Boars & Sows. One Yearling Boar, Shropshire ewe lambs later. **E. E. BEACH & SON, Brighton, Mich.**

Shropshires at farmers' prices. Have a fine bunch of yearling and ram lambs, also a few young breeding ewes. **HARRY POTTER, Davison, Mich.**

Polled Delaine Rams for Sale. **F. L. BROKAW, Eagle, Michigan.**

HOGS.

Berkshires—Bred sows, bred gilts and boars ready for service. The best of breeding, splendid individuals with fancy heads, at reasonable prices. **C. C. COREY, New Haven, Michigan.**

FOR SALE, BERKSHIRES—2 boars & 3 gilts farrowed in June also a choice lot of Aug. and Sept. pigs, sired by Handsome Prince 3d & Marion King. **A. A. PATTULLO, Deckerville, Mich.**

Berkshires—Buy a service Boar now, cheap. Other stock also for sale. **C. S. BARTLETT, Pontiac, Mich.**

PURE O. I. C's—Bred from prize-winners and strains, the quick growth and large type. Both sexes, not akin, this spring farrow. Call or write. **F. A. C. Schweitzer, Montezuma, O.**

O. I. C. SWINE—My herd is chiefly descent of the Royal strain both males and females. Write for Live and Let Live price on pairs and trios, not akin. **A. J. GORDON, R. No. 2, Dorr, Michigan.**

O. I. C's—either sex, March farrow—the large, growthy kind. Right type at farmers' prices. **A. NEWMAN, R. No. 1, Marlette, Michigan.**

O. I. C. SWINE—Males weighing from 175 to 250 lbs. each. Also a very choice lot of gilts. **GEO. P. ANDREWS, Dansville, Ingham Co., Mich.**

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

O. I. C. Boars ready for service. Best quality. Large, growthy type, at farmers' prices. **CHAS. SEVERANCE, Deford, Mich.**

O. I. C's—Boars all sold. Choice young sows weighing 180, also 80 Aug. & Sept. pigs, either sex, pairs not akin. Order early. **Fred Nickel, Monroe, Mich., R. 1.**

OUR Imp. Chester Whites and Tamworth swine won 245 1st at Fairs in 1911. Service boars, also sows bred for spring farrow of either breed that will please you in quality and price. **Adams Bros., Litchfield, Mich.**

Improved Chesters—Young breeders of March, April and May farrow, either sex. A few tried sows for sale when bred. Also Holstein cattle. **W. O. WILSON, Okemos, Mich. Both phones.**

DUROC JERSEYS—Nothing for sale at present. **CAREY U. EDMONDS, Hastings, Mich.**

DUROCS—A few boars and gilts at prices to move them if sold soon. Satisfaction guaranteed. **F. B. COOK, Paris, Mecosta Co., Mich.**

DUROC-JERSEY BOARS of the large, heavy boned type and good in quality, also gilts and pigs for sale. **M. A. BRAY, Okemos, Ingham Co., Mich.**

30 High Class Boars ready for service. Special prices for 30 days. Plenty of growth, style and finish. Satisfaction guaranteed. Come or write. **J. C. BARNEY, Coldwater, Mich.**

FOR SALE—DUROC-JERSEY bred sows, pigs and Shepherd Pups. Express prepaid. **J. H. BANGHART, Lansing, Mich.**

DUROC-JERSEYS—25 fine spring gilts, popular blood lines. Good individuals; 10 fine boars, 5 bred sows due to farrow soon. **JOHN MCNICOL, R. No. 1, North Star, Mich.**

BIG POLAND CHINAS.

We have several spring boars that are ready for service now from our two

Large Boars Big Tom and Big Wonder. The dams of these boars we are offering were from **Happy Wilkes, a 1000-lb hog and Jim Perfection an 800-lb. hog.**

We also have several females. Write us your wants; we will sell them at farmers' prices. **ALLEN BROS., Paw Paw, Mich.**

LARGE TYPE P. C.—Largest in Michigan. Pigs from mammoth sires and sows. Weigh 160 to 175 lbs. at 4 months. My motto: "Not how cheap but how good." Will pay expenses of those who come and do not find what I advertise. **W. E. LIVINGSTON, Parma, Mich.**

BUTLER'S BIG TYPE POLAND-CHINAS—size, bone, quality, 40 big fall boars at \$25; 100 spring pigs \$10 to \$15; 50 fall pigs \$5 each; 50 registered Shrop bucks at \$10 to \$15; 6 reg. Jersey bulls at \$15 to \$25; 50 reg. Shrop ewes at \$10. We are the farmer's friend. **J. C. Butler, Portland, Mich.**

POLAND CHINA SPRING PIGS from large styled stock. Also dairy bred Shorthorns, both sexes, all ages, prices low. **ROBERT NEVE, Pierson, Mich.**

Poland Chinas—Spring and fall pigs of large and medium style, at right prices, either sex. **E. D. BISHOP, Route 38, Lake Odessa, Mich.**

For Sale—Thoroughbred Poland China Swine. Prize winners at State and County Fairs. **W. F. QUIRK, Big Rapids, Michigan.**

POLAND CHINAS—Home of Michigan's Grand Champion sire; large, growthy spring boars and gilts by this great sire; they're priced right. **E. J. MATHEWSON, Nottawa, Mich.**

Poland Chinas—Extra good spring and fall pigs either sex. **L. W. BARNES & SON, Byron, Shiawassee Co., Mich.**

FOR SALE—Poland China boars and sows, Holstein bulls, White Holland Turkeys, Barred Plymouth Rocks, Collie Pups. **L. Birkenstock, Fall River, Wis.**

P. C. BOARS ready for service, heavy boned large type, Prices right, **H. H. Conrad, successor to L. F. Conrad & Son, R. No. 4, Lansing, Michigan.**

P. C. Boars and Fall Pigs of the right type. Also S. C. B. Minore fowls. Northrup and Canada stock. Satisfaction guaranteed. **R. W. MILLS, Saline, Mich.**

Poland Chinas—Bred from large type. Stock all ages, both sexes, at Farmers prices. **W. J. HAGELSHAW, Augusta, Michigan.**

Poland Chinas—Special sale on 1 yearling boar and fall pigs of both sexes. **H. J. LANE, Clare, Michigan.**

Big Type P. C. Boars and Sows sired by Expansion. **A. A. WOOD & SON, Saline, Michigan.**

Three Extra Good Fall P. C. Boars

By Next In Line. 32 spring male pigs ready to ship. I ship O. O. D. and furnish pedigree promptly. If you want good as the best, write me for prices. **WM. WAFFLE, Coldwater, Michigan.**

Mulefoot Hogs—Stock of all ages for sale. Price right. Best quality. Bred sow Sale Feb. 1, at Lima. **G. C. KREGLOW, Ada, Hardin Co., Ohio.**

PURE BRED YORKSHIRES, all ages, both sexes. Cut prices for 30 days on boars old enough for service. **M. O. WILSON, Morley, Mich.**

Lillie Farmstead Yorkshires.

Boars old enough for service. A few bred Sows. Fall Pigs, pairs and trios not akin. I will sell you fall pigs at prices that will surprise you. Satisfaction guaranteed. **COLON C. LILLIE, Coopersville, Mich.**

Large Improved Yorkshires—5 boars for sale. Farrowed July 11. Price reasonable. Address **W. H. Parker, Grand Blanc, Mich.**

ALWAYS mention the MICHIGAN FARMER when you are writing to advertisers.

POULTRY AND BEES

THE INDIAN RUNNER DUCK.

Until within a few years hardly anyone thought of the duck as other than a meat and feather producer. The large white Pekins were the most sought, and no account was made of duck eggs other than for hatching. Within a comparatively short time there has come to the notice of poultrymen a duck which is chiefly useful for egg production. This breed is known as the Indian Runner. It derives the first part of its name from India, its native home, and Runner from the fowl's erect carriage and tendency to run upright, in which respect it differs from any other duck. The fowls are of small size, the drakes weighing from 4½ to 5 lbs., and the ducks about 4 lbs. In color they are fawn and white, and the fanciers desire the fawn to be a clear even color without penciling. Recently pure white ones have been advertised, but the beautiful marking of the fawn and white is much more pleasing. The legs and feet are bright yellow and the bill dark green. The body is long and slender. They grow very quickly, being full grown at the age of ten weeks if properly fed.

In their native land they were bred for eggs, and wonderful stories are told of their performances in this direction. It is only about a dozen years since they were first brought to this country, but they have steadily gained in favor since their introduction. Thus far breeders have had a market for most of their eggs for hatching purposes, but enough have been put upon the market to demonstrate their desirability as a food product. The eggs are white, or a very light green, and half as large again as hen's eggs. They are tender and of good flavor, and dealers who have made a specialty of them have been able to pay their shippers nearly or quite double the price of hen's eggs for them. They are in demand at Easter. But few dealers have been able to handle them, as the breed is not known and kept extensively enough to supply a general market. In small flocks of from ten to twenty the egg record per fowl has run as high as 250 eggs a year. In larger flocks they average 175 to 200 eggs a year. Some breeders state that they continue good egg producers until five years of age, but three years is an absolute certainty.

Being of the same general family as the wild Mallard duck, they are very hardy, and generally easy and satisfactory to raise. It is not necessary that they have water to swim in, and they can be raised in yards enclosed by a two-foot fence. As ducks eat and then drink a few mouthfuls, water deep enough to cover their beaks should be kept within their reach. They do not require warm quarters in winter; a house in which hens would do nothing but shiver is warm enough for them.

If hatched early and well fed these ducks have been known to lay at 4½ months old, and five months is the generally accepted age at which they begin laying. They will lay, except when moulting, from this time on. Ducks grow better and lay better, when grown, if a considerable portion of their food is of a vegetable nature. This is more especially true of those confined in yards. Those on range gather their own green food in summer and only require grains, such as corn or wheat, in limited quantities. A meat ration is fully as beneficial to ducks as to chickens. Ducks in yards, if fed wholly on grain products, are liable to over-eat and die from apoplexy. A mash composed of half clover or vegetables is much more like their natural diet, and much more healthful. They require all they will eat in order to produce the maximum number of eggs, but it needs to be a balanced ration. Watch a duck as he forages for himself. He gets in a mud hole or stream and works along the bank, finding some worms, some grass, some seeds, and he rinses down every mouthful with water.

Taking into consideration all the points

in their favor—the lessened expense for houses and yards, the greater ease with which they are reared, the great fertility of their eggs, the small mortality among the young, and their great laying qualities—the Indian Runner seems a very desirable fowl to raise. This is only my second year with them and my flock is small, but I am exceedingly well pleased with them and shall increase my flock largely this season. I have raised chickens in large numbers for many years, and there has always been a constant warfare between me and the various enemies that dispute the possession of them. When it is not hawks, cats, skunks, or owls, it is vermin or disease that I have to guard against. One has to be constantly on the alert. I have taken more solid comfort in raising ducklings than any other fowl. The cat loves them and needs to be looked out for while they are small, but so far disease has been almost entirely unknown among them. I confidently expect to raise about every one that I hatch, and nearly every egg that I set hatches.

Vermont.

H. L. HUNT.

THE TIME TO READ AND PLAN.

The evenings are beginning to get pretty long. Why not plan to utilize some of them in laying in a stock of poultry ideas? You may be a very good poultryman and yet be able to absorb some very useful knowledge from the experience of other poultrymen. We are quite prone to lean back on the comfortable assumption that "our" way is the best. What is our way? It is our application of the experience of others that has been nearest to hand on the start.

Now, I care not how good a poultryman you may be, somebody can teach you something; a number of somebodies can teach you a number of somethings, and if you are a progressive poultryman you can turn these somethings to good account in your business. The poultry business is just what you make it yourself—just as large, just as successful. Nor do I dignify by the term "poultry business" the keeping of a few old hens, scratching for their dear old lives, behind the barn.

The farm is the ideal place to raise poultry, but just about one farmer in a hundred gets even a reasonable return from this advantage. Lack of time is the usual plea for this condition. Let a few acres of ground lie fallow, if necessary, and devote just a few minutes of each day to the poultry and watch the results. I will promise you fewer run-down acres and more dollars "year in and year out." The dollar that is made by the hard labor of general farming is

the brains of professional institute talkers; there are a whole lot of them germinated in the idea factory of the obscure poultryman, some of them never working except locally (I mean the ideas).

Now don't get ideas and "fads" confused. By an idea the greatest result is brought about with the least expenditure of energy and by a person who needs the money. A fad brings about a result by a means entirely unheard of hitherto, the total amount of energy expended being only incidentally considered, as the faddist is usually in it for the entertainment furnished.

Right here let me say, in favor of the poultry department of the farm journals over the strictly poultry journals, that the editors of the former grow but mildly enthusiastic over fads, judging by the great predominance of the purely practical ideas advanced. To farmer poultrymen having more or less scorn for their business conducted on paper, I want to say that it is a great big mistake and they are letting a lot of good things get by them. I don't mean that you should adopt every other man's ideas but, where you run up against a plan superior to your own, just don't be obstinate.

Isabella Co.

WM. J. COOPER.

FEEDING BEES IN COLD WEATHER.

The recent severe cold snap has emphasized the importance of early preparations for winter in the apiary. Colonies which do not possess food enough to carry them through the winter at the time that severe weather begins are in a bad way, since it is very difficult to feed extracted honey or sugar syrup in cold weather without endangering the welfare of the bees.

Late in the fall after the close of the honey flow, bees cluster in a compact mass for the winter, usually on the central combs, and so remain until settled weather in the spring, or until brood rearing is well established. Giving them liquid food causes them to break the cluster and scatter over the combs in order to store it in the cells. The increased heat from the excited bees causes them to sweat and, when clustered and quiet again, everything becomes damp and clammy and, if the weather becomes severely cold, may result in their being frozen. Besides, it is much easier to keep a dry room warm and comfortable than it is a damp one.

Honey dough is no longer considered safe as a winter food, simply because it becomes soft from the moisture of the bees, running down over them, daubing and actually killing the helpless toilers. Honey dough is made by kneading extracted honey with powdered sugar.

Bees in the condition indicated above may, however, be given hard candy, chunks or bricks of which should be placed directly over the cluster, on top of the frames. Make the candy by dissolving granulated cane sugar in water on the stove, stirring constantly but slowly until sugar is all dissolved. When done it should become brittle when dropped into cold water. Then mould it into cakes or bricks.

MICHIGAN POULTRY SHOWS.

The winter show season, in this state, opens next week with prospects good for an unusual number of excellent shows. A list of the cities that have claimed dates, for shows, is given below:

Kent City, Kent Co., Nov. 27-Dec. 1.
Alma, Gratiot Co., Dec. 4-7.
Dowagiac, Cass Co., Dec. 5-9.
Ewart, Osceola Co., Dec. 5-8.
Lawrence, Van Buren Co., Dec. 13-15.
Muskegon, Muskegon Co., Dec. 19-22.
Pontiac, Oakland Co., Dec. 19-23.
Holland, Ottawa Co., Dec. 21-25.
Kalamazoo, Kalamazoo Co., Dec. 25-30.
Oshtemo, Kalamazoo Co., Dec. 26-30.
Vicksburg, Kalamazoo Co., Dec. 27-30.
Jackson, Jackson Co., Dec. 30 to Jan. 4.
Lansing, Ingham Co., Jan. 1-5.
Grand Ledge, Eaton Co., Jan. 1-5.
Grand Rapids, Kent Co., Jan. 1-5.
Wyandotte, Wayne Co., Jan. 2-6.
Howell, Livingston Co., Jan. 8-13.
Manistee, Manistee Co., Jan. 11-14.
Sheridan, Montcalm Co., Jan. 15-18.
Port Huron, St. Clair Co., Jan. 17-20.
Calumet, Houghton Co., Jan. 18-20.
Cadillac, Wexford Co., Jan. 23-26.
Detroit, Wayne Co., Jan. 25-31.
Grand Haven, Ottawa Co., Jan. 30 to Feb. 2.
Bay City, Bay Co., Jan. 30 to Feb. 2.
Charlevoix, Charlevoix Co., Feb. 7-9.
Saginaw, Saginaw Co., Feb. 14-18.

Michigan Bee-keepers' Annual Meeting.

The Michigan Bee-keepers' Association will hold its annual meeting in the Auditorium at Saginaw, Dec. 13 and 14. While the past season has, in many ways, been a disappointing one to most bee-keepers, a good attendance at this meeting is hoped for. The program, details concerning which will be given in a later issue, will be up to the standard of former meetings.

Take Your Choice of these 32 Special Books

Let us show you free of all cost or obligation exactly how you can save money on everything you buy to eat or wear or use in any way.

Here are a number of the special books we issue. In the entire list there may be but one or two or three that will interest you at this time. But by all means get that book or books in which you are interested.

You owe it to yourself, to your family to at least investigate this big opportunity for saving.

Check Over the List Now

- | | |
|-------------------|----------------------------|
| 1 Paints | 17 Baby Carriages |
| 2 Pianos | 18 Men's Fur Coats |
| 3 Organs | 19 Sewing Machines |
| 4 Trunks | 20 Gasoline Engines |
| 5 Roofing | 21 Cream Separators |
| 6 Vehicles | 22 Building Material |
| 7 Furniture | 23 Stoves and Ranges |
| 8 Incubators | 24 Underwear Samples |
| 9 Wall Paper | 25 Automobile Supplies |
| 10 Typewriters | 26 Bicycles—Motorcycles |
| 11 Grocery List | 27 Baby's Dress and Toilet |
| 12 Feed Cookers | 28 Women's Tailored Suits |
| 13 Tank Heaters | 29 Women's Fashion Book |
| 14 Wire Fencing | 31 Raincoats—Mackintoshes |
| 15 Carpets, Rugs | 32 Men's Clothing |
| 16 Building Plans | 34 Women's Furs |

Send To-Day: Each of these books is nicely illustrated. The illustrations are true to life. The descriptions are absolutely accurate, and behind every article there is an unconditional guarantee of satisfaction or money refunded. The titles of these various books tell you the nature of the contents. Pick out the book or books that interest you, write their number in the coupon below and mail to us to-day.

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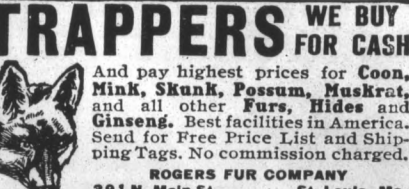
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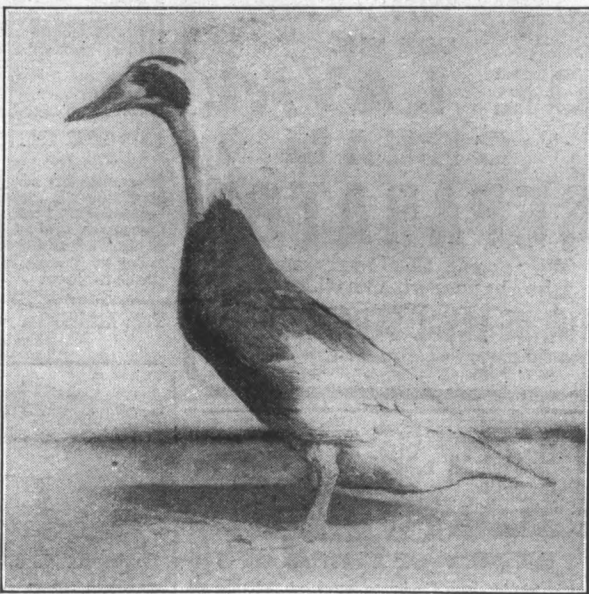
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First Prize Indian Runner Drake at Last State Fair. Exhibited by L. C. Kelly, of Washtenaw County.

in no way superior in purchasing power to the one obtained by the intelligent application of an idea. So, I say, sit down occasionally and use that brain of yours in sifting out the applicable ideas of other men's brains and putting them to work for you. It is an accepted axiom that no man ever acquired great substance by his own individual physical efforts; that to be successful above others you must profit by the labor of others. To this you can consistently add the putting to work of as many other fellows' ideas as will pay a profit.

I have never read a good poultry periodical, or a live poultry department of a farm paper, without having found something good, something which, if not new in the literal sense, was new to me. And not all these ideas emanate from the fer-

THE DAIRY

CONDUCTED BY COLON C. LILLIE.

THE CO-OPERATIVE CREAMERY.

Three things are fundamental in the success of any co-operative enterprise. First, the attitude of the individual toward the particular thing to be undertaken, must be right. Second, he must possess that stability of character that will enable him to remain steadfast in a given purpose, and third, he must possess some knowledge of the business to be undertaken.

In the general requirements of successful co-operation the creamery is no exception. The successful co-operative creamery must be managed by men who are interested in the business. They must be interested alike for themselves and each other. The great David Swing once said "Mankind was made for the large task or large pleasure of occupying two worlds at the same time, the world of self, and the world of race." A community in which the individuals are selfish, each anxious only for his own financial interests, will not be likely to succeed with a co-operative creamery. There must be a community of interest as well as a community of individual progress. Each member of the company must realize that the creamery is for the public good. That its success will be an honor to the community, an evidence of intellectual and material growth and that its failure would case a shadow over the business reputations of the men who are endeavoring to run it. In short, every man at the outset, and all along, through the months and years that are to follow, must contribute thought and work to the success of the enterprise, and achieving that success, even in a moderate degree, should give him satisfaction, that should go far toward compensating him for time and labor expended.

Stability is one of the fundamental requisites of the successful business man. Dark days will come. Temporary reverses are the experience of every one. Tests of courage and endurance are the lot of all, whose lives are worth while, and the men who are trying to run a creamery constitute no exception to the rest of the race. They must stay by that creamery, "through thick and thin." Stay by it when the price of butter falls off. Stay by it when somebody somewhere else has gotten a better price for butter-fat. Stay by it when the great centralized plant has sent its agent into their territory, authorized to pay an extravagant price for cream with the ill-concealed effort to capture their business. Every man in the bunch must adopt the language of the Irishman's motto which he desired to have placed over the entrance to a graveyard, "We are in it to stay."

A knowledge of the business is of the greatest importance. A creamery company cannot expect, however, to know all about the business at first. If the attitude of the company is right, and if they possess enough stability, they can learn the business thoroughly in time, and this is essentially the thing for them to do. Many a creamery goes down, because stock holders and patrons do not understand the business. Of course, cream varies greatly in butter-fat contents, and variations in the test among different patrons, and with the same patrons, from time to time, cause surprise, dissatisfaction and distrust. A knowledge of the business will teach us that these variations must occur. We cannot always tell why, but we know that they must exist, and knowing it, we are not tempted to blame the butter maker, or worse, to charge him with intentional fraud. The individuals, in a co-operative creamery, would learn faster, and get along better, if they kept closer together. Each one should be well acquainted with the butter maker. They should go often to the creamery. They should know all about the output. They should know what overrun they are getting from month to month. They should understand just what constitutes the overrun. They should go often and see samples of cream tested. The butter maker will always be willing to explain, and patrons will soon learn that he has no desire to wrong them, but that he is doing his very best to treat every individual fairly. I say this confidently, because I believe that while there is now and then a worthless fellow, trying to make butter in a creamery, the majority of butter makers, in our state, rank well in character, with the men of any other class. Knowledge of the busi-

ness will induce each individual to care for his milk and cream. He will see that the cows are kept clean, that the separator is thoroughly washed and scalded, that the cream is immediately cooled down to the proper temperature and kept in a clean, cool place until it is delivered to the creamery, and he will do these things partly for himself, and partly because of his interest in the creamery, as a successful co-operative enterprise. He has learned that there is no alchemy that can enable the butter maker to make a product of high quality from filthy cream, and that none but the best of butter will command an extra price in the market.

