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AND *LIVE STOCK*
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DETROIT, MICH., SATURDAY, DEC. 18, 1909.

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FOREVER SHINES  BETHLEHEM'S STAR

THOU SHALT LOVE THY
NEIGHBOR AS THYSELF

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WHY NOT
THE CHRISTMAS
SPIRIT THE YEAR
AROUND?



ED. O. PEETS.

FARM NOTES.

Seed Selections and Fertilization.

In the last issue, H. M. Wells, of Livingston county, gave his experience in the selection of seed potatoes by saving the best hills and in fertilizing liberally with commercial fertilizer on a portion of the field. For some reason he had better results on that portion of the field planted from common seed and on which he put no fertilizer. His experiment seemed to have been conducted with care and with a view of determining whether seed selection and fertilization of this kind would prove profitable on a large scale. Naturally, from the results obtained he asked the very pertinent question, "Where does the pay for the fertilizer come in," and with regard to seed selection by the hill method he remarked as pertinently that, "I did not select any seed this fall."

Now, Mr. Wells seems to have satisfied himself upon these points. That is his "funeral," but for the benefit of the general reader we feel it our duty to touch upon these points, and give such other evidence as may be available with regard to these practices which Mr. Wells found unprofitable. The reader will note that W. C. E., of Eaton county, in the same issue gave his opinion as a result of a single year's experiment that we need to pay more attention to this hill method of selecting our seed potatoes. Seeking evidence upon this point from some of the potato growers in the state who have experimented longest in selecting seed potatoes for a seed breeding plot from the best hills, the writer addressed an inquiry, among others, to Mr. C. A. Tyler, of St. Joseph county, who is well known to many of our readers and whose reply emphasizes a point to which we believe Mr. Wells has not attached sufficient importance, for which reason we quote from his letter as follows: "No one can give a report that is of any value if his operations cover but a single season. Conditions, precipitation, fertilization, cultivation, atmospheric conditions, all have so much to do with the potato crop that it is foolish indeed for any man to presume to show results with but one or two years' data to go by. I am of the opinion that after one had been at it for 75 or 100 years, he would be able to furnish some interesting data. I make this assertion however, that in my opinion one may increase his yield by 50 bushels per acre in six years of proper hill selection of his seed. I know of no other method that can ever hope to achieve like results. I know of no other method that will secure results that are permanent."

Others who have experimented along this line for several successive years are of the same opinion. We believe that their experience is worth something; that it is worth more, in fact, than that of one who has experimented along this line for but a single season, and we believe a point that merits especial emphasis is that the seeker after authentic knowledge should not be satisfied with a single trial of any proposition the result of which depends to a very considerable degree upon conditions other than those which are made the basis of the trial.

With regard to fertilization of the potato crop with commercial fertilizers, these same arguments apply. Statistics show that the potato growers of Maine get about twice the yield per acre that Michigan growers secure for a series of years, and the Maine growers universally use heavy applications of high grade commercial fertilizers, generally some 1,200 to 1,500 lbs. per acre being applied. Many of our experiment stations have also determined that heavy applications of fertilizers are profitable with potatoes. Of course, other conditions have a great deal to do with the problem, but we believe that the experience of a large class of eastern potato growers, covering a long period of years, is a safer guide upon this point than a single year of unfavorable experience by a Michigan grower.

But these are very important points for every Michigan grower to determine for himself and under his own conditions. If it is possible for him to get results such as are noted by Mr. Tyler in the selection of seed by the hill method, he certainly wants to do it and should experiment for several years along this line in a small way at least, until satisfied what it will do for him under his local conditions. The same thing will apply with equal force in regard to the use of fertilizers. The wise grower will try out these propositions for himself, in a small way, at least, until he learns the lesson which they hold for him, and that

lesson is not all told in a single year's experience, be it favorable or otherwise.

THE HYDRAULIC RAM FOR SUPPLYING WATER.