Yes, I know that I am asking a good deal of the patron of the creamery, but we can have nothing good in the world if we will not pay the price. The individual who invests in a creamery, his own capital for private gain, must secure the same high quality in dairy products, delivered, or at least partially fail. The co-operative company simply take upon themselves that care and energy that are the burden of the private business man. If we are going to do business, along co-operative lines, the same care, knowledge, thrift and push that evidence the successful business man, must appear in us, the co-operative company.

Oceana Co.

W. F. TAYLOR.

PUT YOUR BARN IN CONDITION.

This is not directed to the progressive and up-to-date dairyman; he has his stables in order and when the nights began to get colder than is comfortable for the cows to stay outside they are properly housed. But we have in mind that class of men who will not be troubled with stabling the dairy cows until a big snow storm covers the pasture lots and causes the animals to plead for something to eat. Some men neglect the cows because of indifference; how to touch this class of men is a problem of the race which, if solved, will be a boon that future generations will not soon forget. Others delay stabling out of economy; but it is not economy. The cow cannot return to her owner more than he puts into her, and when she must use a large part of the energy contained in her food to overcome the shocks of exposure she cannot put that energy into the pail. Protect her and she will pay you well for the trouble, if she doesn't then her place is not in the dairy herd.

When the men of whom we speak are finally moved to put the cows in, the stables are usually untidy, if not strewn with boards, equipped with broken mangers and perhaps floors, with walls covered by cobwebs and chaff and conditions generally unsanitary. And among the unsanitary conditions found the lack of light is perhaps the most universal. It is not economical to leave the barns like this. From the standpoint of labor one will, in two or three weeks, spend the time required to repair and make conditions convenient, in the extra minutes demanded to do the chores because of the stables being ill-adapted to making short cuts. Then, too, cows so kept cannot do their best. Give them good stables that are well lighted and clean and the animals will get an inspiration to do business like the owner.

We have spoken of light. If windows are lacking an ordinary carpenter can put them in in a short time. If they are in but admit no light, wash them. Your ignorant neighbor may laugh but your cows will thank you through the milk pail.

Whitewash the walls. The lime will destroy germs and make the stables lighter. If done two or three times this winter the results would be pleasing; but once now will help.

Study the arrangement of your stables and see where work can be saved. Often the construction of a door will save a hundred steps every night and morning. It is worth while for you to conserve that energy for other duties. A. H.

The central attraction of the great National Dairy Show at Chicago was the Jersey cow, Jacoba Irene, owned by A. O. Auten, general manager of the show. This famous cow produced 1,126 pounds of butter last year, made from nearly nine tons of milk, a record cited as a powerful incentive for the improvement of dairy cows generally throughout the country, and particularly in sections where the standard is absurdly low. "Just think," said Colonel Charles F. Mills, head of the dairy cattle division, "there are 250,000 cows in Illinois so poor that it would take 209 of them to equal Jacoba Irene for a year in actual profits.

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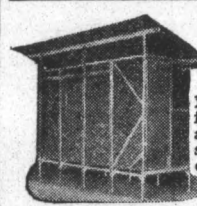
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CORNSTALKS THE ONLY ROUGHAGE.

Owing to the very dry summer my hay crop was small, in fact I have just about enough to feed my horses till hay comes next year, with none at all for my cows. I have, however, an abundant supply of cornstalks, cut before frost, and in good condition, which I shall either have shredded, or run through a cutting box. I also have five acres of sugar beets, and will have the leaves to feed for the succulent part of the ration. The only grain I have is corn, which I intend to have ground. I am aware that this is a very poorly balanced ration, so I will expect to buy something containing the protein necessary to make up for the lack in the corn. I have thought of getting either oil meal or cottonseed meal for this purpose but it seems to me that this combination lacks the bulky nature which seems to be necessary for good results in feeding cows. I have also thought of trying dried distillers' grains which are more bulky, and also carry a good percentage of protein. Perhaps dried beet pulp might be a good addition to the corn and other heavy concentrates to give it a more bulky nature. Please give me your advice on this subject in the columns of The Farmer.

Montcalm Co.

E. H.

With nothing but cornstalks for the roughage part of the ration there is not enough variety to make the best kind of a ration. Of course you could get along with it and by feeding a good liberal ration compounded as suggested for balancing up the ration and furnishing plenty of protein, you should get your cows to do fairly well. Yet it would be better if you could feed them one feed of hay or a feed of oat straw or millet hay

bined it would be too loosening for the cows to do well, but after the beet tops are gone if you wanted to, you could substitute oil meal for the cottonseed meal and probably secure as good results.

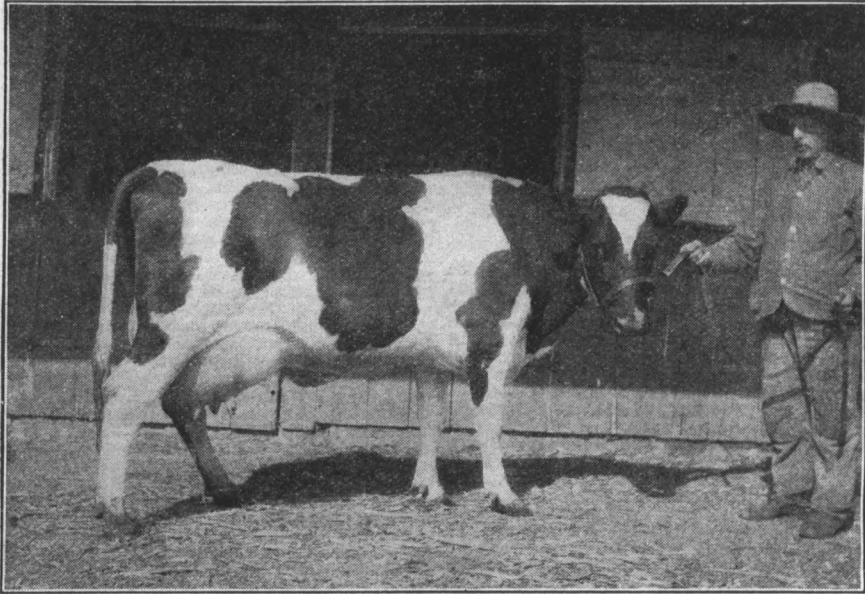
FILLING BEET TOPS ON TOP OF CORN SILAGE.

Hearing that you built a silo for your sugar beet tops, would like to ask if you would advise one to do it, or could they be put on top of corn fodder and keep all right? I have always fed them green, but have room in my silo if I could keep them that way.

Kent Co.

W. D.

Beet tops can be put into the silo on top of corn silage and they will keep as well there as in any silo. I tried this once myself. The only difficulty I experienced was in getting them up into the top of the silo, that was in the days before we had the blower elevators on ensilage cutters. We put them up with an old-fashioned elevator. It was some little trouble. It was pretty hard also on the ensilage cutter as we run the tops through the cutter when being elevated. But the beet tops kept well. In fact, I think they will keep better when they are run through an ensilage cutter and made somewhat finer than if they were put in whole. They pack in more tightly and exclude more air. If you could get the beet tops packed well they'll keep there just as well as in a separate silo;

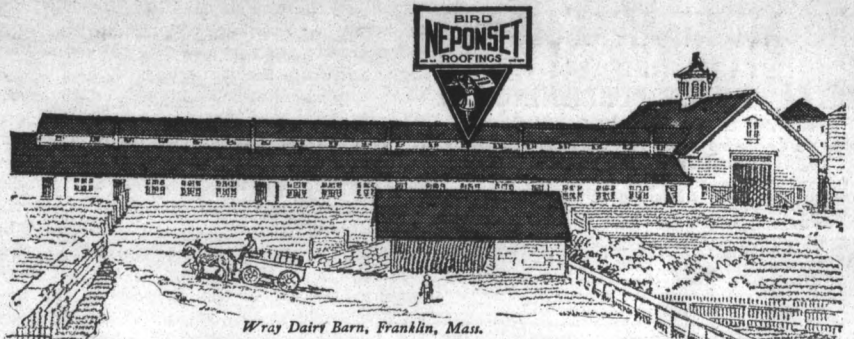


An Ohio Holstein Cow with a Record of 20 lbs. Butter in Seven Days. Good Type. or bean pods or anything of that sort to give just a little more variety. If this is impossible, I would, by all means, cut the stalks instead of shredding them and I would cut as often, say, once a week, enough to last the cows till you cut again. If you could run these into a sort of bin or in one corner of a stable and moisten them and let them heat up just a little bit and soften, you can get the cows to eat more of them and they would furnish a better bulky food. While perhaps there wouldn't be very much more of it digestible than there would be if they were fed dry, they would eat more of it and it would give that bulk to the food which you say is necessary in order to get good digestion and assimilation in the cows. Your beet tops will furnish excellent succulency but I wouldn't feed too much of them. One feed a day I think is plenty of beet tops.

Now for the grain ration, cottonseed meal will furnish you digestible protein cheaper, probably, than any other that you can purchase, and it is an excellent food to feed in connection with the beet tops, the corn meal and the cornstalks. With the ration you already have you can mix corn meal and cottonseed meal equal parts by weight and feed the cows as many pounds of grain per day as they produce pounds of butter-fat in a week, and I think you will get as good results as you can possibly get with the limited foods at your command. If, in addition to this, you want to feed dry beet pulp it will give greater variety and make a better ration. If I fed the beet pulp I would moisten it from one feed to another and put the grain onto this beet pulp when I fed it. However, if you cut the cornstalks as I have suggested and moisten them, you could put the grain on the cornstalks and get better results than you can if you feed the grain and roughage separately. Oil meal is also an excellent food to feed here but, while you are feeding the beet tops, I would prefer the cottonseed meal because oil meal is laxative in nature and so are the beet tops and by feeding the two com-

20 lbs. Butter in Seven Days. Good Type. but there is one objection. If you fill in on top of the corn silage with your beet tops then you will have to feed beet tops alone as a succulent food until you get them all fed out, and I don't like to do this. I think that it is better to feed beet tops once a day and corn silage once a day, in fact, I think that a feed once a day of beet tops is all that cows ought to have. It is a fact that the salts in the beet tops work on the kidneys of the cows as a diarrhetic and if fed too liberally for a considerable length of time, I have no doubt that it would not be beneficial to the cow, but where they are fed once a day only and other feeds the balance of the time, I know from experience that they do not injure. By having a separate silo for the beet tops we can feed beet top ensilage once a day and corn ensilage once a day. This year one of my silos is not full and as I have more beet tops than I can get into my regular beet top silo my attention is to elevate some of the beet tops into the big silo; that is, I shall do this if the weather permits us to harvest the beets at all. At the present writing it doesn't seem as if we would ever be able to get onto the land and harvest the beets. If we don't probably we can dig them out occasionally through the winter and get them so that we could feed them beet tops and all. But that would be the only objection that I could see in putting the beet tops into your other silo, is that it will hinder using the corn silage until you have fed all the beet tops.

The storage people are not supplied with the usual amount of butter stocks this fall and consequently cannot avail themselves of the better prices which are sure to rule and incidentally keep down prices to where they have been in former years. Their packing away butter was interfered with by threatened legislation during the past year, both by state and federal governments. The action had the effect of making prices low during the spring and early summer when storage people are usually busy getting in their supplies, and from now on the lack of storage goods will permit values to go up to where substitutes will be used to considerable degree.



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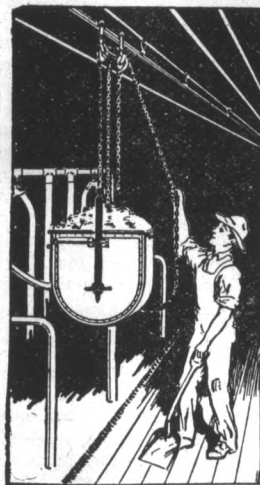
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 The Lawrence Publishing Co.,
 Detroit, Mich.

DETROIT, NOV 25, 1911.

CURRENT COMMENT.

The return of the Thanksgiving giving season should bring home to every Michigan Farmer reader the fact that he has many blessings for which he should be truly thankful and for which a true Thanksgiving should be rendered in accordance with the spirit of the day. As the Thanksgiving feast has for long typified the Thanksgiving spirit, and as the turkey has become almost a symbol of the Thanksgiving feast, this great American fowl has been used by our artist as the central figure in our first page design. Over the bird, and of great importance, appears a reference to the spirit of Thanksgiving, which should be typical of the day and season, while beneath it, and lying across a solid and unbroken wall is a scroll upon which appears a reference to the defeat of the Canadian reciprocity pact, as one of the minor causes for thanksgiving upon the part of the Michigan farmer. This allusion is not made in any political or partisan sense, as the words of the artist might be misconstrued to mean, but in the broad sense of justice to the industry in which he is engaged and the type of American manhood which he represents.

There are, however, other and greater causes for true Thanksgiving which should engage the thoughtful attention of each and every one of us, to the end that this season may not only be one of feasting, but as well one of true Thanksgiving for the many blessings which we enjoy in comparison with the people of any other land or any other age.

As a means of making the coming season's institute work more generally profitable to the farmers of the county, the officers of the Hillsdale County Farmers' Institute Association recently called a meeting of the township vice-presidents to consider and outline the institute work for the coming winter in Hillsdale county. It was the expressed belief of the president and secretary of the society, who took the initiative in calling this meeting, that with the enthusiasm manifested last winter in this work, a conference of this kind would enable the putting out for this Institute programs which would arouse the general interest of the farmers of the county.

The township vice-presidents were

asked in the letter issuing the call, to interview a number of people in their respective townships and find out whether they want an Institute or not, and if so what topics they would like discussed, also if there are any competent person or persons in the township who could be induced to prepare themselves to discuss any of the topics which the people might desire to have discussed at such institute. In addition to calling this meeting, a letter was also sent to the local press of the county urging all persons interested in the success of the institute work of the county to confer with the local vice-president at once, so that the officers of the county association might know what townships desire an institute and what topics they would like discussed. The names of the township vice-presidents were given in the notice sent out for publication, so that all who read might be advised of the proper person to consult in the expression of their desires regarding the institute work for the coming winter.

Undoubtedly this is the most valuable kind of preparation which could be made for a successful institute season and the officers of the Hillsdale County Farmers' Institute Association are to be congratulated upon this progressive action, which might well be emulated by the officers of other county institute societies throughout the state. Undoubtedly the farmers' institutes may be made a very great educational force in any locality. Too often, however, the program is gotten up with little reference to the particular needs of the township or the community in which the institute is held, for which reason the institutes have not been as successful as they might be made under a plan such as is outlined above. If this plan of work could be adopted in every county of the state, there would undoubtedly be a great improvement in the character and benefits of the institutes held throughout the state during the coming winter.

The International Live Stock Exposition, the twelfth annual exhibition of which will be held at the Union Stock Yards, Chicago, December 2 to 9, inclusive, should be a matter of interest to a very large class of Michigan Farmer readers. The International Live Stock Exposition is well described as a leading exponent of a great movement for the improvement of the domestic animals of the United States.

The power of example is perhaps the most potent factor in educational work. One may be inspired more surely by a notable example of what some one has done than by the most plausible theories or even the most carefully expounded facts. For that reason the International Live Stock Exposition, conducted as it has been upon the most liberal scale, has instituted a beneficial campaign of practical education at a time when education along the particular lines of this show has been sorely needed in this country. There has been and still is too little appreciation on the part of the general farmer, if not of the stock breeder and feeder, of the benefits to be derived from breeding and feeding a better class of stock, as well as a failure to understand that from this time on the country must depend mainly upon the farms for meat and draft animals, since the days of maximum range production have passed to return no more.

Not alone must the farms of the country be depended upon to furnish our own meat supply, but there is open to them a profitable market in Europe for any surplus of good live stock products which may be produced over that which is needed to supply our home demands. The mission of the International Live Stock Exposition, as planned by its projectors and as demonstrated by its success, is the gathering together in one place the best specimens of cattle, sheep, swine and horses that are to be found anywhere in the world, thereby presenting to the agricultural population of the United States a valuable object lesson whereby they may be inspired to the production of better animals for breeding, marketing and exporting, thus adding to the profit derived from our American farms and to the food supply of the world.

Among its features this exposition embraces a grand breeders' prize exhibit of pure-bred stock of all kinds, with daily sales of all breeds; a great fat stock show surpassing any other held in the world; a fine display of draft and general purpose horses; a magnificent carlot exhibit of fat and feeder cattle, sheep, etc.; special college exhibits with stock judging contests, with exhibits of feeding appliances, etc.; slaughter tests to deter-

mine the effect of the different feeds and different methods of feeding, and many other features of interest. There will also be brilliant evening entertainments, all of which, together with the annual meetings of various live stock associations held in connection with the International, make it an event which should not be missed by any Michigan farmer, interested even in a small way in stock breeding or feeding, if he can possibly arrange to attend it.

This is the title "The Bachelor Uncle." of a thoroughly good, wholesome and entertaining story, the first installment of which appears in our Magazine Section this week. A story properly planned and well told not only furnishes pleasant recreation but affords the reader a certain amount of suggestion and instruction which, perhaps, could be given in no other way. We feel that in "The Bachelor Uncle" we have secured such a story, and one that will hold the interest of our thousands of readers from the first to the last chapter. It was selected because of its constant and increasing interest; because it is highly entertaining; because its general moral tone is good and in the end, after many vicissitudes, the right prevails. It is a story of country life and, although many of the situations are unusual, similar situations have been known in rural communities, and the story is regarded as a true presentation of the varying ramifications of the young American mind. Its author, Mr. McNeil, has written several books of fiction that have had a wide sale. We trust that every one of our readers will begin the story now and follow the fortunes of the Bachelor Uncle and his dauntless and irrepressible nephew and niece through the coming chapters.

HAPPENINGS OF THE WEEK.

National.

Employees of the Pennsylvania lines living in Indianapolis have formed a co-operative association for securing supplies. Already a consignment of goods has been delivered to the association and much satisfaction is expressed on the part of the members because of the low prices. Orders are taken for the following month when the distribution is made.

The Michigan-Pennsylvania football game, which was played at Ferry Field, Ann Arbor, last Saturday, resulted in a victory for the Wolverine players, the final score being 11 to 9.

The fall of heavy snows in the Cascade mountains and heavy rains have caused floods in western Washington, and at Seattle the municipal electric plant dam has given away, the city's water supply is cut off, railroad service is demoralized and bridges are washed out. Many farms along the valleys are flooded.

Farmers of Texas are reported to have in their hands 700,000 bales of cotton which they are holding for higher prices. It is also declared by State Commissioner of Agriculture Kone that there will be planted 25 per cent less acreage another year that the farmers may receive for the product a reasonable price for the labor required to produce it.

Much damage was done the boats on the great lakes last week by the heavy storms which prevailed over this section. Many boats have been placed in winter quarters earlier than was expected because of the snow and the storms. A foot of snow has fallen at Escanaba. At Martin river, below Quebec, a Norwegian barge was driven ashore and her crew, which numbered 15 persons, lost their lives.

Dr. Wiley, of the Department of Agriculture, declares his intention to bar from the United States, absinthe—a drink much used in European countries—because he believes it dangerous to public health and as such can be kept out of the United States under our present laws.

An organized effort is being made by the sugar beet men to fight the propaganda of the cane sugar people who desire to put raw sugar on the free list. It is declared by the sugar beet adherents that such an action on the part of the federal government would destroy a great industry which has developed and which annually pays the American farmer \$30,000,000 for the sugar beets produced upon our farms.

Foreign.

A presidential campaign is on in Panama for the selection of federal officers. It is expected by some that the rivalry between the parties will result in a rebellion; however, the union leader states he will leave the country before countenancing such means to gain ground.

A great famine is reported in Russia. It is estimated in the report received on this side that 8,000,000 people are in need of immediate relief. The failure of the crops in 26 Russian provinces is the cause of the unfortunate condition in which the inhabitants find themselves.

It is reported that an advance on Nankin, China, has been started by the rebels who are sending their fleet of vessels up the Yangtse Kiang river. The vessels are manned by foreign officers, many of them Americans. It is declared that the Imperial army is in need of supplies which gives the rebels an advantage. The siege is believed to be a crucial one for should the rebels win out they will have gained sufficient territory and strength to almost assure their success; but on

the other hand, if there is a government victory it likely will mean a turning point in the conflict. Reports have come to this country of missionaries being slain in the province of Shensi at Hsianfu, the capital. These reports are not confirmed, however, in Pekin.

Dr. Chang, director of the Chinese agricultural college at Mukden, is in this country studying American agricultural methods with the purpose of inaugurating some of them in the Manchurian school. He declares that many parts of this northern province of China are as thinly settled as many of our western states, and that if properly handled it would supply agricultural necessities for 400,000,000 people. An effort will be made to persuade Chinamen from the densely populated portion of the country to settle in Manchuria and avail themselves of her splendid agricultural districts.

Much anxiety exists over conditions in Mexico. The United States authorities have provided for a closer watch along the border line to prevent rebels furthering their plans on this side. The governor of Texas has ordered all rebels to leave that state. The Mexican government has located 12,000 troops in the northern states that no time may be lost should an uprising occur. General Bernardo Reyes, a candidate for the presidency of the republic during the last campaign, was arrested at Monterey recently. It is thought that this action of the authorities may aid in controlling the rebellious classes.

Violent earthquake shocks were felt throughout Switzerland last Saturday. So violent were the shocks that in Geneva street cars were derailed. The interruptions were felt over Germany and Austria. At many places considerable damage was done, but no loss of life is reported.

The Duke of Connaught formally opened the first session of the 12th Parliament of Canadian government last Thursday. The Duchess of Connaught was at the side of the Duke when the session was opened. It is the first time since the regime of the Marquis of Lorne that a woman has been on the throne.

CROP AND MARKET NOTES.

Livingston Co., Nov. 13.—The severe winter weather that started yesterday caught farmers with not more than 60 per cent of their corn secured. Farmers need three weeks of good weather to get in shape for winter. Stock is being marketed freely on account of scarcity of feed and high price of same. There will not be more than one-fourth as many lambs on feed in this section this winter as there was last, feeders having become disgusted with the business last winter because of low prices. Feed is so high that they do not seem inclined to stock up heavily this winter. Wheat will go into winter in good condition. More rye sown this fall than usual.

Lapeer Co., Nov. 16.—Snow squalls and rain this week. Ground frozen about two inches; lots of sugar beets fast. But little corn husked as yet; much of it in shock in fields. Just about enough being husked for necessary feeding. Bean threshers are kept busy. Some potatoes moving marketward lately; price around 60c. Beans (best) about \$2.20 per bu; corn, per crate of ears, brings about 34c. We do not hear any complaint of potatoes rotting in this part of the state, but corn has been damaged some by the excessive rains. Some corn has moulded at the butts, reducing the feeding value of the stalks about 25 per cent. Prices for farm labor as high as in midsummer, viz., \$2 per day and sometimes more.

Washtenaw Co., Nov. 17.—The weather has been most unfavorable for the completion of fall work and in consequence much remains to be done. Fully half of the corn is in the field as yet and even potatoes and sugar beets are not all secured, and, with a week of snow and cold weather, mixed in with a day of sleet, the condition of the ground will be such as to make it an almost impossible job. The year bids fair to make a record for unfavorable farm conditions. The potato market is going up from day to day, tubers now selling at 80¢-85¢ from farm wagons and will without doubt touch the \$1 mark in the next few weeks. Stock of all kinds plentiful and prices lower. Hogs, \$5.75; cattle, \$4@4.50; sheep, \$2.50@3 per head. Hay selling in barn from \$15@17 per ton. Prospects are that feed of all kinds will be scarcer and dearer than for many years.

Ottawa Co., Nov. 17.—A sleet storm commenced shortly after midnight last night, and the trees and fences are covered with ice this morning. But as quite a heavy rain is now falling, the ice will probably do but little if any harm. A large amount of corn is still standing in the fields unhusked, and where the corn has been husked the fodder is still out, so that it will be badly damaged. Farmers have been obliged to work between showers in order to get any kind of work done this fall, because in the past two months there have hardly been two days in succession on which it did not rain more or less. There are still some potatoes to dig, and but few sugar beets have been harvested. There will be no fall plowing done, as is usually the custom, so farmers will have a chance to find out next spring whether it pays just as well not to fall plow. In this vicinity a large amount of money was raised last spring to grade and gravel certain roads, and as much of the grading was done quite late in the season, such roads are almost impassable.

Ohio.
 Carroll Co., Nov. 17.—The first snow fell here Sunday, Nov. 12. Last week it was nice and warm, but is pretty cold now. Many farmers haven't their corn husked yet. Corn and potatoes are not extra good crops this year. Nearly all live stock looks well. All fall work done except corn husking and hauling coal.

Magazine Section

LITERATURE
POETRY
HISTORY and
INFORMATION



The FARM BOY
and GIRL
SCIENTIFIC and
MECHANICAL

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

The Bachelor Uncle—By Everitt McNeil.

The Coming of Teddy and Ellen.

My hair rose slowly on end, as I read the following letter:

Wednesday, June 9, 190—

"Dear Brother John:—

"Fred and I are going to Saratoga for a three-weeks' stay, and we are going to send the children to you. The country air and life will do them good; and I shall feel certain that no harm can come to them, if I know they are in the care of the best brother any sister ever had. They are the dearest and sweetest children in the world, and I am sure they will not give you a moment's trouble. Teddy—his real name is David Samuel, but since Roosevelt shook hands with him he insists on every one calling him Teddy—is an exceptionally bright boy, and one of the most lovable and obedient children that ever blessed a mother. In many ways he makes me think of you, when you were a child of his age; and I am sure you will love him dearly. Ellen is the dearest little girl, with such cunning ways, that I know that she will walk right into your big, loving heart.

"Fred and I wish to go Saturday, and so we shall start the children on their way to you Friday morning, on the train that reaches Plumville at five o'clock in the evening. Please be at the station to meet them.

"Fred unites with me in sending love to you, and remembrances to all the friends, especially to dear old Mary Jane, who, for our sakes, I am sure will be like a mother to Teddy and Ellen.

"Now, be sure and be at the station when the train comes in.

"Your loving sister,

Esther.

"P. S.—Don't forget to give Teddy and Ellen a glass of milk every night just before they go to bed; and be sure the windows are closed in Teddy's room, so that no draft of air can reach him during the night; and please don't let him get his feet wet. Teddy looks strong, but he really is quite delicate.

"Your sister,

Esther.

"P. S.—Oh, I almost forgot, but please give Ellen a spoonful of cod-liver oil every night; and have Mary Jane sleep in the room with her, so that if she wakes and wants a drink or anything she will be there to get it for her; and please give her two fried eggs and a piece of buttered toast and a glass of milk for breakfast. Ellen is delicate, and we have to be very careful of her.

"Lovingly,

Esther.

"P. S.—I shall send the cod-liver oil with the children's things. Please do not forget to give the oil regularly each night just before Ellen goes to bed.

Esther."

"No, you don't!" I hastily ejaculated, the instant I had finished reading this letter. "I'll not be responsible for the dearest and sweetest children in the world. They would be sure to break their arms, or fall down $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ their arms, or legs, or necks, or to fall down the well, or tumble into the cistern, or set fire to the barn, and to turn everything in the house topsyturvy, and drive Mary Jane and myself crazy with their outlandish pranks. No, you don't, sister mine; not if I can send a telegram in time to stop you!" I glanced at the letter again. "We shall start the children on their way to you Friday morning." "Great Caesar!—and it is now four o'clock, Thursday afternoon!" I jammed the letter into my pocket and hurried to the barn.

"Jake!" I called to the hired man, "hitch the horses to the carriage at once. Caleb James brought me a letter that sends me to Plumville on the double-quick," and I rushed into the house to change my clothes.

Esther's letter terrified me. Two children—a boy and a girl! The worst possible combination, for what the boy could not think of the girl certainly would—coming to stay with me for three weeks! And I never could pick up even a baby, without something breaking loose and the youngster beginning to howl! I jumped into my clothes, and in ten minutes I was on my way to Plumville, determined not to have my life wrecked by my sister's children.

Near the outskirts of the town I met a neighbor. "Hello, Delvin!" he called. "You are just the man I want to see.

The operator gave me a telegram for you," and he handed me a yellow envelope.

My heart misgave me as I tore open the envelope and read:

"Changed my mind. Go Friday. Send children Thursday. Be at station. Esther."

"Nobody dead, I hope?" the man asked.

"No," I answered. "It's worse," and whipped up my horses.

"Well," I thought grimly. "It's better to make the best of the worst than it is to let the worst get the best of you. I'll swallow my pill. But, what am I going to do with those children! I would just about as soon handle a stick of dynamite as to touch a boy—and a girl!" I groan-

girl caught me by the hand. "I am Ellen, Uncle John. Kiss me," she demanded.

It was a very sweet little face that looked up into mine, and the kiss was given willingly.

"And how old is Ellen?" I asked.

"I'm eight, and Teddy, he's ten; and we've come to visit you, and I've brought Queen Ann and Princess Elizabeth, and Teddy's got his gun, and ma sent a lot of things, and her love, and some cod-liver oil, and—oh, Uncle John, have you got any teeny, tiny, little piggies? I—"

At this moment Teddy gave a yell and started after the baggagemaster, who was wheeling a couple of big trunks into the baggageroom.

"Stop! Stop! That's my trunk! It's

"You see he is just like Teddy Roosevelt," and she looked admiringly at her brother, as he climbed boldly over the wheel into the carriage.

My farm is two miles from the railroad station, and during the ride home the two children poured a continuous stream of questions into my ears. They had never been on a farm before and had the queerest idea of what farm life was like, while the suggestiveness of some of their queries sent cold shivers of apprehension chasing up and down my spinal column. "What shall I do?" I groaned. "Something dreadful is sure to happen. I can feel it coming in my bones. I'll send the children—" I looked at the two bright happy faces by my side and never finished the thought.

It was dark when we reached the farm. I took the children straight into the house and told Mary Jane to get supper for us at once. When Teddy and Ellen came to the table both looked surprised to find only Mary Jane and myself to eat with them; and I could see that Ellen was troubled quite a bit over something. Presently she looked up into my face and said: "Uncle John you ought to be married, so you could have little cousins for us to play with. Uncle Ben is married, and has got five cousins, and Uncle Richard has six, and a wife is such a comfort to a man."

"The dear girl!" ejaculated Mary Jane. "That's just what I have been tellin' your uncle these five long years."

"Oh, pshaw!" I responded, getting a little red in the face, for the topic was not a pleasant one to me. "Mary Jane takes the very best of care of me; and, as for company, wait until you see the six calves, the dozens of little pigs and lambs, the cows and horses and chickens and turkeys and ducks and geese, not to count Bruno, the big Newfoundland dog, before you complain of the lack of playmates."

Ellen's eyes became quite big. "My, what lots of things there are on a farm," she said. "But, won't geese or pigs hook? Mamma said that there was something on a farm with two horns that hooked, and that I must run when it looked at me."

"I know what she means!" Teddy exclaimed, excitedly. "It's a cow! And I brought my rope along on purpose to catch cows. You see I know Teddy Roosevelt," and he sat up very straight in his chair. "And I've seen Buffalo Bill's cowboys."

"But, after all is said, cows, an' horses, an' hogs, an' chickens, an' such ain't as satisfyin' as a wife an' one's own children," Mary Jane remarked, reverting back, after the manner of her sex, to the subject from which I had purposely led the children. "It's goin' against Providence for a man with a good home, free from debt, to—"

"Oh, drop that subject, Mary Jane," I interrupted, half angrily, for every word hit a sore place in my heart; "or, some day I will get desperate and marry Red Murdock's daughter, and I am sure the first thing she would do would be to turn you out of the house, bag and baggage."

"No fear of that," she responded, "while you are in your right senses, for you don't fancy that brazen Belle Murdock's peppery tongue no more than I do; but there's Judge Lamont's daughter, Elsie, as sweet an' pretty a maid as ever made a pat of butter, an' I am sure I once thought—heavens an' earth!"

At that moment Teddy gave a yell that nearly cracked the ceiling, and jumped suddenly to his feet, hitting the table such a bang with his knees, as he did so, that he knocked a plate of soft-fried eggs half way across the table ker-slap into Mary Jane's lap, sent the milk flying all over my shirt bosom, upset the teapot and made every dish on the table dance.

THANKSGIVING.

By Richard Braunstein.

Why must people be specific,
In a dead perfunctory way,
Itemizing all their blessings,
On one duly scheduled day?
When you're breathing ev'ry second,
And your pulse is running high,
And your home is on a hill-top
Pressed up close against the sky—
If you're really living,
Ev'ry day's Thanksgiving.

When each morning paints new pictures,
Splashes red, and mauve, and brown
On the autumn-softened canvas
Of the hills beyond the town;
When the frost does crystal etchings
On your study window sill,
It's a good thing to be living
On the old brook-riddled hill—
If you're really living,
Ev'ry day's Thanksgiving.

When your work at night is finished,
When you push the dull books by,
Snuff the light to see the better
All the big star-sprinkled sky;
When your brain with recollection
And delightful fancy teems,
And the thoughts you had in waking,
In your sleep keep on as dreams—
If you're really living,
Ev'ry day's Thanksgiving.

ed and glanced at my watch. The train was due in fifteen minutes.

I drove direct to the station. When the train came in a boy and girl jumped off the steps of the rear coach and looked eagerly around. I had never seen my sister's children, but I knew the boy at once. He had the map of his ancestry on his face.

I hurried forward, but before I could reach them the boy saw me.

"Hello! Uncle John!" he called; and, running to me, he took my extended hand in both of his and shook it vigorously, looking up sharply in my face. "I knew you by your size and nose, Uncle John," he said. "Ma says the Delvins run mostly to bones and noses. I've a Delvin nose," he added, proudly. "My, what a football player you would make, Uncle John!"

Then, before I could get in a word, the

got my gun and rope in it! Stop, or I'll knock your head off!" he called, as he ran, shaking his little first and getting red in the face.

The baggagemaster was a Dutchman. "Vell," he said, letting go the handles of the truck and looking at Teddy. "Vell, little poy mit der pig tongue, I goes der trunks mit der baggageroom in; und I take you mine knees over and sphanck, if you say some more dot you mine head vill knock off."

I hastened to the scene of the impending conflict and soon had Hans mollified and smiling broadly, and the precious trunk of my pugnacious nephew safely deposited in the back of the carriage.

"I am real glad you did not let Teddy hurt that big man. Teddy's an awful fighter with his fists. He once made Tom Dinwood's nose bleed," Ellen confided to me as I helped her into the carriage.

Right on the heels of this frightful commotion came a series of ear-splitting yelps, as Bruno, my big Newfoundland dog, rushed frantically out from under the table, his back steaming where the boiling contents of the teapot had struck it. Ellen screamed, Teddy yelled, the dog yelped and Mary Jane said, "Heavens an' earth!" again and again.

When the hubbub had subsided Teddy apologized for and explained the catastrophe in this wise: "Oh, Uncle John, I did not mean to do it; but, you see, all of a sudden, I felt something cold and hairy and big rub against my bare legs (he had on short trousers and short stockings) under the table, and I thought it might be a bear, and I just couldn't help but jump and yell, it was so sudden, and unexpected, and then the milk and eggs jumped and the dishes began to dance, and Ellen to scream, and the dog to yelp, and—and—Oh, Uncle John, I really wasn't afraid, only scared; and I'm awful sorry. Poor old doggie!" and, jumping from the chair, he ran to where Bruno lay licking the spot where the hot tea had fallen, and threw his arms around the dog's neck; and from that moment the two were fast friends.

"If papa was here he would put Teddy to bed," Ellen remarked, looking suggestively at me. "He always sends Teddy to bed when he goes off with a bang like that."

Well, to tell the truth, I rather liked the rumpus, barring the milk that came my way. For one thing it had shut Mary Jane's mouth on the subject of my marriage just when her words were beginning to hurt the worst, and it had been as funny as a circus to watch her kindly old face during the various exciting episodes of the tumult. In her fright and amazement her false teeth had dropped out, and her spectacles had slid down on the end of her nose, while the wrinkles had been chasing one another all over her face, in the most ludicrous manner.

"Well, Mary Jane, what shall I do with Teddy?" I asked, smiling. "You seem to have met with the most damage, and, therefore, should have the punishing of the guilty one. Shall I whip him, or send him to bed, or both?"

"Bless me! I don't know!" ejaculated the frustrated old lady, "unless you soak him in cold water an' put him to bed."

"Hurrah, the very thing!" I exclaimed, laughing. "I am sure he is hot and dusty enough to enjoy a good cool bath, and tired enough to be in bed; besides, it is after 9:00 o'clock. Come, Teddy, sentence has been pronounced against you," and I led the reluctant boy to the bathroom. As he went out of the room he turned and called to Mary Jane: "Don't forget to give Ellen her cod-liver oil; she likes it."

When the door closed behind us he remarked, regretfully: "I'd like to stay and see the fun when Mary Jane tries to give Ellen the cod-liver oil. At home Ellen always had the oil in her own room, and pretended to take it, but really gave the most of it to her cat. She said the cat liked it, and it was naughty to be stingy, so she just touched the tip of her tongue to the big spoonful of oil, and gave the rest to the cat. Ma saw the oil getting less and less and was satisfied, and Ellen never told because she said the Bible said you mustn't tell of your good deeds; and the oil was good for the cat, for it got fat, and Ellen made me promise not to tell, and you mustn't tell either, 'cause it's a secret. Ellen can kick awful hard for a girl, and I'll bet my jackknife against yours, Uncle John, that Mary Jane can't make her take a drop of the oil."

I declined to take the bet, but, after I had stowed Teddy safely away in the bed which I had put up in the large room where I slept, I returned to Mary Jane, curious to know whether or not Teddy's prophecy was correct.

I found the old lady standing in the middle of the room, the bottle of cod-liver oil in one hand, a large tablespoon in the other, and a flush of excitement on her kindly old face; but Ellen was nowhere to be seen.

"Hello!" I called. "Where's the girl?" "Here I am, Uncle John," and her bright eyes peeped out at me from under the table. "I am saying my prayers." And then the child began: "Please God make Teddy a good boy, and find Uncle John a wife with some little cousins, and make Mary Jane stop 'flecting me with cod-liver oil. Bless papa, and mamma, and Teddy, and Uncle John, and Mary Jane when she stops 'flecting me with cod-liver oil. Cod-liver oil is very good for cats, oh God. Amen."

"Bless me! I never saw such a child!"

exclaimed Mary Jane, looking helplessly at me. "I can't do a thing with her. Do try an' see if you can't make her take the oil."

The whole scene amused me immensely, but I did not laugh. After Ellen's touching prayer a laugh would have sounded irreverent. Besides, I really sympathized with the child. She was as healthy as a little girl could wish to be, and had no more need of taking the nasty-tasting cod-liver oil than a duck of carrying an umbrella. However, something had to be done.

"Give me the cod-liver oil and the spoon, Mary Jane," I said.

When I had the oil and the spoon in my hand I turned out a spoonful of the oil and called: "Ellen, Ellen, come, Ellen! Kitty, Kitty, come, Kitty!"

The cat jumped up quickly from the cushion where she had been lying and ran purring to my side. Ellen only stuck her head out from under the table and regarded me with wide-open-eyed amazement.

"Ellen, Ellen, come Ellen!" I repeated. Ellen continued to look at me without moving.

"Very well, then," I said, "the cat shall have the oil," and I held the spoon down. Tabby quickly lapped up the oil and, looking up into my face, purred for more.

Then there came a rush of white from under the table, and two soft arms were thrown around my neck, and kisses showered on my face. "You're the bestest uncle that ever was, and I love you already 'most as much as I do my papa and mamma, and cats do love cod-liver oil, don't they?" Ellen exclaimed, between her hugs and kisses. "Good-night," and she gave me a great smack right on the lips, and running up to Mary Jane said: "Now I am ready to go to bed, Mary Jane."

As she took the little white hand in her wrinkled old one and led Ellen from the room, Mary Jane turned to me and remarked: "I am afraid Esther's babes will liven up the old place a bit."

CHAPTER II.

A Battle Royal.

I was always an early riser, even for a farmer, and when I awoke the next morning the sun was not yet up. Teddy was sleeping soundly in his bed. I dressed as quietly as possible, so as not to awaken him, and went out to the barn to help feed and milk the cows and to attend to the other stock. Jake, my hired man, was up in the loft throwing down hay for the horses, and I was in the cow stable milking, when, suddenly, there arose such a deafening clamor of gobbling turkeys, squawking ducks, cackling hens and hissing geese in the yard back of the barn that I nearly upset my milk pail in my haste to see what was happening, for, amid the babel of sounds, I thought I could distinguish the voices of the children.

"Great Scott! And they are only just out of bed!" I groaned, as I rushed toward the scene of the commotion.

The moment I reached the stable door I stopped. The barnyard contains about an acre of land, with various sheds for the cattle and sheep, and is enclosed by a high board fence. Just south of the yard is a large pond where the ducks and geese swim. The barn is built on a small knoll and from the door where I stood I could overlook the entire yard. I had a large flock of turkeys and geese, and two hundred hens and fifty or more ducks. Apparently all these fowls were on the warpath, led by the turkey gobblers and the ganders; and the objects of their attack were Teddy and Ellen. It was the sight of this astounding battle royal that stopped me where I was.

Ellen stood in a corner of the barnyard fence, with hands pressed tightly against the sides of her dress, her face as white as milk, and her big frightened eyes watching, with dauntless trust, every movement of her brother. From where I stood I could see her tremble, yet she did not cry. And Teddy was proving himself worthy of her trust. He stood directly in front of her, a stout wooden sword in his right hand, his air gun in his left, and a great toy pistol in the belt around his waist. His face was white, but there was a grim determined look about the boyish mouth that told, more plainly than words could, his purpose to defend his sister, even to the death, for to the two city children these unknown monsters of the barnyard were terrible and deadly beasts. Indeed, Ellen was in imminent peril from wing and beak; and only the bravery and sturdy strength of Teddy kept the turkey cocks and the ganders

from tearing the bright red dress, which had so enraged them. In front of the two children were all the fowls of the barnyard, led by an old gander and a mammoth turkey cock; and all were cackling, squawking, hissing, gobbling and ruffling up their feathers and stretching out their necks in a way to strike terror to any childish heart.

At the moment I reached the stable door the turkey cock and the gander both made a rush for the children.

"Here they come! Look out!" Teddy shouted, and dropping his now useless rifle he gripped his sword with both hands and swung it aloft.

"Oh, Teddy, don't let them kill me!" Ellen cried, shrinking back closer into the fence corner.

"Trust the strength of my right arm and good sword, sister! I will defend thee to the last!" Teddy shouted back, and he brought down his sword with all the strength of his two sturdy arms. The blow landed right on the outstretched neck of the gobbler, and was delivered with such vim that the wooden blade snapped in two, while the turkey cock turned a double somersault backward and whirled and thrashed around in the throes of death. With a shout of triumph Teddy dropped the broken sword, and, bending down quickly, seized the air rifle by the barrel and swung it above his head.

"Bravo!" shouted the hired man, almost ready to leap from the loft window in his excitement. "Even the Black Knight could not have struck a better blow!" My hired Englishman, Jake, was literary and had just finished reading Ivanhoe. "Now, knock th' bloomin' 'ead off that old gander!" he yelled.

For my part the sight of the lad's courage had thrilled through me like old wine, for I love the sight of a brave deed; but I did not care to have that athletic nephew of mine knock the "bloomin' 'ead off" of any more choice specimens of my poultry, so I gave a shout and rushed to his rescue, scattering hens, ducks, geese and turkeys in every direction. I was just in time, for the wise old gander, taking advantage of the opportunity afforded by the broken sword incident, had seized Teddy by the seat of his trousers, and was beating him furiously with his great strong wings. Teddy yelled and struck blindly with his rifle, but the gander was in the rear where the rifle could do little execution, and the blow from a full-grown gander's wing is not to be despised even by a man. By the time I reached him the gander had knocked the breath nearly out of Teddy, but not his courage, for he had dropped his rifle and was pounding the great bird with his fists when I caught him up in my arms and forced the strong beak to let go with a kick from my heavy boot.

"Hand me my rifle, quick, Uncle John!" he cried, struggling in my arms. "I'll kill that old hissing thing! I'll—"

Then there was a glad cry and Ellen threw herself into my arms.

"Oh, Uncle John, you saved my life and I love you!" and she burst into tears.

I took Teddy on one arm and Ellen on the other and bore them in safety out of the yard, amid the cackling, squawking, hissing protests of all the feathered folk. Then I returned and sadly picked up the dead turkey gobbler, the prize bird of my flock, and, carrying it to the fence, threw it at the feet of Teddy.

"There, Teddy," I said, "we will have a prize-turkey dinner today, thanks to your strong right arm and good sword. You have proven yourself a hero; and I am sure Teddy Roosevelt would do as I do, if he had been here and seen you defending your sister," and I clasped his right hand in mine and shook it heartily, as I would the hand of a man.

Teddy's face flushed red, and he looked down. "Uncle John," he said, in a low voice, "I don't deserve your praise. I was never so scared in my life; but, you see, there was Ellen and it would have been awful if those horrid things had got at her. And that turkey cock looked so terribly red, and angry, and big, and made such horribly gobbling noises, and that awful white hissing thing! Oh, Uncle John, I always do want to be brave!" and the little lad burst into tears.

I stooped quickly, and, gathering him up in my arms, held him close and comforted his troubled little soul by explaining to him how he had shown the noblest kind of courage in defending his sister, and that to fear danger and yet to face it without flinching was the highest form of bravery. Presently the tears were gone, and when I put him down he said, (Continued on page 467).

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THINGS TO BE GLAD FOR.

BY L. M. THORNTON.

Things to be glad for? Blue of the sky,
And crisp cool breezes that riot by;
The sweep of meadows that stretch away,
And bins of barley and mows of hay.
Cattle and horses, and soft-wooled sheep,
And a cellar stocked for the winter's
"keep."
Nuts new-gathered and apples gay,
Plenty and more on Thanksgiving Day.

Things to be glad for? A shelter warm,
Through cold of winter and biting storm;
A cozy chair and a book to read
For the mind's uplift and the body's need.
Though trees are barren and leas are
white,
Rest and comfort and heat and light,
The calm and peace of my simple way
Are blessings I prize Thanksgiving Day.

Things to be glad for? A friend sincere,
Leal and loyal from year to year;
The voice of kindred, their clasping hand,
And hearts that my own heart under-
stand;
Loved ones near me through sun and
shade,
And a soul of the Future unafraid.
Life's humble things are they all, do you
say?
But 'tis these that make Thanksgiving
Day.

WHERE THE HEART IS, THANKS-
GIVING IS.

BY MRS. FRED NISEWANGER.

Winter comes early ten thousand feet
above the sea so, although but a little
past the middle of November, it was not
surprising to see the buck bushes bend-
ing under the weight of snow that had
been falling all afternoon with the soft
persistence of Rocky Mountain countries.

Lisle Vernon stood at a window of the
little home in the shadow of the firs, a
letter and a slip of paper in her hand,
her eyes absently following the fading
outline of Jed Stallman and his pinto,
who were on their way home from the
grocery and postoffice, and had left the
Vernons' mail in passing.

She was dimly conscious of crackling
pine knots and playful shadows that
were beginning to dodge about in the
darkening room, for their insistence in-
truded on that other picture of home
hundreds of miles beyond the mountains,
down where the grasses were yet brown
and the pumpkins still gleamed in some
of the corn rows.

A quick flit of her free fingers dashed
the mist from her eyes and once more
she skimmed through her father's letter,
lingering with tightened lips over the
last sentence, already memorized: "It is
a little Thanksgiving present for you,
little girl, to use just as you please; but
we hope it will bring you back to eat
Thanksgiving dinner with us."

The check was the more tantalizing
because its figures just covered the price
of a round trip ticket and necessary
comforts, with a little extra for pin mon-
ey; but Lisle slowly put both it and the
letter back into the envelope. With a
last glance out at the storm, whose soft
flakes fell with a monotonous prophesy
of the long train of days that must come
and go before the Easter flowers would
blossom on the mountain slopes and the
little creek again sing near the door, she
went into her bedroom.

When she came back ten minutes later
it was with empty hands; the battle was
over. If her lashes drooped a little heav-
ily, the corners of her mouth did not.
"Rob couldn't possibly leave the stock
now," her mind had reasoned, against
the longing of her heart, "even if he
could spare the money, and I know he
needs all of that for winter. No," she
had considered slowly in answer to a
tantalizing mental suggestion, "it would
never do to go and leave him here alone."

They had been married a little more
than a year but this would be their first
Thanksgiving alone together; last year
they were still among the home folks. It
was a long step from the banker's home
in Gregory to the ranchman's home in
this fir-rimmed park, and there is a dif-
ference between a month's vacation in
the mountains with a party of fellow
teachers and a whole year there pretty
much by one's self.

With a glance at the clock, Lisle re-
plenished her fire and began to prepare
supper for the hungry young man who
was now making his stock comfortable
for the night. She gave a little extra
care to the preparation of the meal with
an unconscious feeling of guilt because
she had faltered when she heard the
home call. A cook's conscience makes
restitution through her preserve jars and
jelly glasses.

Then Robert Vernon came in and saw
the cozy home picture with glad, thank-

ful eyes. "Isn't this fine?" he demanded.
"I like a nice little snowstorm when I'm
comfortable and know that everything
outside is, too."

"You great, big boy!" Lisle smiled.
"I'll warrant you want to hunt up a
hand sled or make snowballs this very
minute."

"No, I don't," Rob grinned, with a
glance at range and table. "I want
broiled grouse and hot biscuits and sar-
vis berry preserves this very minute, and
skiis when the snow crusts over."

"May your wants always be as easily
gratified," his wife answered with laugh-
ing seriousness, placing the chairs and
laying a couple of letters by his plate.

"Mr. Stallman brought the mail," she
said. "There's a magazine and a couple
of the weeklies in on the stand."

Rob picked up his letters. "Didn't you
get any?"

"Yes, I've one from Mary," taking it
down from the clock shelf and handing
it to him. "She's as jolly as ever; it will
do you good to read it."

"All right," Rob agreed, for they al-
ways shared each other's mail, "though
I'm not in any special need of being jol-
lied up."

He looked questioningly at Lisle, hesi-
tated, then tore open his letters and read
them aloud as he ate. Several times
during the evening he glanced at her
wonderingly and, a couple of days later,
when he had puzzled out his answer, he
came up behind her quietly, as she sat
sewing, and tucked a little roll of bills
in her hand.

Lisle looked up with a surprised, "Why
—what—Rob?"

"For your Thanksgiving back home,
dear," he answered with his quick, kind
smile.

"The money you need to finish up
your sheds," she accused.

"The money the sheds can get along
without," he corrected, dropping down
beside her and taking her in his arms.

"Oh, I'm not so stupid as I look, little
woman," he went on, with a railleury that
sounded a little forced. "You've been
brave and you didn't intend me to know
—there, dear, don't—" his own voice was
husky, "but I've seen that it was going
to be hard for you to stay here over
next Thursday."

"It's just a sentimental notion," Lisle
accused, more to herself than to him.
"I've always been back home for Thanks-
giving but I've got to learn that there
are other places."

"Not now; it will come easier next year
when you get more used to the mount-
ains and the ranch is in better shape.
Jed Stallman said he brought you a let-
ter from home the other day, but you
didn't say anything about it, so I figured
out it had made you homesick and you
didn't want me to see it."

Then he put the bills in her hand
again. "There's the price and," with de-
ceitful cheerfulness, "I'll open up some
of your fine jars and get up a Thanks-
giving dinner that would make your hair
stand on end."

Lisle laughed at the picture but said
firmly, "I couldn't think of using this
money, Rob," then added suddenly, un-
consciously surrendering, "I don't need
to."

When she had told him about the check
hidden away in her trunk his heart shone
out from his eyes, though he rallied light-
ly, "and you'd let me be a selfish brute
and force me to be a villain like that,
and spoil me utterly!"

Lisle laughed at the picture but said
her objections, and presently they were
planning and packing, and she was to
take the stage next day.

Rob went with her to Pinos Junction
where passengers exchange the discom-
forts of the stage for the questionable
comforts of the narrow-gauge spur that
climbs across the Divide to the main line.
He loaded her with messages and talked
on cheerfully and steadily, so that it was
not until he gave her the long kiss, at the
conductor's trite "All aboard," that she
felt a little catch in her throat.

The catch tightened when she saw him
on the platform, his shoulders drooping
a little, though he smiled and waved his
hand; but when the valley was really be-
hind her and the engine puffing up slopes
and through snowsheds, she swallowed
hard, closed her eyes and let her mind
go on ahead to that older home and the
scores of friends who would welcome her.

When morning came she pushed up her
shade. The mountains were behind her
—a rugged wall reared between her and
her new life. Before her were the plains,
with a wide path of gold leading straight
across them to the heart of the sun just
showing above their rim. Lisle's tired



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Grandmother's Thanksgiving—By E. L. K. W.

eyes smiled a little when her mind began to quote absurdly, "And broad is the path—" but she paced the platform awhile after the train pulled into the union depot at Denver, and the crisp air did her good.

There were crowds of people but she was more alone than when among the firs and after a little she walked resolutely in, inquired about a train, checked her hand baggage, then pushed through the swinging doors and across the court to 17th street. Ignoring the line of cabs and importuning drivers, she walked on briskly, headed for the big stores, with the pink of her cheeks and the sparkle of her eyes coming back gloriously.

The hours slipped by. When she crept up from the plains, stretching away limitlessly, and the twilight of the mountains came down to meet it, a telegram went east but Lisle went west. She had not rested much the night before, but now she slept, wrapped in the peace of the mountains—and that other peace.

"Just ran down to Denver for a day of



"This little pig went to market."

shopping and some Thanksgiving goodies," she explained to an acquaintance on the platform at Pinos Junction when she stepped from the train. "No, Mr. Vernon was not expecting me today so I'll have to go out with Mr. Samuels; and if he doesn't hurry," she turned to the driver with a smile before stepping into the stage, "I shall not get home in time to finish up my baking."

"Oh, I'll hurry, ma'am," the old driver chuckled, "What's lackin' in style's always made up in drivin'."

Lisle laughed—it was easy to laugh now—thinking the driving must have quite a balance.

At last, after fifteen interminable miles, the snug little home among the firs came in sight. Lisle leaned forward and saw a thin curl of smoke winding upward.

"Would you mind driving a little slower so 'we won't make quite so much noise, Mr. Samuels?" she begged. "I think Rob is starting supper and I'd like to surprise him."

"Sure not, ma'am," reining the leaders in sharply. Then his blue eyes twinkled on her for an instant. "Guess you won't be none the less welcome for bein' a surprise."

Lisle paused at the closed door, lips parted, breath coming a little quickly; then a stove lid crashed and she turned the knob unheard.

Her glance swept the room and rested on the tired looking figure by the stove; then her voice tried to cry merrily, "Flapjacks for supper, Rob! It's a mercy I didn't stay away longer, you'd have ruined your digestion."

The tired figure, rested, turned. "Lisle?" then again, when he had her hands, "Lisle!"

"Yes, it is not my ghost," but the lips that tried to laugh, trembled, and she buried her face on his shoulder. "Oh, Rob," she cried, "why did you let me do it? It is half your fault," she scolded,

Many bright scenes, in fond memories, have I,
Many of days in my childhood, gone by;
Dreams of the past now my heart often fill,
Causing its pulses with pleasure to thrill.
Of the bright scenes that today I recall,
One stands pre-eminent over them all—
'Tis of our family, gliding away,
Going to Grandmother's, Thanksgiving Day.

Father and mother, with sweet baby Ray,
Henry, Maria and I filled the sleigh;
Hearts warm and light, and with faces aglow,
Speeding along over new-fallen snow.
Sleighbells rang out in a sweet merry chime
While the gay horses stepped proudly in time;
Sure, were we all, with the short journey o'er,
Welcome awaited at Grandmother's door.

Clad in her cap and white kerchief to wait,
Off she peered out toward the road and the gate;
Faithfully watched, till at length we were spied,
As 'long the highway our prancing team hied;
Welcomed she all in a loving embrace,
Ushered us into her warm cozy place
Where we were greeted by other friends, dear,
Went to assemble, this day of each year.
Out from the cookroom, where viands were made,

Poured fragrant odors, the house to pervade;
Ample provisions were made for us all;
Soon at the table we answered the call;
Gathered around, each with appetite keen,
Happy, the old and the young might be seen.
Many grand festivals since I have shared,
Still, none with this could by me be compared.

Children were Grandmother's special delight;
Ruled them in kindness, maintaining the right,
Tactful, admonished in sweet gentle way,
Or, to instruct, often joined in their play;
Many bright days have I spent on her farm;
Plain though her home, it for me held a charm,
And, in my dreams, I still ride in the sleigh,
Going to Grandmother's, Thanksgiving Day.

Time rolls along and we now have grown old,
'Tis our own grandchildren now he behold,
Coming to celebrate Thanksgiving Day
Here with their grandparents, furrowed and gray;
And, as in praises and thanks we would bow,
Memories awake, and I mentally vow:
Thanksgiving Day, to these children, shall be
Just what my Grandmother's once was to me.

trying to fight back the tears, "letting me be so selfish."

"Why, little girl, it was all right."

"It 'wasn't, but it is," Lisle corrected, drawing back a little to look up in his face, and going on impressively with shining eyes. "There's a fur coat coming for you, Rob, and a great, wide, luxurious couch for that corner," pointing to a space between sunset and firelight, "and—a—real—pumpkin—for pies! I found some big sweet ones in Denver."

Then she whispered longingly, "If we could only have both gone, Rob, but—" there was a sharp catch in the soft voice—it wouldn't be Thanksgiving—anywhere—without you."

"Next year, sweetheart," and Rob held her close, "we'll make it come that way. This is a good world, after all."

Lisle's face lifted. "And there will be Thanksgiving in the mountains, as well as on the plains."

USING THE CAMERA IN WINTER.

BY FRANK H. SWEET.

Not many families these days are without a camera, owned by one of its members. There are few subjects that appeal more strongly to the amateur photographer than winter scenes. Snow, being white, or nearly so, requires very short exposure, and this leads many persons into trouble when they may be trying to photograph people or other objects in the snow. They then, in order to try to bring out detail in the dark figures, force the

development of the plate or film, and as a consequence, lose all quality in the snow and usually fail to save the detail of the darker objects. To avoid this it is necessary that the exposure should be made with reference to the darker objects. For instance, tree trunks, evergreens, or figures in dark clothes require a comparatively full exposure. This would probably mean over-exposure of the snow if ordinary plates were used, therefore it is well to use isochromatic plates, and still better pictures will be obtained if a ray filter or color screen is used with these plates. In any event, it is best to use a rather weak developer, especially in the case of under exposure, as when photographing rapidly moving objects, when the exposure may be cut down to a small fraction of a second.

Winter pictures may be said to require just about the same exposure as would be needed in summer, for though the snow reflects a great deal of light this is counterbalanced by the fact that the sun, being lower, is far less powerful.

When the subject is mainly snow, with the darker objects at some distance from the camera, the photograph is made with the idea of showing the snow, and a very short exposure will be needed, shorter than for a summer landscape, whereas if the darker objects were to be considered, the exposure would be approximately the same. It is frequently advisable to break up the dead white of the immediate foreground by walking through the snow; this will often give just the right amount of shadow.

In very cold weather there is danger of the lens shutter jamming. This is particularly true of some of the more complicated types, so be sure to see that everything is in working order before making an exposure. The curtain shutter and the more simple patterns of the between-the-lens kind are not often affected by the cold. Another important thing to guard against is moisture freezing on the lens when it is taken from a warm room into the cold air. It is advisable to place both camera and plates outdoors for some little time before using them. Examine the lens carefully before making an exposure and, when doing so, avoid breathing on it. Don't dust plates with a hair duster in a very cold place as it will cause them to attract the dust.

Do not develop plates while they are chilled as it is difficult to produce good results. The temperature of the developer should not be lower than 65 degs. in cold weather; 70 degs, or even 75 degs.



What ails the boys? Are they taking a nap? No; they're waiting to hear the kodak snap.

is better. Do not develop with the idea of securing over-strong contrasts, for they are not at all desirable; aim rather for delicacy and softness. One point that should be understood in the relation between exposure and development is the

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contrast existing in the original subject. For instance, a dark tree trunk against a brightly lighted sky, with dazzling white snow, would require somewhat different quality of negative than would be wanted if the subject were a snow storm; in the one case the plate would develop with a snappy brilliancy (which must not be allowed to reach too great a degree of density) while the other would appear extremely flat. Do not be deceived by this, but carry development reasonably far.

For landscape work the best effects can be obtained while the sun is low, the morning light being much better than that of the afternoon, when there is apt to be a lack of "atmosphere." The early morning mists of winter offer the most exquisite effects. In order to secure them it is well to have the camera constantly ready, for the best effects are transient, so that when they occur there is no time for fussing with loading plate holders, searching for tripods and other parts of the outfit. Be ready, be up early, and act quickly.

AROUND-THE-WORLD HARVEST TIME.

BY W. J. GRAND.

While enjoying your winter fire, perhaps discussing your Thanksgiving dinner and recounting the manifold blessings which have been yours during the busy season now drawing to a close, did it ever occur to you that at that very moment the harvester is at work in some part of the world? That while one is resting another is bringing forth fruit?

Taking the months in their order, we find that January sees harvest ended in most districts in Australia and New Zealand, while the people of Chili and other countries of southern South America are just beginning to reap the fruits of their toil.

In February and March upper Egypt and India begin and continue harvest through these months.

April enlarges the number with harvesting operations in Syria, Cyprus, on the coasts of Egypt, in Mexico, Cuba, Persia, and Asia Minor.

May is a busy time in central Asia, Persia, Algeria, Morocco, southern Texas, Florida, China, and Japan.

June calls forth the harvesters in California, Oregon, the southern United States, Spain, Portugal, Italy, Hungary, Roumania, Turkey, the Danubian states, southern France, Greece, and Sicily.

July sees harvest in England, Nebraska, Switzerland, Iowa, Illinois, Indiana, Minnesota, upper Canada, northern France, Germany, Austria, and Poland, besides several unnamed northern states in our own country.

August continues the gathering in the British Isles, France, Germany, Belgium, Holland, Manitoba, lower Canada, Denmark, and Russia.

September rules northern Scotland, southern parts of Sweden and Norway, as well as the cold islands of the North Sea.

October is the harvest month for corn in America and for hardy vegetables in Northern Sweden, Norway and Ireland.

In November harvest time begins in South Africa, Patagonia, and South Australia.

December ends the year by ripening the fields of Argentine Republic, Paraguay, the southern part of Chili and northern Australia.

WHAT IT MEANS TO BE MOTHER.

BY FLOY SCHOONMAKER, ARMSTRONG.

Hoping and planning for something so dear;
Yearning and praying in wonder and fear;
Grappling with anguish while death hovers near,
That's what it means to be mother.

Feeling the pressure of soft baby hands;
Finding rare pleasure in duty's demands;
Knowing the rapture of love's closest bands,
That's what it means to be mother.

Guarding and guiding and teaching alway;
Following ever where willful ones stray;
Coming to places where one can but pray,
That's what it means to be mother.

Longing for sight of some dear absent face;
Gazing thro' tears at some long vacant place;
Grieving o'er errors that love can't erase,
That's what it means to be mother.

Waiting and watching—no matter how long;
Hearing, at twilight, the thanksgiving song;
Leaning, at last, on one's own who are strong,
That's what it means to be mother.

THE BACHELOR UNCLE.

(Continued from page 464).

with a little sigh: "I do wish Teddy Roosevelt had seen me."

At that moment I felt a tug at my elbow, and, looking down, saw Ellen's tear-stained face gazing up into mine. "Comfort me, too, Uncle John," she said.

"Now, tell me how it all happened," I asked, as I picked Ellen up in my arms and proceeded to "comfort" her.

"When I woke up I thought I would explore the country," Teddy began, "cause the country is new to me. So I got my gun, and sword, and pistol; and Ellen woke up and came with me, 'cause the country is new to her, too, and she wore red, 'cause she was going to be a gipsy, and we were going to camp out just like gipsies after we had done some exploring. First we came to a high fence, and I boosted Ellen over, and climbed over myself. Then we started toward a great house with big doors in it and almost no windows—"

"And I saw some dear little chickies running on the ground," broke in Ellen; "and I tried to catch one and their mamma tried to bite me, and then a great big hissing old thing stretched out its neck, and flapped its wings, and ran at me, and something big said, 'Gobble! gobble!' awful loud right near me, and made a fan of its tail, and got red in the face, and scratched its wings on the ground, and ran at me; and then 'most a thousand other big birds got mad and all ran at me, flapping their wings and stretching out their necks and making the most awful noises; and—oh, Uncle John, wasn't Teddy brave? I guess I'd be in Heaven now if it wasn't for Teddy, and I want to hug him," and she clambered out of my lap and threw her arms around her brother's neck.

"Don't be a baby, Ellen," Teddy said, breaking away and running to the house.

I picked up the turkey gobbler and followed, with Ellen clinging to my hand, thankful that it was only a dead turkey gobbler.

After breakfast I left the children in charge of Mary Jane, and went to a distant field to cultivate corn. As I rode back and forth through the long rows the innocent words of Ellen, "Uncle John, you ought to be married," kept recurring to me.

Alas, how her words made my heart ache! And yet it was now two years since that Sunday afternoon when Elsie had met me at her door and said: "Mr. Delvin, the man I wed must be a gentleman. You are not. Take back your ring and presents. Good day, sir," and then without another word, she had handed me back the engagement ring I had been so happy and proud to place on her finger and all my love-presents, and had shut the door in my face.

The old pain was at my heart anew today, for the innocent prattle of little Ellen last night and the words of Mary Jane had opened the wound afresh; and the old questions were again troubling me. Why had Elsie dismissed me so peremptorily, so scornfully? Why had she refused to give me any reasons for her actions, and declined to see me or receive any communications from me. I could not understand it. I only knew that someone, somehow, wrongfully had convinced Elsie of my utter unworthiness. But how, and why, and who? If I could but lay my hands on the wretch I would drag him to the feet of Elsie and choke the truth out from between his cowardly lips. I would prove to her that I was worthy of her love, and then the poignant bitterness of the thought that she believed me base at least would be gone.

What a marvelous thing love is! Here was I, a man six feet and five inches in my stockings, weighing some two hundred and forty pounds and muscled like an ox; and yet love made me tremble at the thought of a slip of a girl, who had scorned me and spoken words to me that no man living could have spoken without a blow; and still, despite this scolding, I even now, would esteem it a joy to give my life for her good. I knew that this love was noble and ennobling; yet I locked it in my bosom, as if it was vile, and trembled lest the hand of a friend should find the key.

And Elsie—I knew she had loved me. I had read the sweet truth in her eyes and acts a thousand times. I knew that the shock of my apparent unworthiness had been a woeeful blow to her; and yet—what could it all mean? I asked myself again, as I had a thousand times before.

(To be continued).

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Woman and Her Needs

At Home and Elsewhere



Healthy Bodies and Clean Morals are The Rule in The Country.

"City or Country for Our Children," the question has been brought very forcibly to our attention by the letter from "Disillusioned Mother" which appeared in The Farmer of November 11. Serious charges were made by the writer, charges that country children know nothing at all about nature as compared to city youths; that they are not so strong, because they are poorly fed and do not exercise, and, most important of all, that their morals are not so good.

A few years ago I was a country school teacher, and for five years I taught country girls and boys. And, although I was a high school graduate and had read several nature books, I learned more from what those children told me about nature than I had ever learned in any school. Theoretically I was perhaps better informed than the children on some subjects, but turn me loose in the woods and I didn't know where to look for one of the flowers I could analyze with the aid of a huge botany. The children, on the contrary, knew just where to look for every flower, they knew which ones liked the moist dark dells and which preferred the sunshine. They knew the haunts of birds and fourfooted creatures, rabbits, squirrels and chipmunks. They knew, too, the habits of all their furry friends and brought things to my attention that I had not learned in books. "Flight of fowl and habitude of the tenants of the wood," these boys and girls knew because they had grown up amongst them.

I never noticed that they lacked exercise, either. Walks of from half a mile to two miles to school, preceded and followed morning and night and numerous "chores" for the boys and housework for the girls made sturdy muscles and clear brains. And at school there was baseball, wrestling, tag, coasting in winter and all sorts of sports to quicken the blood and fill the lungs with pure air. To be sure, there were no dumbbell exercises nor Indian clubs nor trapeze performances, but carrying wood and water did very well for arm strengtheners and climbing fruit and nut trees to shake down their load, not to mention clambering all over the hay mow for eggs, was a fairly good substitute for horizontal bar gymnastics.

As I remember the dinner pails, too, the food was quite eatable. Indeed, I've often sighed for a return to it since I have lived in the city and eaten foods made of candied eggs and imitation butter. A bit of the fried chicken I used to see in some of those dinner pails would be a most welcome exchange for the tough drumsticks I now nibble. The children don't look starved, or anemic. I can't recall a single gray, pinched face such as city teachers look into daily. There were plenty of rosy cheeks and bright eyes and I can not remember that a single child ever had indigestion.

Their morals, too, weren't in such a shocking state as "Disillusioned Mother" says she finds them. Every day we spent 15 minutes committing to memory some "memory gem," and the children were even more eager to learn them than I was to teach them. The mothers without exception, were earnest, conscientious women, anxious to bring their children up well and as a rule their efforts were crowned with success. If the children had any vicious habits, they kept them carefully hidden and neither parents nor teachers ever found any great wrong.

For five years I worked with country children, and I think I ought to know them as well as "Disillusioned Mother," who has lived in the country a year, evidently with the "I-am-holier-than-thou" attitude. Besides, conditions have steadily improved since my day. If she has really found things as she says, I am positive that there is no other spot

in the state where such conditions exist. I believe, however, that she is mistaken. I am inclined to think she belongs to that class of people who judge everyone in the neighborhood by a single example. She may have run across a single bad boy, and jumped to the conclusion that the rest were all like him. But they are not.

Every once in a while some writer seizes his pen and dashes off a burning article to prove the superiority of the city over the country. He proves to his own satisfaction that city bred lads are the superior in every way. But the country boy still goes on picking up the larger share of the positions of trust in the country. He may not know so much about some things as the city lad. He is often silent when others around him are talking of their favorite actor or actress, the batting average of the different baseball players, or the time made by the swiftest race horse. But he knows how to work, how to take orders and how to give them. He is honest, straightforward and of clean habits, and as a rule is a much deeper student of human nature than the city bred young man. Having known but few people in his earlier years he has acquired the habit of studying each new acquaintance and of storing his observations.

I believe "Disillusioned Mother" will admit her mistake when she sits down and thinks over just what she has written. The charitable view of the thing is to conclude that she had overworked that

day and brought on a backache, or that she had eaten a bit of that "soggy" bread she decried and was suffering from indigestion. When she is in her right mind, I am sure she will see she has greatly overstated matters. On the whole, though, I am glad she wrote the letter if it relieved her, for it has been a pleasure to me to dispute her statements. Besides, it is not a bad thing for any of us to see ourselves through others eyes, even if those eyes are crooked. We are so apt to grow egotistical if someone is always patting us on the back.

DEBORAH.

Editorial Note.—The article entitled "Back to the City," which appeared in our November 11 issue, had been in the office for several weeks and the question of its use was considered for some time. We finally decided to publish it upon the ground that the readers of the Woman's Pages have seldom had the question of rural conditions as compared with urban conditions, presented from the other side. We must confess that the attitude of "The Disillusioned Mother" had none of our sympathy, in-so-far as her views of country conditions were concerned, and the large number of replies to her letter received at the office has confirmed our contention that the environment of rural surroundings is the greatest argument among many others for living on the farm, and in that environment there are nurtured the men and the women who constitute the backbone of our civilization. We regret that we lack space for the publication of all the answers made to the article in question, but we shall select a few and print them in succeeding issues that those who see these columns may read the opinions of others.

Preparation Of The Thanksgiving Dinner.

By Mrs. Mary E. Underwood.

THE little motto which begins with the words, "Live, Laugh and Love," is a good motto to follow, and especially so on the day of Thanksgiving. Although every day of the year should witness a thankful spirit, still it is a sweet custom that sets one day apart on which not only to feel inward gratitude but a day, the hours of which may be given up to deeds that render those about us happy and glad that they are not insensible to life and love. The observance of this day also serves to remind many of us (who grow careless in our appreciation of blessings as our natural due), how much we have for which to be thankful. It is one of the sweet notes that is almost universally sounded in our yearly routine. Families, long separated, gather about the Thanksgiving table and

vacant chairs are filled by strangers or some of those less fortunate.

Although there are many ways of extending hospitality at this season, yet it is most difficult, in fact, impossible, to improve upon the good cheer aroused at the festive board. Custom has made it very easy for the hostess to arrange a suitable menu, for turkey, cranberry sauce, pumpkin pie, mince pie, plum pudding, nuts and raisins are important features of the dinner and have been so ever since our dear old grandmothers entertained over these delicious viands prepared in their spacious brick ovens.

A pretty decoration for the center of the table may be fashioned with a straw basket of graceful design by either gilding or white enameling it and filling it with a variety of ripe fruit. Red-cheeked

apples and grapes add much to the effect of such an assortment of fruit and a large bow of ribbon tied to the handle completes the attempt, rendering the effect desired better than could have been achieved by spending three times the amount at a florist's. Sprigs of wheat may be tucked here and there between the fruit, softening the lines. Tiny sheaves of wheat may be made up and set by each plate or be tucked into each napkin. Lay the table without side dishes, using very large dinner plates in their stead and thus avoid the overcrowded look that takes away the appetite before the meal has hardly begun.

There are so many courses included in the Thanksgiving fare that it is best to cook all dishes very simply, being careful that the food is well done and well seasoned with salt and pepper.

No better menu could be planned than the following:

Oyster Soup
Roast Turkey with Chestnut Stuffing
Cranberry Jelly
Boiled Fish with Drawn Butter Egg Sauce
Boiled Potatoes
Browned Sweet Potatoes
Lettuce Salad with French Dressing
Mince Pie Pumpkin Pie Cheese Straws
Fruit Black Coffee

Roast Turkey.—Dress and clean thoroughly a ten-pound turkey. Place on its side on a rack in a dripping pan, rub the entire surface with salt, and spread the breast, legs and wings with one-third cup each of flour and butter rubbed together. Dredge the bottom of the pan with flour. Place in a hot oven, and when flour on turkey begins to brown, reduce the heat, baste with drippings in the pan and add a pint of boiling water. Continue basting every twenty minutes until the turkey is tender, which will require about three hours. For basting, use one-half cup of butter melted in one-half cup of boiling water. During the cooking turn the turkey often that it may brown evenly. Remove string and skewers before serving. Garnish with celery tips.

Chestnut Stuffing.—One and one-half pints French chestnuts, one-half cup of butter, one teaspoon salt, one-eighth teaspoon pepper, one-fourth cup cream, one cup cracker crumbs.

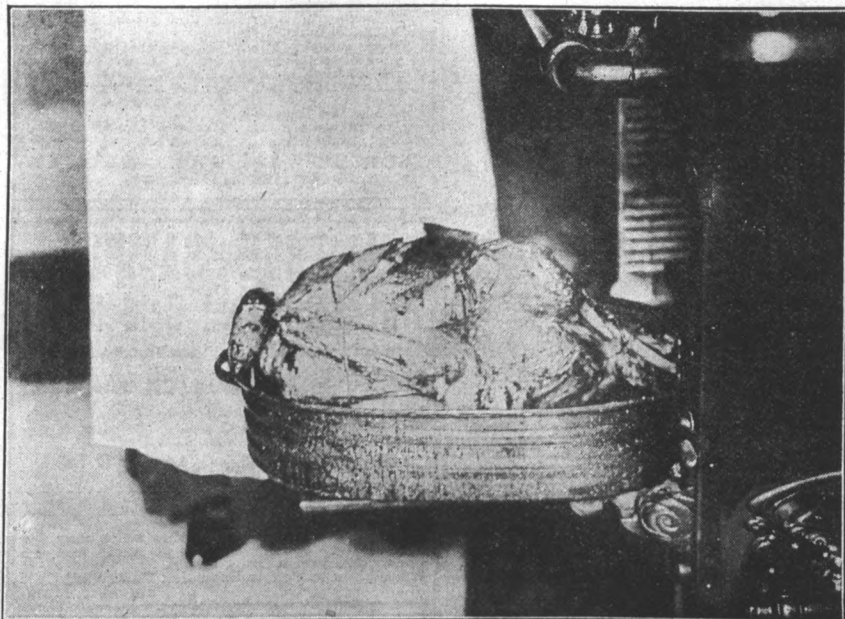
Shell and blanch the chestnuts. Cook in boiling salted water until soft. Drain and put through a potato ricer. Add one-half the butter, salt, pepper and cream. Melt remaining butter, mix with cracker crumbs, then combine the mixtures.

Oyster Soup.—Pour a quart of cold water over a pint of oysters, drain through a colander. Put the water drained from the oysters in a saucepan. Simmer gently for three minutes. Remove the scum. Add to the broth in the saucepan one tablespoon each of butter and flour stirred to a paste. Cook three minutes, or until smooth, stirring meanwhile. Then add half a cup of cream, and season to taste with salt and pepper. When the soup boils, add the drained oysters, and as soon as it again boils and the edges of the oysters curl and separate, remove from the fire and serve.

Boiled Fish.—Dredge the prepared fish with flour. Wrap it in a cloth. Put in a steamer or in boiling water. When done, take from the kettle, drain, place upon a hot platter, remove the cloth, garnish with lemon points and sprigs of parsley and serve with drawn butter egg sauce. A medium-sized fish will boil in half an hour, and when sufficiently cooked will flake and separate easily.

Drawn Butter Egg Sauce.—Cook together until well mixed, a tablespoon each of butter and flour. Add a cup of the water in which the fish boiled. Simmer five minutes, season highly with salt and mildly with pepper and serve in a tureen in which have been placed half a dozen slices of hard-boiled egg.

Cranberry Jelly.—To a quart of cranberries add three-fourths of a pint of boiling water. Cover closely and cook five minutes over a quick fire. Crush with a wooden spoon such of the berries



The Turkey Ready for the Oven.

as have not burst and rub through a colander. Put the strained pulp into the saucepan in which the berries were cooked. Add three-fourths of a pint of granulated sugar and simmer five minutes, stirring constantly.

Browned Sweet Potatoes.—Boil the potatoes until they can be pierced with a fork, but not until tender. Remove the skins, dust lightly with sugar, roll in melted butter and brown in the oven.

French Dressing.—To two tablespoons of sharp vinegar, add salt until the salt is as plain to the taste as the vinegar; if liked, white or red pepper may also be added to taste. Add to the seasoned vinegar six tablespoons of olive oil and sprinkle the mixture over the prepared lettuce in the salad bowl. Carefully turn the lettuce over in the bowl and serve on cold plates.

Cheese Straws.—Roll pie-crust dough the same thickness as for pies. Cut in strips from six to ten inches wide and cut the strips into straws or sticks a quarter of an inch in width. Lay upon baking sheets, leaving a space between the straws a third the width of the straws. Grate rich cheese, season to taste with salt and red pepper and scatter thickly over the straws and the spaces between them. Put in the oven where the greatest heat will be at the top and bake ten or fifteen minutes. Cut the cheese in the center of the spaces between the straws, remove from the baking sheet with a flexible knife and pile tastily on a plate.

Black coffee or coffee with cream, if desired, may be served, as may also tea of any kind. As bread and butter are considered essential at every meal they are omitted from our bill of fare, but must not be forgotten. The quantities called for in the recipes given are sufficient to serve a company of six or eight persons.

Pie Crust.—One-half cup of lard and one-half cup of butter. Work into three cups of flour. Moisten with cold water. Take half the quantity, roll to an inch in thickness, cover with small bits of butter, then form the whole into a roll. With a rolling pin applied crosswise the roll, flatten it, and cover again with bits of butter. Repeat this operation three times, using in all about a quarter of a cup of butter. This is for the upper crust. The other half for the under crust needs to be rolled but once, and very thin for the pan. If to be filled with custard, squash, lemon or cream, bake the under crust first. To keep it smooth on the pan cut a piece of paper the size of the crust and partly fill it with flour. This flour can be used for gravies, etc. Of course, the paper is to be removed before filling the pie for the final baking. This will make four medium pies, both upper and under crust. This is much cheaper than puff paste and better for ordinary use.

Mince Pie.—Four pounds of lean cold boiled meat chopped fine, nine pounds of apples chopped fine, one and a half pounds of suet chopped fine, three pounds of raisins, two pounds of currants, half a pound of citron sliced fine, five pounds of sugar, three teaspoons of ground cloves, ten teaspoons of ground cinnamon, five teaspoons of ground mace, one teaspoon of ground black pepper, six tablespoons of salt, one quart of cider and vinegar mixed with one quart of molasses. Mix all and add the juice and grated rind of two lemons; or, instead of cider, vinegar and molasses, one quart of sherry and one pint of brandy may be substituted. Keep this mincemeat in stone jars; add a little more liquor, if it should become too dry, when about to make the pies.

Apple Pie.—Quarter and pare eight apples. Cut the quarters in two and fill a deep pie plate. If the apples are quite sour use two-thirds of a cup of granulated sugar; if only moderately so, half a cup. Add one teaspoon of cinnamon. Roll the under crust very thin. The upper crust should be punctured for the escape of steam. After moistening the under crust around the edges fold the upper crust under it and press them together to keep in the juice. Bake in a moderate oven from half to three-quarters of an hour.

Lemon Pie.—Four eggs, four tablespoons of sugar, two-thirds of a cup of flour, nearly a quart of milk, two small lemons, a little salt. Bake two under crusts. Mix the egg yolks and sugar well together. Bring the milk to the boiling point, then add the flour mixed with some of the milk to prevent lumping. Stir it until it has thickened and cooked, then remove it from the fire to stir in

the yolks and sugar; return it for a minute to set the eggs; again remove it and flavor with lemon juice and grated rind; when the crusts are done, spread over cream, and over this spread the beaten white of the eggs sweetened and flavored. Put it into the oven a few minutes to color.

Pumpkin Pie.—To make one pie, rub through a sieve cooked pumpkin enough to make two cupfuls. To this add a small cup of sugar, a saltspoon of salt, one teaspoon of cinnamon and one of ginger and a pint of hot milk and mix thoroughly. When cold stir in two well-beaten eggs and fill a pie plate that has been lined with good rich paste. It will require three-quarters of an hour to bake.

Apple Pie with Pineapple.—Bake an apple pie in the usual way, but without sweetening. While it is baking take three teaspoons of grated pineapple, one tablespoon of water, three of sugar and simmer together until the fruit looks clear. When the pie is taken from the oven, spread the pineapple over the apple, replace the cover and set the pie away to cool. The pineapple mixture furnishes the sweetening.

IGNORANT MOTHERS, DISEASED CHILDREN.

BY ELLA E. ROCKWOOD.

To the mother can many times be traced the unhealthy condition of her child. Careless methods concerning cleanliness and food are responsible for much of the disease found among infants, so physicians assert. Time was when mothers allowed nursing babes to sit at the table and fed them whatever food was served for the family meal. Now most parents know better, although not all are as yet educated in this respect.

Not long ago a young mother traveling in the same conveyance with the writer, although a perfect stranger, sought advice concerning her six-months-old babe, which was pale and anemic, undersized and showing every symptom of lack of thrift. Inquiry brought out the fact that although the mother nursed the child, it was permitted to eat potatoes, bread, cake, even meat, which the parent assured me she took pains to "cut fine" for her.

As a final confession she related how the child had cried for sauerkraut a few days before and was not denied. The little one was in such a condition that its very life was apparently threatened by the mismanagement of the mother who loved it as all mothers love their children, and who would have resented any insinuation that it was not properly cared for.

When told that a child should have no solid food for the first year of its life at the very least, this woman appeared surprised and gave numerous examples as showing that other mothers were doing as she did, with no bad results.

Contrast this child's condition with that of a baby fed only on milk, or a milk substitute, and note the difference. Any thinking person should know that an infant is not able to digest solid food until nature has supplied teeth with which to masticate it.

Another grave error in child management of the past consisted in feeding baby irregularly, or whenever it cried. Nothing could be worse than perpetually stuffing its stomach to keep it quiet. Regular two-hour intervals at first, changing to three hours after a few months, gradually placing the meal times further apart, is a much better rule and a sensible one to follow. Baby is not always hungry when he cries, and frequently may cry from the effects of an overloaded stomach.

The number of children made incurably blind from neglect of the eyes, is astonishing, so we are told by physicians. Greatest care should be exercised in this respect and the eyes be kept scrupulously clean and free from exudations. Careful mothers insist upon cleansing the eyes every morning after the bath, in a solution of boracic acid, using a little wad of sterilized absorbent cotton wet in the solution, for each eye.

The charge that loss of sight is sometimes traceable to a mother's neglect is a horrible one to contemplate, yet the fact is undisputably true in hundreds of cases known to the medical fraternity. Great advancement in the care of children has already been made and the number of uninformed parents is annually decreasing. But that there are still some of these left many instances seem to indicate.



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PRACTICAL SCIENCE.

AMOUNT OF PLANT FOOD IN THE SOIL.

BY FLOYD W. ROBISON.

If we were to calculate the amount of plant food removed from the soil by crops and, taking this factor as a basis for calculation, were to estimate the length of time it would take to exhaust the soil of its so-called plant food, we would be surprised to learn how practically inexhaustible the soil is. Now then, when we take into consideration, besides this factor, that in the modern system of farming much or perhaps the most of the plant food removed in the crop is subsequently returned to the soil through the medium of farmyard manure, we will then observe that to exhaust the soil on such a basis is well nigh an impossibility.

It is well for us to dwell upon this point for a moment in order that we may more fully appreciate the wonders of the scheme of plant growth. On the above basis, King has calculated that in the first surface foot of an acre of land there exists 3.7 tons of potash, 1.88 tons of lime and 1.9 tons of phosphoric acid. He states that clover hay demands for its production per ton, 39 pounds of potash, 38 pounds of lime and 11 pounds of phosphoric acid. He determined this factor by an analysis of the plant at maturity. In plainer language, he found, upon analysis of the clover plant per ton, the various quantities mentioned last above. Assuming that these amounts represented the demand of the plant upon the soil, King calculated that there was enough potash in the soil to last 1,521 years; that there was enough lime in the soil to last over 4,000 years; and enough phosphoric acid to last 500 years. If these statements were exactly true, and they are, of course, mathematically correct, so far as the problem is stated, we would not be able to persuade farmers to fertilize, especially with commercial fertilizers, with a great deal of success.

Over against this theory so cleverly worked out there are certain indisputable facts which every farmer knows. He knows, for example, that he cannot produce a maximum crop through a succession of years without resorting to the use of manures and fertilizers. Against this theory again we have the well known fact of the practical exhaustion of soils all about us. We have the exhaustion of the soils of the European countries and, at later date, the exhaustion of the abandoned farms in the New England states, abandoned because a maximum crop could not be produced on the soils which had been undergoing ruinous cropping for a number of years. We have the remarkable experiments, on the Rothamstead soils in England, of Lawes and Gilbert, demonstrating, it is true, that where fertilizers were not applied a crop could be produced through a series of years, but demonstrating with equal truth and equal certainty that the use of artificial manures made possible the continual production, year after year, of a maximum crop.

If it is impossible to exhaust the soil, why is it that the application of such an exceedingly small quantity of plant food units is capable of producing such a startling effect in the way of plant growth? It seems to us that one thing is here very clearly indicated, and that is that an analysis of the plant does not give the true index, or anywhere near a true index, of the demands of that plant upon the soil. As stated previously, we are aware that sugar, starch, oil, and nearly all of the plant food constituents, when reduced to the state of absolute purity, are practically devoid of mineral matter. The exceptions to these are the albumins, of course, which contain some phosphorus and various other compounds in which a small amount of mineral matter seems to be intimately associated with the organic structure of that body. We know, however, that it is impossible to produce a single gram of starch, or a single gram of sugar, or oil, without the presence of a considerable quantity of the various mineral ingredients. Shall we then say that an analysis of the resultant products of plant growth, sugar, starch, etc., will give us a true index of the demands of that product upon the soil? Is it not far more logical to assume that the growth of a plant is caused by a certain concentration of plant food existing in the soil, a nourishing medium,

the life of the soil, which is speedily exhausted of its most favorable balance and when so exhausted the results show plainly in the growth of the plants, the results with which all farmers are familiar.

Likewise with the clover plant; as King truthfully states, an analysis of this plant at maturity will show, in one ton, 39 pounds of potash, 38 pounds of lime and 11 pounds of phosphoric acid, but to state that these quantities of mineral nutrients represent the demands upon the soil of the ton of growing clover is to strike widely, in our opinion, from the truth. Upon an analysis of the different fertilizing materials we would find that the application of the ordinary quantities of commercial fertilizers and the ordinary quantities of farmyard manures, when spread out on the top of the soil, contributes an exceedingly small quantity of mineral nutrient indeed. We know, from practical experience, that the addition of these small quantities is sufficient, under normal conditions, for the production of a maximum crop, but upon analysis of the soil before adding the fertilizer and after adding the fertilizer, it is almost impossible to note the difference. It is apparent that it takes a very small reduction in the soluble contents of the soil to throw the soil water so out of balance as a nutrient medium for plants that its deficiency in mineral nutrients is at once apparent in the growing crop.

Knowing, by analysis, the small amount of plant food nutrients conveyed to the soil in various fertilizers, this fact has been made the basis of the comparison of fertilizers by various commercial houses. More particularly has it been made the basis for the condemnation of barnyard manure in comparison with commercial fertilizers. This has led experimenters, chemists particularly, without exception to spend considerable time sufficient reason therefor. Almost without proclaiming the merits of barnyard manure, without being able to give a out exception they have stated that the value of barnyard manure is out of all proportion to the amount of various nutrients therein contained. Along a similar line of thought, evidently, was the Bureau of Soils operating when it published what became the famous "Bulletin 22, Bureau of Soils," wherein it was stated that practically all soils contain sufficient nourishment for the production of a maximum crop. Indeed, this statement must be considered correct if we reason by calculation from the amount of plant food nutrients contained in the crop at maturity. Perhaps we might illustrate this in a slightly different way by taking an example in the animal world. How near the exact truth would we be if we took, as a basis of calculation, the analysis of the animal body at maturity to judge of the demands of that body upon its food supply? Take, for example, a steer weighing 1,000 pounds, consuming every day of its life perhaps 25 or 30 pounds of dry matter. An analysis of the carcass at the time of maturity, say three years old, would reveal 1,000 pounds of dry matter consisting of albumin, sugar, fat and mineral matter. Have we any right to assume, because of the fact that this animal body shows only 1,000 pounds of these various food constituents at the age of three years, that the demands of this animal upon its food supply have been only to the extent of 1,000 pounds? Again, in this 1,000 pounds there may perhaps be 100 pounds of mineral matter. Have we any right to assume again that this animal utilized, through its three years of life, only 100 pounds of mineral matter? It seems to us that this is quite absurd. Is it not more nearly correct to say that many times this amount was utilized by the animal in reaching maturity, and may we not, with the same logic, say that many times the amount of potash, etc., found in the plant at maturity is used by that plant in arriving at its fullest development.

Repeating again, it is evident to us that there is a certain desirable balance demanded by plants before they will reach their most favorable development. This balance, by successive cropping, is very easily disturbed, and by the addition of manures and fertilizers, constantly and continuously, this favorable balance is maintained. In no other way is it apparent to us how we may explain, in the face of the apparently tremendous quan-

W. J. Bryan builds

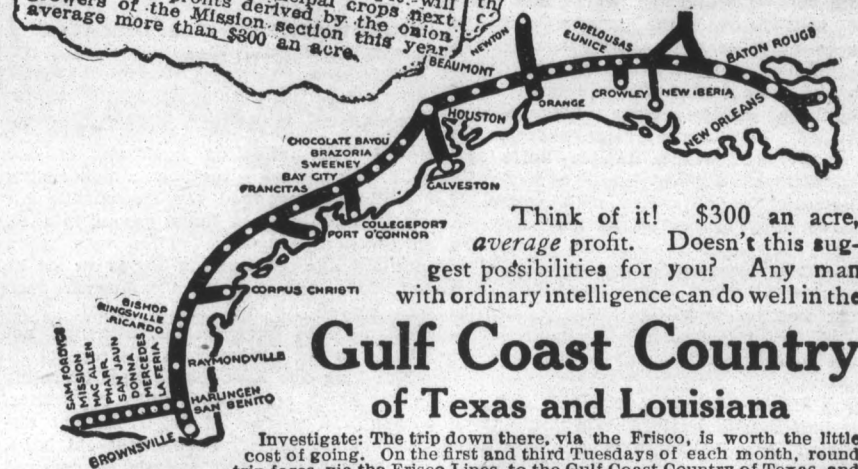
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titles of plant food in the soil, why it is that soils under some methods of cultivation and cropping are so speedily exhausted.

CITY MILK SUPPLY.

With the increase in population in cities dairymen are paying more attention to the very desirable market which the city affords for milk. Likewise, with the increased attention which public officials and individual consumers in cities are paying to the question of sanitation surrounding their food supply, it has become imperative that dairymen supplying cities give greater consideration to the question of the production of clean milk. It has not been a long time since the man who advocated clean clothes, clean cows, and clean hands in the production of milk was considered more or less of a faddist and an impractical man. Habit and custom are strong forces to antagonize, and until recently comparatively few dairymen realized the duty they owed to the consuming public in the matter of clean milk.

A few not exactly philanthropic concerns, but concerns and individuals of considerable foresight, have attempted to market milk produced under fairly modern conditions of cleanliness and sanitation. The reception which these goods received encouraged other concerns to undertake the same thing and it is now possible, in most of our cities, to secure milk which has been produced under more or less sanitary conditions. Perhaps the greatest impetus given to this movement was given when a certain dairy in the state of New Jersey began the putting out of what has come to be known as "certified milk." Certified milk is milk produced under specified conditions and inspected frequently by a medical milk commissioner or by some other source of authority. The requirements of certified milk are various but are all aimed at the point of securing a clean wholesome product. One of the general requirements for certified milk is that it shall not contain exceeding 10,000 bacteria per cubic centimeter. When it is realized that even now the major portion of the milk consumed in our cities contains over 100,000 bacteria per cubic centimeter, we will realize what the reduction to 10,000 bacteria per cubic centimeter may mean.

During the last three years the Michigan Dairy and Food Department, under the leadership of Mr. Colon C. Lillie, began devoting considerable time to the improvement of the city milk supply. It was found that, along with the strenuous sanitary campaign under his direction among the creameries and cheese factories in the state, it was as much to the interests of the dairyman who produced milk for consumption in the cities that the quality of his product should be improved as it was to the interests of the creamerymen and dairymen throughout the state that the quality of butter and cheese products should be improved. Incidentally this campaign for clean milk was utilizing the energies of the Dairy and Food Department in the most commendable way in which they could be utilized.

It is the consensus of opinion among officials throughout the United States at the present time that the greatest function of a dairy and food department is in the controlling of the conditions of sanitation under which various food products at the present time are produced and manufactured. Since the inauguration of this campaign many other states have taken the matter up, and many cities as well, and the dairyman is beginning to realize that he cannot afford to produce anything but the highest grade of milk from a sanitary point of view.

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HORTICULTURE

AN IMPROVED PACKING HOUSE.

Perhaps an explanation of how we converted a barn into a packing and storage house will be of interest to readers who contemplate utilizing some building now on the farm for this purpose. We have not completed the building as we intend to do above ground as yet, but we have the cellar completed and filled with apples, and have the floor above in condition to pack the fruit, and the second story for storage of empty barrels, but have not as yet arranged the lighting and ventilation and floors as we intend to do.

This barn was an old timer, 32 by 38 feet, with quarter pitch roof, the first floor being about nine feet and the second about five feet at the sides. There was a ten-foot door at each end and a smaller side door, also four-foot doors at each end above. It was built when lumber was more plentiful than at present, and has a wide whitewood cornish and whitewood lap siding. It was formerly used as a horse barn but when we remodeled our grain barn, the stables were put in this, it being more convenient for feeding hay and fodder. The barn in question stood near the road and obscured our view, so moving it had been considered a necessity anyway.

Our ground is nearly level, so a basement with open level driveway was out of the question. We came as near to

siderable litter into the cellar, and will not be frost proof. We expect to lay two thicknesses of building paper over this floor and lay a matched floor on strips laid on this, which should allow of keeping fruit in the cellar during the winter. We are also planning on a ventilating shaft to run from the cellar through the roof.

We studied for some time on a cheap and convenient method of lowering and raising barrels to and from the cellar. We finally concluded to place a trap door in the floor near the side door and hang two double six-inch pulley blocks, with roller bearings and patent fastener which will hold the rope at any place, suspended from the ceiling above. We had the blacksmith make an iron ring large enough to slip over the top of an apple barrel, and at each side of this ring place an eye through which the rope could pass to a hook at each side which hooked over the chime of the barrel at the bottom. These hooks supported the weight and the ring prevents the barrel from tipping, so we can handle both headed and open barrels or even boxes. The hooks can be slipped beneath the barrel by tipping it to one side a little, and by placing a circular block on the cellar bottom for the head to rest on the hooks will unfasten when the barrel reaches this block. In this manner we can handle the barrels quite rapidly, and thus far have not used the driveway entrance at all as we can raise the barrels to the first floor and roll them upon a platform wagon more easily. One man can lower the barrels very easily, also

of careful as well as thorough work, I employed a man to dig the dirt away from the trunk of such trees as showed evidence of borers by the presence of the gummy formation at the surface of the ground. Having the soil removed with a hoe to the depth of three or four inches I followed, armed with a good jackknife and a pointed trowel, and carefully hunted out the destructive little pests, using the trowel to remove any dirt that might have been left in the way.

It soon developed that the man could keep out of my way and have time to go over the rows behind me and fill the holes at the same time shovelling in enough extra soil to fill a little above the level. This, of course, demands going three times over the row, but has the advantage of giving me an opportunity to give my personal attention to every tree. The cold wave and storm of the 12th found us with the work unfinished, but we still hope for an opportunity to complete our task before winter really comes. If we are not able to do so we shall consider finishing the job to be one of the urgent needs of early spring. But in urging the doing of the work, the writer would emphatically urge the importance in the choice of a person with whom to trust the work. A careless man may do more harm with his knife than the borers will do if left to themselves. Kalamazoo Co. L. H. STODDARD.

PROTECTING TREES FROM RABBITS.

The large number of orchards planted the past few years has created much interest in the rabbit question. The Kansas experiment station has found that a spray made by mixing buttermilk and common stove soot in the proportions of one gallon of buttermilk to one-half pound of soot and boiling together for a period of twenty minutes, makes a satisfactory repellent when applied to the trunks of trees.

APPLE MARKET IS IMPROVED.

The conclusions reached earlier in the season that the market for late apples of this year's crop would be a decidedly different one than that for the summer apples are already being supported by the trend of the big markets where the trade is becoming firmer and showing a steady undertone with prices ruling higher. In the Chicago market receipts are running lighter and the demand holds steady with prices ranging from \$2.00 to \$4.00 for the more popular varieties. The Philadelphia market is firm, following an improved demand for fancy apples. Inferior grades are still burdening the market there but the influence will soon be lost since the supply will soon be exhausted by decomposition if not disposed of early. While the New York market is still receiving a considerable amount of windfalls and apples of lower grades, the depression which recently was felt in every part of the market is lessening and the trade is already showing a strong tone for the fancy grades. The freeze caught many apples unharvested and damaged them to an extent that will prevent their competition with others on the market this winter.

MICHIGAN LAND AND APPLE SHOW.

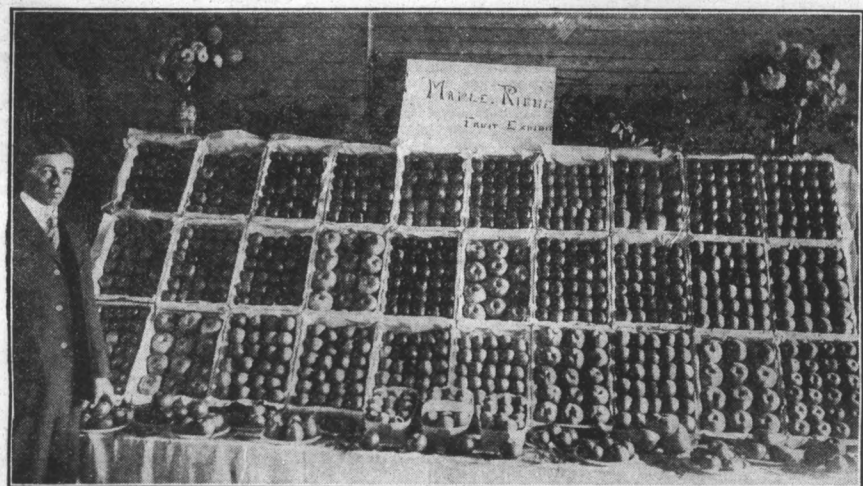
The first Michigan Land and Apple Show was held in the Coliseum at Grand Rapids, November 7-11, under the auspices of the Evening Press of that city and the Western Michigan Development Bureau. The attendance on opening day was 2,000 and there was a notable increase throughout the week. The great building was handsomely decorated in autumnal colors. Booths of bungalow type, built of white birch from the forest of Glen Haven, occupied the center of the main floor, with some individual displays of beautiful fruit, while the big displays of the Western Michigan Development Bureau and the Original Fruit Belt Association arranged in boxes flanking the main floor, quickly caught the eyes of visitors. Michigan seemed, indeed, to be the "home of the big red apple," since the great bulk of the fruit on display consisted of large, well colored fruit. Along the north wall was the solid bank of apples in boxes five tiers high, including the choicest specimens of some 80 varieties. Tier No. 2 consisted entirely of light colored apples, the arrangement as to color made a very pleasing effect.

The display made by the Original Fruit Belt Association, was equally fine as to quality of fruit and was very tastefully arranged. Variety was added to the display by the use of baskets of pears and grapes, while hanging at either end were immense bunches of grapes. Each box of fruit was plainly labeled as to variety. The individual displays were excellent. A single box of apples selected from the exhibit of the Western Michigan Bureau was sold to a Chicago commission merchant for \$25, which is at the rate of about 45 cents per apple.

One section of the main floor that attracted much attention was the educational exhibit made by the Michigan Agricultural college. The lectures given in the annex and the demonstrations in fruit packing were among the instructive features.

Kent Co.

A. GRIFFIN.



Fruit Exhibit of W. S. Palmer at Kalkaska County Fair. Illustrates Attractiveness of Showing Fruit in Boxes, Instead of on Plates.

this as we could, selecting a place where the ground sloped about two feet in the length of the barn. The wall was built two feet above the ground at the upper end, which left an incline of four or five feet into the cellar at the lower end. A cellar was dug under the entire building eight feet deep, and a grout wall built under all of it, using plenty of small stone in the grout. Such walls can be built quite cheaply here, as we can get the gravel from the cellar bottom, though in this case we had to go below the bottom to get enough gravel, and fill up with other soil. In addition to the four walls wings were made at each side of the driveway 16 feet long and this approach to the basement was sided up and roofed over, making us a covered entrance with doors at the bottom and the top. This part is 12 feet wide and the space above is floored over at the same incline as the entrance way and makes a handy place to store barrels or fruit. It also makes a double protection to the cellar against heat and cold. The cellar bottom is floored with from three to four inches of cement.

There are six windows 18 inches high, to the cellar, with double glass windows hung to swing up on inside, and matched wood shutters to swing up on outside. The latter are arranged to open at any angle so as to keep out the sun and rain and at the same time allow of ventilation.

We intended to grade up the ground at each end so as to give a driveway through the barn, but did not get it done before the packing season, and find that usually the barn is too full to drive through, and that it is convenient to have end door as well as side door at the height of the wagon bed so two wagons can stand there at one time and the fruit can be unloaded at one door, sorted and packed and stacked near the other door for re-loading if it is to be shipped at once, so I think we shall make only one grade entrance and leave two at the height of the wagon bed.

The floor to this part is wide plank with rather wide cracks, also, which lets con-

raise them, but the latter is hard work for one man to work at steadily. In filling the cellar we can fill by layers and tiers in such a way that the barrels need be lowered no farther than necessary and rolled to their position without lifting.

We are not planning on making the part above the cellar frost proof, intending to use this more for packing than for storage. We expect to put in more windows so plenty of light can be secured without the necessity of opening doors and creating drafts. We have removed one granary and the partitions but left a granary on one corner so that spray poisons can be kept away from children or animals.

As it now stands, the building will hold about 1,000 barrels in the attic and 1,000 in the basement, and the packing floor will accommodate perhaps 500 and allow of room for packing. While I have not computed the cost as yet I do not think it will exceed \$400 when completed. It will answer, I think, until our young orchards have reached a bearing age, when we may be able to have something better. Calhoun Co. S. B. HARTMAN.

DESTROY THE BORERS.

We have not usually found it necessary to give any attention to the peach tree borer. While we have known in past seasons that they were occasionally destroying a tree, we have allowed other work to prevent our interference, but this season in looking over our two-year-old peach orchard after having secured our apple crop we found that they were unusually numerous. Fortunately, (owing, in the judgment of the writer, to the unusually moist condition of the latter part of the season), they are somewhat higher on the trunks of the trees than usual, which materially facilitates their destruction.

While occasionally a tree is found to be practically destroyed, in most cases the injury is not serious, but plainly denotes imperative demand for prompt attention. Fully realizing the importance



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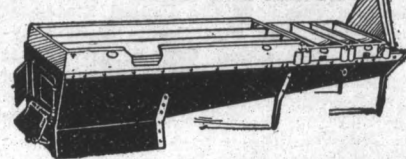
Many farmers have paid for their land out of the proceeds of the crop of 1911. At exhibitions throughout the U. S. wherever the grain from this Province has been shown it has received the highest commendation.

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Write as to best place for settlement, settlers' low railway rates, pamphlet "Last Best West," and other information, to Supt. of Immigration, Ottawa, Can., or to Can. Gov. Asst.

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Time to Plant will soon be here. We sell prices for the best stock. Apple and Cherry Trees 8c. Peach 4c and up. Send for Catalogue, its valuable to you. ERNST NURSERIES, Box 2, Moscow, O.

GRANGE

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

THE DECEMBER PROGRAMS.

State Lecturer's Suggestions for First Meeting.

Anniversary day program, commemorating the birth of the Order, December 4, 1867.

10:00 a. m. Call to order in Fourth Degree.

Election of officers.

Noon recess—dinner served to all members of Grange families.

1:30 p. m. Reports of retiring officers. Suggestions for good of the Order.

Grand march about the hall, led by assistant stewards.

Plays and games, in charge of lecturers and assistants.

A UNIQUE POMONA MEETING.

The fall session of Dickinson Pomona was unique in annals of Granges over the entire country from two viewpoints:

1. It was a Pomona "on wheels," who ever heard of such before? Opened at Sagola one day, it closed at Waucesha, forty miles away, the next. This was made possible by steam cars, autos and carriages, added to the enthusiastic energy of new Patrons of Husbandry who are earnestly bent on developing the agricultural resources and people of that portion of Michigan's wonderful "upper empire." The largest subordinate Grange of this county is at Vulcan, between the places at which this unusual meeting was held. It has in its membership the master of the county Grange and a majority of the fifth degree members. These



Arthur W. Thompson, Master of the Pomona Grange that Conducted a Meeting on Wheels.

determined and zealous young patrons (for so every one of them is at heart and in Grange experience), started in two autos and by train on the morning of the first day for the thirty-mile trip to Sagola. Next morning they reversed the process, arriving at Vulcan at noon; and here a delightful feature of their plan developed. The strictly "young people" of the crowd got off in the autos early enough to reach their home Grange hall in time to have a piping hot dinner ready when the others, traveling by rail and carriage, arrived. These sat down at their own Grange table, set with their own Grange dishes and choice foods from their own larders and gardens, to eat a dinner fit for a king and served by their own jolly young members. It was a fore-vision of what will some time oftener occur in our Grange homes—when the young and strong shall serve Grange dinners. Dinner over, the conveyances were once more brought into action and on we went. The party consisted of 23 persons. Pomona officers and members with paraphernalia for conferring degrees and conducting regular fourth degree work; a representative of the state library with a sample traveling library; the State Grange lecturer with printed matter and photos showing what other Granges are doing in program work. It was a regular demonstration troupe, touring the county for the first time in the interests of the Grange.

2. While the physical side of this event meant much in sacrifice of time and wages to most of these people, and of effort and expense to all, still the spirit which they put into the whole affair was its most noteworthy part. We

of old Pomonas talk about "mothering subordinate Granges;" but these people began to do it the second time they met, for Dickinson Pomona was organized only last July. They went first to the weakest Grange in the county, one that started out in good faith but halted by the way in a district where farming is just getting a foothold. Because of this and of a slight misunderstanding, no one met the Vulcan people at the hall; but they made themselves at home, arranging it and acting as Grange hosts of the occasion. They persisted in cultivating the acquaintance of the local members who came; they even persuaded some to go back and get their young people. They showed these unused patrons how to open and conduct a Grange meeting, explaining and drilling them in the common forms, initiating a class for them and helping them get in shape for future work. This was followed by an impromptu program, closing with a social half hour, followed by cordial "good nights" and hearty "come agains." Next day the work was of quite a different character, but fitted the needs just as closely. At Waucesha the subordinate Grange has built a new hall. Members had decorated it in honor of Pomona, were on hand to receive their guests, served a hot supper and co-operated at every point to make the occasion successful.

In both Sagola and Waucesha the spirit and purpose of the people are good; but who can guess how much of strengthening it will mean to both that just now the Vulcan patrons grasped their hands in such an encouraging way in the name of the Pomona Grange?

JENNIE BUELL.

AMONG THE LIVE GRANGES.

Rome Grange, of Lenawee county, had 60 members present at its last meeting. Ten applications for membership were balloted on and elected, while six candidates were given the first and second degrees. An invitation to visit Cadmus Grange and furnish program was received and accepted. The topics on the program related to insurance—Grange fire insurance and Grange life insurance—both of which were discussed.

A Corn and Cake Contest.—Howard Grange held a corn show at Dowagiac, Wednesday evening, Nov. 15, with an attendance of about 60 members and guests. Prof. Jeffery, of M. A. C., judged the exhibits and gave a talk on corn growing which pleased the growers present very much. The ladies held a cake contest and after the prizes had been awarded a fine supper was served. This Grange has been particularly active in planning meetings which shall be of general interest, rather than for the benefit of members alone, and as a result is growing very rapidly.

South Boston Grange, of Ionia county, is conducting a contest that is somewhat out of the ordinary. It is a three-cornered affair, to comprise three programs, one to be rendered by the married members, one by the girls and one by the boys. The winners are to be banqueted by the two losers, and the interest which has been aroused bids fair to give this Grange a fine start in its winter's work.

Tecumseh Annual Banquet.—The second annual banquet of Tecumseh Grange, No. 166, held recently at the Grange hall, was attended by more than 100 members. After all had partaken of the bountiful meal that was served by the committee, Mrs. Daniel T. Hall, who had been designated toastmistress, opened the program with a few happy remarks and as it progressed introduced each participant in suitable words interspersed with good stories. One of the best responses was made by A. W. Mills, the toast being "The Farmer's Wife," in the course of which he gave an interesting account of the early days of his father and mother and their family of seven children in the township of Franklin. He said there was a difference between "a farmer's wife" and "the wife of a farmer."

Gratiot Pomona held its last meeting of the year with Summer Grange on Nov. 9. The disappointment of the meeting was the inability of the state speaker—Former Master Horton—to be present. Reports from a majority of the subordinates were rendered and the program well carried out. Three members were given the fifth degree and officers for the coming two years were elected as follows: Master, Luther Carter; overseer, Peter Klees; lecturer, Lena Vandeventer; chaplain, Mrs. Hutchins; steward, M. C. Lake; secretary, Eva C. Palmer; treasurer, R. C. Lake; assistant steward, Arthur Howland; Pomona, Mrs. Lewis Merwin; Ceres, Minnie Witheral; Flora, Mrs. Hunt; gate keeper, George McDade; lady assistant steward, Daphne McDade. Delegates to State Grange, to meet at Kalamazoo the second week in December, are Archie E. Miller, of Newark and Daphne McDade, of Liberty Grange.

COMING EVENTS.

Michigan State Grange, Thirty-ninth annual session, at Kalamazoo, Dec. 11-15.

Pomona Meetings.

Genesee Co., with Vienna Grange, at Clio, Tuesday, Nov. 28. State Master Hull, speaker.

Kent Co., in Court House, Grand Rapids, Wednesday, Dec. 6, at 1:00 p. m. Fifth degree session and election of officers.

FARMERS' CLUBS

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

Associational Motto.—

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

Associational Sentiment.—

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

REPORT TO THE ASSOCIATIONAL SECRETARY.

As noted in the last issue, the secretaries of all local Clubs were sent programs of the coming annual meeting, credential blanks and report blanks, the latter to be filled out and returned to the associational secretary at once as it is necessary for her to have the most complete record possible from the local Clubs before formulating her report which will be presented at the State Association. Owing to the recent death of her mother, Mrs. E. Bates Snook, of Lapeer county, the Associational Secretary, Mrs. C. P. Johnson, of Metamora, has been unable to solicit these reports from delinquent secretaries by correspondence, and Club secretaries who have not yet reported will be conferring a favor on her by doing so promptly.—Ed.

DELEGATES TO THE ANNUAL MEETING.

If delegates have not already been elected to represent the local Club, of which the reader may be a member, at the 19th annual meeting of the State Association of Farmers' Clubs, which will be held in the Senate Chamber at Lansing, on Tuesday and Wednesday, Dec. 5 and 6, steps should be taken at once to insure that the Club is represented there. If delegates have not been regularly elected or appointed, urge the president of the Club to act as one of the delegates or have him appoint some member or members to act in that capacity.

It is a great mistake for any Farmers' Club to let this occasion pass without being represented by one or more delegates. The benefits to be derived are so obvious that little comment regarding them seems necessary at this time. Few Clubs which have affiliated themselves with the State Association have ever withdrawn, but a few have persistently or carelessly neglected their opportunities in this respect and these should this year take steps to become identified with the central organization.

The delegates who are thus appointed, or who have been regularly elected at a Club meeting to represent the local organization at the state meeting, should be prepared to give a brief outline of the manner in which their Club is conducted at the section of the state meeting devoted to a Conference of Local Club Workers. This feature of the state meeting is one of the most profitable to the home Club, in that the delegates get many valuable ideas regarding the conduct of local organizations from the brief reports given by other delegates at the meeting. The ideas gathered in these reports may be made a valuable feature of the report of the delegate to his home Club. Delegates should also be prepared to present any matters to the state meeting as requested by the Clubs which they represent in a brief and concise manner. All such propositions should be placed in writing in order that they may be promptly submitted to the proper committee at the state meeting for consideration.

WIXOM CLUB AND GRANGE FAIR.

The Wixom Grange and Farmers' Club held their third annual fair at the K. O. T. M. Hall at Wixom, on Saturday, Oct. 28. It was a complete success from start to finish. All roads led to Wixom that day and the hall was crowded to its utmost capacity, with a jovial, good natured crowd.

The outdoor exhibits were products of the farm. The big pumpkin was there and the big squash, some fine specimens of the different varieties of corn, sugar beets, carrots, cabbage, turnips, etc., also a fine specimen of Swiss chard. The fruit exhibit was not large, but of excellent quality. The outdoor exhibits were very creditable and reflected great credit upon the farmers of Wixom and vicinity. The indoor exhibits were quite numerous and very fine. The exhibits of work done by the school children were especially fine, one of them having received over \$50 in premiums at the state fair. Some very excellent exhibits in baked goods

were shown in the children's department, also in fancy needle work. In the ladies' department many fine quilts, rugs and entries of fine sewing were on exhibit, also beautiful embroidery, drawn work, knitting and crocheting. Among the relics was a dresser cover made from a piece of a linen sheet woven by the great, great grandmother of the lady exhibiting it, over 200 years ago.

At our fair of 1910, the carding and spinning of a pound of wool was demonstrated by a lady 78 years old. This year she exhibited the same pound of wool knitted into three pairs of mittens, and received first prize.

The canned and baked goods rivaled those at the state fair. Jellies, apple butter and many other good things were also on exhibition. Much more might be said in regard to the exhibits did space permit. A fine dinner, prepared and served under the supervision of a very competent and experienced "chef," was partaken of by about 225 jolly, hungry, good-natured people, who were waited upon by a very efficient and handsome corps of waiters, and workers.

A very interesting and instructive program was rendered in the afternoon, consisting of vocal and instrumental music, select readings and recitations, short cuts in the house and on the farm. Also a very excellent talk by L. D. Lovewell, of South Lyon. There were about 230 exhibits, and \$50 awarded for premiums. Ice cream and pop corn were also sold, from the sale of which and the dinner a nice sum of money was realized.—Mrs. R. D. Stephens, Cor. Sec. of Wixom Farmers' Club.

CLUB DISCUSSIONS.

Washington Center Farmers' Club met at Cottonwood, the home of Mr. and Mrs. W. C. Long, on Thursday, November 9, at 10:00 a. m. The meeting was called to order by the president, followed with singing by the Club. The minutes were read and approved. The secretary read some communications from Walter A. French and J. L. Snyder on college extension work and short courses. The secretary also read some resolutions. The Washington Center Farmers' Club endorsed, by a unanimous vote, the resolutions concerning the calling of special sessions of congress and the legislature. The question, "Which is the best way to keep sugar beet tops until used up?" was led by F. E. Cammet, who said to put in a silo if one has a large acreage and if a small acreage leave in small piles. The president said another way to keep them was not to move them any more than necessary until used up. The meeting was adjourned one hour for dinner, which was enjoyed by all. The afternoon session was opened with singing by the Club. Roll call was responded to by statements of some things we can get along without. There were various answers in response, which caused much laughter. Mr. and Mrs. W. C. Long were elected delegates to the state convention. Question: "Is the law as to paying tuition of rural scholars at a high school a just law?" was led by Frank Cook, who said he sees no injustice in this clause, except where it is provided that a guardian can not pay the assessment in the district where the children under his management attend school, instead of paying it in the district where the guardian resides. The question was further discussed by Curren, Campbell, Long, French and others. This question brought out a very lively discussion. Mrs. C. B. Doan gave a humorous reading, entitled, "Josh Billings' Hen." The ladies quartette rendered a selection, "Down by the Old Mill Stream," with Mrs. George Long as accompanist. They responded to an encore. The president appointed a committee to make out a program for the coming year. The question box contained some very good questions, which brought out interesting discussions. This concluded the program. There was a good attendance in spite of the fierce condition of the roads and everyone had a jolly time. The next meeting will be held at Stony Brook, the home of Mr. and Mrs. Sterrah Walker, on Tuesday, December 14. This is the last meeting of the year and everyone is requested to attend. Meeting closed with singing.—Mrs. J. F. Keiser, Cor. Sec.

Discuss Poultry Profits.—The Salem Farmers' Club was pleasantly entertained for its October meeting at the home of Mr. and Mrs. Robert Ross. After a bountiful dinner and a pleasant social hour the program was taken up. An interesting paper was read on "Poultry Raising for Profit," by Mr. Van Vorce. He raises the Rhode Island Reds and thinks nothing else will do. He hatches with an incubator and has fine success in raising the young chicks. He keeps all his pullets for winter layers and expects a good return for his trouble. He thinks they are better able to resist the cold than others. Said the other day he heard his best rooster, (Robinson), saying to the flock, "We have got to hustle." Said he named him Robinson because he crewso. Mr. V. is a poultry enthusiast. Chas. Ross spoke in favor of the Leghorns. They are fine layers and will do for him. Robert Ross said his flock was mongrels, all colors and kinds, but they lay just as well as any. In the last seven months they had laid 588 dozen eggs. He has 60 or 70 hens.

Alfalfa.—Mr. Herbert Smith read a paper in favor of raising alfalfa for cows. Thinks it produces abundantly per acre as it gives three cuttings during the season, and is of superior feeding value. Notices that his cows fall off in milk when the alfalfa is gone. A Club history was read by H. C. Thompson. A recitation by Daniel Smith entitled, "Our Country's Starry Flag," was much enjoyed, as was also a recitation by Mrs. I. W. Hamilton entitled, "A Little Hero." A committee was appointed to wait on the road commissioner in the interest of better roads.—H. C. T., Cor. Sec.

MARKETS

DETROIT WHOLESALE MARKETS.

November 21, 1911.

Grains and Seeds.

Wheat.—Price making has favored the bulls in the wheat market the past week. Conditions in the Canadian Northwest have urged better prices since the damage to the crop is now known to be large and there was a decrease in the Canadian visible supply of over half a million bushels. The chief bullish feature of the trade, however, was the reports from Argentina where the crop had been described as the best that country has ever grown; but during the past week severe storms have damaged the fields to a considerable degree so that the market cannot count on so large a surplus from there as it expected to. This bullish feature, together with the high prices in Australia, the famine in Russia, the small volume of the world's exports and the situation in the Canadian Northwest gave the wheat trade a firm tone at advanced prices in all the principal markets of the world. One year ago the price for No. 2 red wheat was 94¢ per bu. Quotations for the past week are as follows:

	No. 2 Red.	No. 1 White.	Dec.	May.
Thursday	96½	93½	.98	\$1.02½
Friday	96¾	93¾	.98½	1.02¾
Saturday	97¼	94¼	.98½	1.03
Monday	97¾	94¾	.98½	1.03½
Tuesday	97¾	94¾	.98½	1.03

Corn.—There was a decrease in the visible supply of corn the past week which, with a steady demand and an improved outlook in the feeding business, put prices for the week above those prevailing the previous period. Wheat, also, had an influence on the market. The bullish features, however, were overcome in part by the prospects of larger receipts of new corn to appear upon the market soon. New corn is quoted on the local market at 67½¢ for No. 3 yellow. One year ago the price for No. 3 corn was 53½¢ per bu. Following are the prices for the past week:

	No. 3 Corn.	No. 3 Yellow.
Thursday	75½	76
Friday	75½	76
Saturday	75½	76
Monday	75½	76½
Tuesday	75½	76

Oats.—Quotations for this grain have advanced with those of corn and wheat. There was a fair amount of trade on the Chicago market while local dealing was quiet. The cereal is not likely to fluctuate far from the present basis. One year ago the price for standard oats was 34½¢ per bu. The visible supply shows a decrease of nearly three-quarters of a million bushels. Following are the quotations for the past week:

	Standard.	No. 3 White.
Thursday	50	49½
Friday	51	50½
Saturday	51	50½
Monday	51	50½
Tuesday	51	50½

Beans.—The closing prices of last week are still ruling. The trade has a firm undertone with few transactions. Quotations are as follows:

	Oct.	Dec.
Thursday	\$2.28	\$2.30
Friday	2.28	2.30
Saturday	2.28	2.30
Monday	2.28	2.30
Tuesday	2.28	2.30

Clover Seed.—The clover seed deal is active and firm. Prices advanced 15¢ on Monday. Alsike remains steady at former prices. Quotations are as follows:

	Prime Spot.	March.	Alsike.
Thursday	12.35	12.45	10.50
Friday	12.35	12.45	10.50
Saturday	12.35	12.45	10.50
Monday	12.50	12.60	10.50
Tuesday	12.50	12.60	10.50

Rye.—There is an advance of 1¢ in the quotations for cash No. 2 rye which now is selling at 94¢ per bu.

Timothy Seed.—This market is lifeless with the price unchanged at \$7.20 per bu.

Flour, Feed, Potatoes, Etc.

Flour.—There is an active demand for flour, with prices unchanged.

	Straight	Patent Michigan	Ordinary Patent
Thursday	4.10	4.75	4.40
Friday	4.10	4.75	4.40
Saturday	4.10	4.75	4.40
Monday	4.10	4.75	4.40
Tuesday	4.10	4.75	4.40

Feed.—All grades steady with last week. Carlot prices on track are: Bran, \$27 per ton; coarse middlings, \$29; fine middlings, \$32; cracked corn, \$30; coarse corn meal, \$30; corn and oat chop, \$28 per ton.

Hay and Straw.—Both hay and straw steady with last week, with supplies light. Quotations are: No. 1 timothy, \$20@21; No. 2 timothy, \$19@20; clover, mixed, \$18@20; rye straw, \$9.50@10; wheat and oat straw, \$9 per ton.

Potatoes.—The arrivals of potatoes are not heavy, which, with the good demand, places the market on a firm basis at quotations ruling above those of a week ago. The sudden cold weather caught many fields undug and such potatoes, in most instances, will be a total loss. Car lots on track are quoted at 85¢@90¢ per bushel in bulk.

Provisions.—Family pork, \$19@19.50; mess pork, \$17; medium clear, \$17@18.50; hams, 14½¢; bacon, 12@14½¢; pure lard in tierces, 9½¢; kettle rendered lard, 10½¢ per lb.

Dairy and Poultry Products.

Butter.—This has been another bullish week in the butter deal, restricted offerings and storage supplies accompanied by a strong demand have permitted an advance for creamery goods. Quotations are: Extra creamery, 33¢; firsts, do., 32¢; dairy, 21¢; packing stock, 20¢ per lb.

Eggs.—A further advance resulted from the continued broad demand and the constantly narrowing supply of eggs with

every prospect that further upward changes in prices will follow. Fresh receipts, case count, cases included, are now quoted at 28¢ per dozen.

Poultry.—Turkeys, geese and young ducks are higher than last week while chickens rule steady and easy, with hens slightly lower. Prices are: Live—Turkeys, 16@17¢; geese, 11@12¢; ducks, 12@13¢; young ducks, 15¢; spring chickens, 9@10¢; No. 2 chickens, 8¢ per lb; hens, 8½@9¢.

Cheese.—Michigan old, 15½@17¢; Michigan, late, 15½@17¢; York state, new, 16@17¢; Swiss, domestic block, 17@20¢; cream brick, 15@16¢; limburger, 14@15¢.

Veal.—Market steady. Fancy, 10@11¢; choice, 8@9¢ per lb.

Fruits and Vegetables.

Cabbage.—Steady. Selling at \$1.50@1.75 per bbl. for home-grown.

Onions.—Steady; 80@90¢ per bu.

Pears.—75¢@1 per bu. for Duchess.

Apples.—There is no change in the apple deal and prices rule steady. Average offerings are going at 50¢@1 per bushel; Snows are selling at \$3.50@4 per barrel.

Elgin.

Butter.—Market firm at 33¢ per lb., which is an advance of 1¢ over last week's quotation. Output for the week, 648,400 lbs., as compared with 659,300 lbs. for the previous week.

OTHER MARKETS.

New York.

Butter.—Best grades advanced, others about steady. Creamery specials are quoted at 35@35½¢ per lb; extras, 34@34½¢; firsts, 31@33¢; seconds, 28@30¢; thirds, 26@27¢ per lb.

Eggs.—Another increase in quotations following the advance of a week ago. Fresh gathered extras, 35@40¢; extra, firsts, 35@37¢; seconds, 28@30¢; western gathered whites, 33@43¢ per dozen.

Poultry.—Live. About steady with last week. Western chickens, 10½@11½¢; fowls, 10@11¢; turkeys, 14@16¢. Dressed

—Turkeys lower. Turkeys, 10@19¢; fowls 6@16½¢; western chickens, 6@16¢ per lb.

Chicago.

Wheat.—No. 2 red, 98@99¢; Dec., 96½¢; May, \$1.01 per bu.

Corn.—No. 2, 76¢; Dec., 63½¢; May, 65¢ per bu.

Oats.—No. 2 white, 49½@50¢; Dec., 47½¢; May, 50¢.

Barley.—Malting grades, \$1.17@1.25 per bu; feeding, 75@95¢.

Butter.—The market here is responding to the strong situation prevailing in butter circles and prices continue to look upward. Creameries, 24½@32¢; dairies, 22@28¢ per lb.

Eggs.—Small receipts continue the uninterrupted advance in egg prices and gives the trade a firm tone. Values have gone up from 1 to 4¢. Quotations are: Prime firsts, 27@29¢; firsts, 24@26¢; at mark, cases included, 21@25¢ per dozen.

Potatoes.—The improvement in potato prices amounted to 10¢ and more the past week, with the trade firm at the higher figures. Offerings are smaller. Demand good. Michigan stock is now quoted at 92@95¢ per bu; Wisconsin, 85@90¢; Minnesota, 92@95¢.

Beans.—All kinds and grades of beans enjoyed an advance ranging from an increase of 10¢ for red kidneys to 14¢ for pea beans. Choice hand-picked pea beans quoted at \$2.47 per bu; prime, \$2.40; red kidneys, \$3.50 per bu.

Hay and Straw.—All grades of hay and straw are steady with last week except choice timothy which is down 50¢; wheat straw advanced the same amount. Quotations: Choice timothy, \$22.50@23.50 per ton; do., No. 1 \$21@22; do., No. 2 and No. 1 mixed, \$19.50@20; do., No. 3 and No. 2 mixed, \$14.50@18.50; clover, \$15@17; do., No. 2 and no grade, \$8@13; rye straw, \$9.50@10.50; oat straw, \$9@9.50 per ton; wheat straw, \$7.50@8.50 per ton.

Boston.

Wool.—There was not a heavy volume of business in any line last week, the largest part of attention, however, was given to the lower grades of fleece wools and in clothing territory wools. On these particular kinds prices are exceptionally firm and much stronger than grades which are not at this time in such good demand. Shipments of wool from Boston from Jan. 1 to Nov. 16, inclusive, amounted to 188,044,599 lbs., as compared with 193,402,986 lbs. for the corresponding period of 1910. The receipts for the above period this year were 275,417,651 lbs., as compared with 249,613,456 lbs. in 1910.

THE LIVE STOCK MARKETS.

Buffalo.

November 20, 1911.

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

Receipts of stock here today as follows: Cattle, 240 cars; hogs, 160 double decks; sheep and lambs, 130 double decks; calves 1,200 head.

With 25,000 cattle reported in Chicago today and 240 cars on our market here, a few of the best cattle here, possibly a half dozen loads, sold steady with last Monday's prices; all other cattle of all grades sold from 10@15¢ per cwt. lower, and in some instances 25¢ per cwt. lower, except the trimmers, which sold strong at last week's prices. No demand for late springers.

We quote: Best 1,400 to 1,600-lb. steers \$7.75@8; good prime 1,300 to 1,400-lb. do., \$7.25@7.75; do. 1,200 to 1,300-lb. do., \$6.50@6.75; best 1,100 to 1,200-lb. shipping steers, \$5.50@6; medium butcher steers, \$4.25@4.75; best fat cows, \$4.25@4.75; fair to good do., \$3.25@3.50; common to medium do., \$2.25@2.75; trimmers \$2@2.50; best fat heifers, \$5@5.50; good do., \$4.25@4.85; fair to good do., \$3.50@4.10; stock heifers, \$2.75@3; best feeding steers, dehorned, \$4@4.50; common do.,

\$3@3.50; stockers, all grades, \$2.75@3.50; prime export bulls, \$5@5.25; best butcher bulls, \$4.25@4.65; Bologna bulls, \$3.25@4; stock bulls, \$3@3.75; best milkers and springers, 50@60; common to good do., \$25@35.

Today's supply of hogs exceeded the demand, which gave buyers the advantage, and they succeeded in forcing a decline. The bulk of the choice quality mixed and medium grades selling at \$6.35@6.40, the latter price for those running to the heavier weights; a few decks of heavy hogs, strictly choice quality, sold up around \$6.50, and the good quality best weight yorkers sold from \$6.30@6.35. Light yorkers around \$6@6.15; pigs from \$5.75@5.90; rough sows from \$5.70@5.75. Good many late arrivals going over unsold.

The sheep and lamb market was very slow today; only a few of the choice lambs selling at \$5.25. Will be about 35 loads holding over unsold. Prospects look bad for the balance of this week, as the most of the dealers are pretty well filled up. Most of the best ewes selling at 3¢; wethers at \$3.25@3.50.

We quote: Best lambs, \$5.15@5.25; cull to common do., \$4@4.30; wethers, \$3.25@3.50; bucks, 2.25@2.50; yearlings, \$3.50@4; handy ewes, \$3@3.15; heavy do. \$2.85@3; cull sheep, \$1.50@2; veals, choice to extra, \$9@9.25; fair to good do., \$7.50@8.75; heavy calves, \$3.50@5.

Chicago.

November 20, 1911.

Cattle. Hogs. Sheep.
Received today 23,000 50,000 42,000
Same day last year.. 22,213 31,979 38,173
Received last week.. 84,310 158,439 159,989
Same week last year. 70,576 140,660 168,923

Moderate Monday cattle receipts today failed to accomplish any general advance, although part of the offerings sold higher, with fat butcher stock the most active, according to different accounts, these going largely 10¢ higher. Only about 1,500 western range cattle arrived. A big bunch of fancy beefs of heavy weight was held for \$9.35 by the owner, but at a late hour was not sold.

Hogs averaged a dime lower today under the load of the largest run seen in a long period. Sales ranged at \$5.70@6.60, an early sale being made at the top figure. Hogs received last week averaged 210 lbs., compared with 203 lbs. a week earlier and 233 lbs. a year ago.

Sheep were nearly steady today, the best wethers going only 5¢ lower. Lambs, which comprised a large part of the offerings, were 10@15¢ lower, the top being \$5.60. The proportion of range flocks was greatly lowered.

Cattle supplies last week reached extremely large numbers, running far ahead of the preceding week, and prices after Monday's 10@15¢ advance caused by moderate offerings for that day experienced sharp breaks, even the best long-fed beefs selling moderately lower. The larger supplies were due in great part to the determination of many stockmen in farming regions to market their cattle from grass rather than winter them on high-priced feed. Beef steers sold largely at \$5.50@8.25, the poorer grassers selling at \$4.50@5.75, good steers at \$7 and upward, the choicer beefs at \$8@9.15. A desirable class of yearling steers brought \$7@8.60, and there was a fair trade in butchering lots of cows and heifers at \$3.15@6, a few prime heifers selling up to \$7, while canners sold at \$1.75@2.55 and cutters at \$2.60@3.10. Bulls brought \$2.75@5.50, and calves had a fair sale at \$2.50@8.50 per 100 lbs., while milkers and springers sold moderately at \$30@60 per head, being in numerous cases 10¢ lower than a month ago. Western range steers sold at \$4.50@7.50, and stockers and feeders were fairly active, being largely 25¢ lower, the choicest lots expected. Stockers went at \$3@5.10 and feeders at \$4.25@5.90, but not many stockers sold above \$4.75, while the bulk of the feeders sold at \$4.75@5.50. It is highly probable that a good many grass fed cattle will be sent in during the next few weeks, and this will tend to hold prices down for such stock, but later on the general market is expected to rule better for sellers. Of course, it is not to be expected that cattle can advance indefinitely, however, and the dearthness of beef is bound to curtail its consumption, causing other cheaper meats to be substituted. At the week's close beef cattle sold largely 25¢@50¢ lower than a week earlier, and good lots declined most. Thanksgiving week will check the demand for beef, and cattle shippers should not forget this.

Hogs are all needed, especially the choicer lots, and the undertone of the market has usually been firm, declines in prices being quickly recovered. The limited percentage of strong-weight hogs makes these extremely popular with buyers, and prime consignments averaging from 240 to 310 lbs. have been among the highest sellers, with light bacon hogs selling at quite a discount. As the season advances it becomes clearer than ever that there is a shortage of matured hogs, and the enormous marketing of little pigs from cholera infected districts of Illinois and other states cannot fail to make serious inroads in the future supply of matured swine. The big demand for fresh pig pork is enabling the packers to sell the production of the pigs at great profits, and there is also a demand for accumulated supplies here and elsewhere. When November opened the aggregate stocks of cured hog meats at the five leading western markets amounted to 147,659,000 lbs., a reduction of 20,237,000 lbs. from the stocks held a month earlier, while stocks of contract lard amounted to 59,229 tierces, compared with 81,282 tierces a month ago. At the close of the week hogs sold at \$5.80@6.65, compared with \$5.60@6.60 a week earlier, showing a much better market for the cheaper lots. Pigs brought \$4.90@6, and roasters sold at \$6.25@7. Stags brought \$6.60@6.80. The best light hogs sold at \$6.55.

Sheep and lambs have undergone extraordinarily wild fluctuations in prices recently, last week starting off with advances of 25¢@50¢ in fat lambs that carried the best native lambs on Monday up to \$6.25. Sheep and yearlings also had good advances the same time on much reduced receipts, while later in the week sharp breaks in prices were brought about by larger offerings and a less eager general demand. The receipts of both sheep and lambs have been averaging only moderately well in quality, and this applies especially to the range offerings, as is usually the case at the close of the season for these flocks. The outside demand has undergone a marked falling off, and this enabled local packers to make better bargains frequently. Feeders have shown the most firmness, as these continued in good demand, while the offerings fell off a great deal. It is likely that a good many flocks will be marketed on the appearance of severe weather, and this will tend to make low prices, but subsequently the market promises to rule high, as much less feeding is being done than a year ago. At the week's close lambs were 50@75¢ lower and sheep 25¢ lower than on Monday, lambs bringing \$3.10@5.75; ewes, \$1.50@3.25; wethers, \$3.50@3.90; bucks, \$2.25@2.75, and yearlings \$4.25@4.65. Breeding ewes brought \$3.25@4.25, and feeders paid \$4.50@5.10 for lambs.

Horses have been offered too freely for the wants of the trade, and dealers report sales of the less attractive animals as much as \$25 to \$30 per head lower than during the best period of the year. Light to medium weight drafters have been selling at \$175@225, with a choicer grade of heavier ones at \$230@275 and prime extra heavy drafters quotable at \$280@325, few of the best being offered. Wagon horses go mostly at \$160@200, and inferior to fair horses bring \$65@150.

LIVE STOCK NOTES.

The Wisconsin Experiment Station recently bought at Chicago a bunch of 15 head of choice Hereford, Angus and Shorthorn feeder steers that averaged around 1,000 lbs. for \$5.75 per 100 lbs., and several other car loads of choice strong-weight feeders, including two carloads of 1,140-lb. steers, which sold the same day at the same price.

A prominent commission firm located at the Chicago stock yards that handles sheep exclusively, says: We are getting a good many inquiries from feeders of western range sheep and lambs who have been running them on grass. From the tone of their letters, we take it for granted they are inclined to market their holdings at an early time. This is the danger point of this year's feeding: If people who are holding sheep and lamb do not get panicky and crowd the market with half-fat stock, the outcome will be all right, but if they all try to market their stock between now and the new year, the market will be low and mean, and after that there will be a shortage and higher prices. We believe this is a year when feeders can afford to make their flocks good before marketing. While feed is high, considering the reduced number on feed, we should have a good trade.

A marked change has taken place in the character of the Chicago sheep and lamb market recently, and with the season for hipping in western range flocks nearing its close, the aggregate offerings have fallen off materially in volume most of the time. The offerings of feeder stock have fallen off greatly, and while there has been a good demand for feeding wethers around \$3.50 per 100 lbs., most of the sheep offered were too heavy for feeding purposes. It is safe to say that around 75 per cent of the sheep and lambs received were killers and went for slaughter, being largely native lambs of fairly good to superior quality. Numerous old, thin ewes, principally from Montana ranges, have been received and went at extremely low prices, often going at \$2 per 100 lbs. or even less. Now and then they have good teeth and are good enough for breeding purposes for a year or two, when they sell up to \$3.

Farmers and stockmen of many years' experience in fattening live stock for the market regard this as an ideal winter to go into fattening cattle. An Illinois cattle feeder of 35 years' experience in that line remarked the other day that during that long period he never made more money than when corn was high-priced, finding that dear feed usually thinned the ranks of the feeders to such an extent as to cut down supplies of fat beefs much under trade requirements.

J. T. Hamilton, a resident of Montana for 19 years, says in an interview published by the Live Stock Report of Chicago: "In Montana hundreds of small ranchmen, who range from 100 to 500 cattle, have been forced to close out this season because of grass shortage, and those who handled cattle on a larger scale have been gradually closing out their interests during the past several years. The cattle shortage, as far as the northwest and southwest ranchmen is concerned, will be felt more next year than any time in the history of the cattle industry. Many of the small ranchmen in Montana expect to stock up again next spring. Where the cattle are to come from I do not know. It would not surprise me if good-sized mixed lots of yearling to four-year-old stock cattle cost \$40 to \$45 in Montana next spring, against \$35 to \$40 last spring and \$32 to \$35 the previous five years. Of course, in time the small stockman and the farmer and better cattle than ever before, but in the meantime unless the corn belt farmer raises his own cattle, he will be up against a serious shortage of young cattle and have to pay new high prices for the same if he stays in the cattle feeding business."

THIS IS THE LAST EDITION.

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

DETROIT LIVE STOCK MARKETS.

Thursday's Market.

November 23, 1911.

Cattle.

Receipts, 1,215. Market active at last week's prices; quality very common; good grades would sell higher but none are here.

We quote: Best steers and heifers, \$5.50@6; steers and heifers, 1,000 to 1,200, \$4.50@5.25; do. 800 to 1,000, \$4.50@5; steers and heifers that are fat, 500 to 700, \$3.50@4; choice fat cows, \$4.50; good fat cows, \$3.25@4; common cows, \$2.75@3; canners, \$1.50@2.50; choice heavy bulls, \$4; fair to good bolognas, bulls, \$3.50@3.75; stock bulls, \$2.50@3; choice feeding steers, 800 to 1,000, \$4.50@5; fair do., 800 to 1,000, \$4@4.50; choice stockers, 500 to 700, \$3.50@4; fair stockers, 500 to 700, \$3@3.25; stock heifers, \$2.50@3.50; milkers, large, young, medium age, \$4@5.50; common milkers, \$2@3.

Roe Com. Co. sold Smith 2 feeders av 790 at \$3.75, 3 stockers av 626 at \$3.50; to Sullivan P. Co. 12 cows av 1,066 at \$3.25; to Parker, W. & Co. 2 bulls av 870 at \$3.50, 5 cows av 746 at \$2.50; to Rattkowsky 6 butchers av 890 at \$3.75, 2 heifers av 540 at \$3; to Fromm 8 butchers av 685 at \$3; to Hirschleman 5 butchers av 572 at \$3.35, 2 cows av 835 at \$3; to Newton B. Co. 2 butchers av 865 at \$3.50, 22 do av 950 at \$4.50; to Sullivan P. Co. 1 bull weighing 1,210 at \$4, 1 cow weighing 800 at \$2.50, 4 do av 1,067 at \$2.75, 2 do av 1,245 at \$4; to Newton B. Co. 12 butchers av 730 at \$4.50; to Higsby 4 stockers av 565 at \$4.50; to Fromm 6 do av 648 at \$3.60, 1 do weighing 590 at \$3.60.

Bishop, B. & H. sold Smith 5 stockers av 600 at \$3.60; to Regan 8 heifers av 525 at \$2.50; to Bresnahan 2 canners av 910 at \$2.50, 9 do av 822 at \$2.50, 11 do av 925 at \$2.55, 1 do weighing 850 at \$2; to Parker, W. & Co. 1 bull weighing 1,260 at \$4, 6 steers av 836 at \$4.50, 18 do av 938 at \$4.50, 1 do weighing 760 at \$4, 3 cows av 1,043 at \$3.25, 3 do av 1,040 at \$3.50, 8 do av 952 at \$3; to Hammond, S. & Co. 1 bull weighing 1,190 at \$3.85, 2 do av 700 at \$2.75, 1 cow weighing 1,230 at \$2.80, 6 do av 826 at \$2.80; to Breitenbeck 2 cows av 1,060 at \$3.50; to Thompson Bros. 9 butchers av 790 at \$4.35, 1 bull weighing 650 at \$3, 3 heifers av 750 at \$4; to Sullivan P. Co. 1 cow weighing 1,320 at \$4.35, 2 steers av 975 at \$5.50; to Goose 7 butchers av 883 at \$3.10; to Bresnahan 7 canners av 868 at \$2.50, 7 do av 843 at \$2.50; to Sullivan P. Co. 2 cows av 1,070 at \$2.85, 1 bull weighing 1,206 at \$3.75, 3 cows av 880 at \$2.50, 3 do av 1,017 at \$2.75, 5 butchers av 828 at \$3.50; to Schumaker 4 feeders av 712 at \$3.75; to Goose 5 cows and bulls av 944 at \$3.25; to Bresnahan 6 canners av 883 at \$2.50; to Mich. B. Co. 15 butchers av 960 at \$3.40.

Haley & M. sold Bresnahan 4 canners av 917 at \$2.50, 7 do av 864 at \$2.50, 7 do av 763 at \$2.55, 3 do av 880 at \$2.50; to Newton B. Co. 2 bulls av 800 at \$3; to Breitenbeck 4 cows av 1,022 at \$3; to Lachalt 6 butchers av 890 at \$4; to Goose 7 do av 420 at \$2.85, 12 cows av 1,071 at \$3.25; to Pratoski 8 butchers av 547 at \$3, 1 cow weighing 870 at \$2.60; to Hirschleman 13 butchers av 614 at \$3.60; to Hammond, S. & Co. 16 do av 582 at \$3.35; to Pratosky 4 do av 617 at \$3, 2 do av 700 at \$3.50; to Goose 7 do av 400 at \$2.80; to Rattkowsky 2 cows av 1,150 at \$3.75; to Mich. B. Co. 1 bull weighing 880 at \$3.85, 6 heifers av 690 at \$4; to Regan 13 do av 583 at \$3.25.

Spicer & R. sold Bresnahan 2 canners av 825 at \$2.50, 13 butchers av 574 at \$3.10; to Laboe 18 do av 783 at \$4; to Thompson Bros. 1 cow weighing 920 at \$3, 8 do av 794 at \$4, 5 do av 752 at \$3.75; to Sullivan P. Co. 1 steer weighing 1,000 at \$4.75; to Rattkowsky 4 cows av 970 at \$3.50, 3 butchers av 340 at \$3, 3 do av 400 at \$2.75.

Downing sold Bresnahan 3 canners av 847 at \$2.25.

Same sold Parker, W. & Co. 5 av 1,060 at \$2.75, 2 bulls av 1,035 at \$3.50.

Adams sold Hammond, S. & Co. 7 canners av 917 at \$2.60.

Same sold Lachalt 10 butchers av 902 at \$4.65.

Veal Calves.

Receipts, 605. Market steady at last week's close; common grades very dull. Best, \$8@8.50; others, \$4@7.50. Milch cows and springers, quality common, market steady.

Bishop, B. & H. sold Parker, W. & Co. 5 av 145 at \$8, 1 weighing 210 at \$7.50, 2 av 110 at \$6, 27 av 140 at \$7.75, 1 weighing 120 at \$5, 3 av 125 at \$8, 6 av 140 at \$7.75; to Hammond, S. & Co. 12 av 160 at \$8.75, 2 av 220 at \$6, 3 av 145 at \$8.50, 3 av 130 at \$8, 8 av 140 at \$8.25, 7 av 135 at \$6, 7 av 140 at \$8; to Rattkowsky 3 av 135 at \$7.50; to Sullivan P. Co. 3 av 160 at \$8.50, 2 av 110 at \$6.50; to McGuire 4 av 155 at \$8.25, 2 av 110 at \$6, 12 av 150 at \$8.50; to Newton B. Co. 10 av 132 at \$5, 21 av 140 at \$8; to Burnstine 3 av 160 at \$8, 6 av 170 at \$9, 9 av 140 at \$7.50.

Spicer & R. sold Sullivan P. Co. 2 av 85 at \$6, 3 av 140 at \$8; to Newton B. Co. 4 av 145 at \$8.25, 3 av 140 at \$7.50; to Sullivan P. Co. 4 av 155 at \$8.50.

Robb sold Newton B. Co. 2 av 95 at \$4.10, 2 av 135 at \$8.

Downing sold Rattkowsky 9 av 140 at \$8.

Roe Com. Co. sold Mich. B. Co. 14 av

145 at \$8, 2 av 140 at \$7.50; to Sullivan P. Co. 4 av 145 at \$6.

Haley & M. sold Mich. B. Co. 9 av 130 at \$7.25; to Sullivan P. Co. 2 av 215 at \$3, 3 av 110 at \$7.

Sheep and Lambs.

Receipts, 5,731. Market steady at Wednesday and last week's closing prices; common grades dull. Best lambs, \$4.75@5; fair lambs, \$4@4.50; light to common lambs, \$3@3.25; fair to good sheep, \$2.50@3; culs and common, \$1@2.50.

Bishop, B. & H. sold Hammond, S. & Co. 16 sheep av 90 at \$1.75, 23 do av 120 at \$2.50, 16 lambs av 57 at \$2.75, 9 do av 65 at \$4.50, 56 sheep av 125 at \$2.50, 52 lambs av 70 at \$4.75, 7 do av 55 at \$3, 33 do av 70 at \$5, 52 do av 70 at \$5, 17 do av 60 at \$3.25, 17 sheep av 92 at \$3; to Thompson Bros. 34 lambs av 45 at \$2, 57 do av 52 at \$2; to Sullivan P. Co. 16 sheep av 120 at \$3, 26 do av 125 at \$2.75, 15 do av 80 at \$2.50, 10 lambs av 58 at \$3.50, 88 do av 75 at \$4.75; to Barlage 49 do av 50 at \$3.50, 46 do av 53 at \$3.50, 12 do av 55 at \$3.50; to Nagle P. Co. 112 do av 67 at \$4.60, 148 do av 73 at \$4.50, 139 do av 76 at \$4.85, 31 do av 83 at \$4.60; to Fitzpatrick Bros. 18 sheep av 90 at \$2, 17 lambs av 55 at \$3.25, 62 do av 75 at \$5, 14 do av 53 at \$3.50, 3 sheep av 88 at \$2; to Russell 58 lambs av 48 at \$3.35, 15 sheep av 70 at \$2.25, 31 do av 115 at \$3, 79 do av 90 at \$2, 20 do av 90 at \$2.25; to Williamson 56 lambs av 65 at \$4.50.

Roe Com. Co. sold Newton B. Co. 53 lambs av 73 at \$4.25, 20 do av 58 at \$3; to Sullivan P. Co. 3 sheep av 92 at \$1.50; to Barlage 21 do av 90 at \$2.50, 37 lambs av 60 at \$4; to Mich. B. Co. 46 sheep av 139 at \$3.25, 32 lambs av 88 at \$5.10, 30 do av 58 at \$4.50, 1 sheep weighing 140 at \$3; to Hayes 35 lambs av 50 at \$3, 80 do av 62 at \$4.25.

Spicer & R. sold Mich. B. Co. 10 lambs av 42 at \$3, 23 sheep av 100 at \$2.75; to Sullivan P. Co. 15 do av 80 at \$1.60, 9 do av 85 at \$1.25, 48 lambs av 90 at \$2.75; to Youngs 40 lambs av 63 at \$4.50, 18 do av 60 at \$4.50; to Eschrich 21 do av 57 at \$3.50, 36 do av 50 at \$3, 13 sheep av 88 at \$1.75.

Haley & M. sold Newton B. Co. 26 lambs av 70 at \$3.50, 63 do av 75 at \$4.50; to Mich. B. Co. 49 sheep av 120 at \$2.75; to Youngs 45 lambs av 73 at \$4.50; to Eschrich 21 do av 57 at \$3.50, 35 do av 50 at \$3, 13 sheep av 90 at \$1.75.

Downing sold Newton B. Co. 18 lambs av 70 at \$4.50.

Hogs.

Receipts, 8,196. Market 5c lower than on Wednesday; 15@20c lower than last week.

Range of prices: Light to good butchers, \$6@6.15; pigs, \$5.50@5.75; light yorkers, \$6@6.05.

Roe Com. Co. sold Sullivan P. Co. 240 av 200 at \$6.15, 320 av 180 at \$6.10, 65 av 170 at \$6.

Bishop, B. & H. sold Hammond, S. & Co. 1,815 av 190 at 6.15, 2,025 av 170 at \$6.10, 1,250 av 160 at \$6.05, 720 av 150 at \$6, 180 av 130 at \$5.90.

Spicer & R. sold Parker, W. & Co. 1,700 av 200 at \$6.15, 920 av 180 at \$6.10.

Haley & M. sold same 860 av 180 at \$6.10, 375 av 190 at \$6.15.

Friday's Market.

November 17, 1911.

Cattle.

Receipts this week, 1,852; last week, 2,124. Market active at Thursday's prices.

We quote: Best steers and heifers, \$5.50; steers and heifers, 1,000 to 1,200, \$5@5.25; do. 800 to 1,000, \$4.50@5; do. that are fat, 500 to 700, \$3.50@4; choice fat cows, \$4; good fat cows, \$3@3.50; common cows, \$2.50@3; canners, \$1.25@2.25; choice heavy bulls, \$4; fair to good bolognas, bulls, \$3.50@3.75; stock bulls, \$2.75@3.25; choice feeding steers, 800 to 1,000, \$4.25@4.75; fair feeding steers, 800 to 1,000, \$4@4.25; choice stockers, 500 to 700, \$4@4.50; fair stockers, 500 to 700, \$3.50; stock heifers, \$3@3.50; milkers, large, young, medium age, \$4@5.50; common milkers, \$2@3.

Veal Calves.

Receipts this week, 1,095; last week, 989. Market 25c lower than on Thursday. Best, \$8@8.50; others, \$4@7.50. Milch cows and springers steady.

Sheep and Lambs.

Receipts this week, 12,200; last week, 9,692. Market 5@10c lower than on Thursday. Best lambs, \$5@5.10; fair lambs, \$4@4.75; light to common lambs, \$2.75@3.50; fair to good sheep, \$2.75@3.50; culs and common, \$2@2.50.

Hogs.

Receipts this week, 18,257; last week, 14,709. Market steady with Thursday. Light to good butchers, \$6.25@6.35; pigs, \$5.25@5.75; light yorkers, \$5.80@6.20.

ADDITIONAL VETERINARY.

Enlarged Fetlock—Chronic Cracked Heels—Scouring—I have a driving horse that I am training for track work that has enlargement of fetlock joint and below the fetlock there are hard ridges where heels formerly cracked open. Would you advise blistering for both ailments? This horse has been inclined to scour when used for fast work, but since I have been driving him on road his bowels are all right. G. F. B. Kibbie, Mich.—Apply one part iodine and eight parts lard to enlarged fetlock, also to ridges of scar tissue every other day. If your horse is healthy, his bowels will perhaps be all right next season. Such ailments are best controlled by careful feeding and watering often.

Indigestion. My work horses do not appear to be sick, are only seven years old, are fed best of timothy hay, corn or oats but they are gradually growing thin. D. W. Y. Petoskey, Mich.—Their teeth may need floating; however, if no whole corn or oats pass them, it is not necessary. Mix together equal parts powdered sulphate iron, gentian, ginger,

fenugreek and salt and give them each a tablespoonful or two at a dose in feed three times a day. Also feed them some roots.

Nervicular Lameness.—Three-year-old colt went lame in one fore leg last April and has never recovered. Have consulted two different Vets. One of them says the lameness is in coffin joint and the other is undecided. We have applied two blisters at different times to coronet without results and colt has been in pasture until lately. J. M. P. & S. Hastings, Mich.—If the lameness is in coffin joint, she will point foot and hold it in advance of opposite one, the heel will be slightly contracted and feverish. Apply cerate of cantharides to coronet once a week and give her rest. The coffin bone may be fractured.

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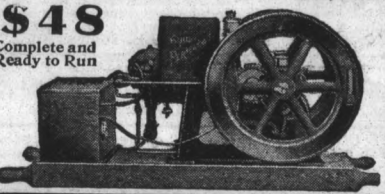
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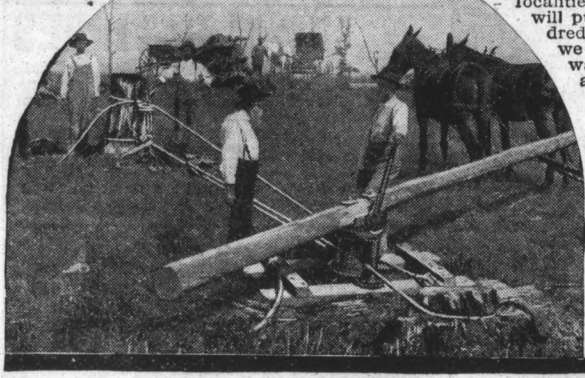
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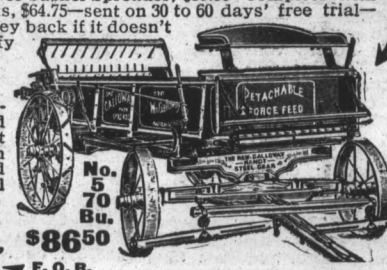
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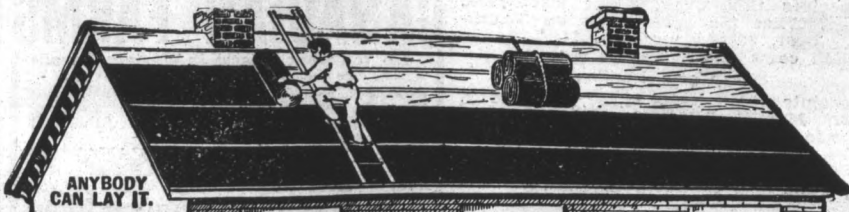
I want 10 men in every township to write me at once for my latest Spreader Catalog and my astonishing offer on the best spreader in the world—Galloway's New No. 5 with Mandt's New Gear. I'm determined to place 10 of these great manure spreaders in your township quick. To do so I'll cut prices to the bone. Will you be one of the 10 to get the great benefit of this special deal? Why hand over \$50 extra to a dealer or agent when you can buy direct from Galloway? Keep the money in your pocket and get a better machine. My 45-55 bushel Spreader, \$39.50—complete with trucks, \$64.75—sent on 30 to 60 days' free trial—money back if it doesn't satisfy you.

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WILLIAM GALLOWAY, President
William Galloway Company, 649 Galloway Station,
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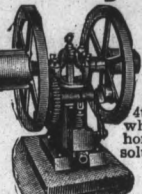
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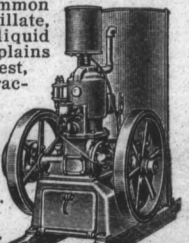
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