When I bot "Grand River View" farm a few years ago, I found the time honored method of supplying water was from a small spring enclosed by a barrel, at the foot of a steep clay hill. The animals all had to be watered there too, being driven across the road and down the hill to the spring which was enclosed by a board pen. In pleasant weather this was a bothersome task, but in wet weather and when it was icy—well, the acrobatic stunts the stock performed would have made them star attractions at a circus. And if we forgot to get a pailfull for table use before the stock was watered, we found it pretty "roily," to say the least. Then when the heavy rains came it was entirely unfit for use. Carrying two pails of water at a time up a slippery hill in the winter is conducive to thot, and before spring I had studied out a way to make the "water run up hill."

The spring, as I have mentioned, was at the foot of a forty-foot bluff that ran parallel with the Grand river. Between the foot of the bluff and the river was a strip of muck land some 200 feet wide which sloped to the river about fifteen feet below. I found that the water oozed out all along the bluff into the muck, making it so wet the stock sometimes mired in it. The water being held by a stratum of hardpan overlaid with gravel.

So I dug a ditch up next to the bluff, to avoid the muck and secure a pure water supply in the gravel and laid in tile to gather the water, then conducted it by a two-inch pipe to a barrel sunk in the ground, which I used as a reservoir. From the barrel the large pipe led down toward the river as far as possible to get more power, without danger of being overflowed when the river was high. There a hydraulic ram was attached enclosed by a large tile. A small half-inch pipe conducted the water up to the house lifting it to an elevation of fifty feet.

As it seems to be an object of much curiosity and unfamiliar to many people, I will explain that a ram is an iron machine small enough to put in a water pail. Its power is mechanical, simply driving the water up hill thru the force and fall of the water running into it. In theory, ten gallons of water will force one gallon ten feet high for every foot fall. In practice it is somewhat less.

By gathering the water by tiles and storing it in the barrel I have plenty to run the ram which forces a constant stream of water into the house night and day. The cost of the ram was \$5.50 and the repairs in five years have been practically nothing. After the first cost of ditching and piping it runs itself. The only trouble we had was caused by a frog crawling in where a screen had rusted off the end of a pipe. A rod shoved thru routed him from his winter quarters and a new screen remedied that disturbance.

When installing the ram I also put in sewer tile down to the river and with the water from the ram we have all the city conveniences of bath-room and toilet in our country home.

From the house the water is also piped to a cooling tank where we have no difficulty in keeping our milk from Saturday night until Monday when it is all sent to the condensary.

I built a new barn on the side of the road next the river and have gathered the water there along the bluff in a similar manner where it flows in a tank making a convenient watering place for stock and with a constant flow does not freeze over. Incidentally the strip of muck land was drained so that a team can be driven anywhere on it.

Doubtless among the readers of The Farmer there are many that have springs large enough to run a ram by simply laying the pipe without the trouble of gathering the water that I had. The hydraulic ram is very commonly used in the east and if one has a spring of pure brook water available, it is the cheapest and best water supply one can use.

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F. M. STOCKMAN.

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

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THE BUSINESS SIDE OF FARMING.

A Bank Account.

There is not only every reason for the farmer conducting his business by means of a bank account that can be given for the tradesman or manufacturer but additional reasons. The farmer is more isolated in residence and cannot protect himself from burglary or thievery as can the city dweller who usually has a safe for books mainly, but also a cash drawer. The farmer's habits of life do not make his person a safe place to carry money since coat and vest are often laid aside. Strenuous stooping or climbing at labor makes the pocketbook an undesirable accompaniment. In making the exact change and close figuring the writing of a check is not only a positive saving but a receipt for the payment. Many of the reasons for a farmer's set of books for business records are unnecessary by use of a check book.

Since the quantitative theory of money in actual available use influences prices directly, as the volume is well established, the farmer is quite as much under obligations as any one to maintain his actual money in condition for available use by depositing in a local bank. A bank account means prompt cash settlements, the lack of which is largely the cause of farmers being obliged to pay the cost of credit in prices. The farmer who prides himself in paying cash in a measure receives the saving of cash payments, for his neighbor who buys on credit often pays the same price. The prices made by catalog houses, every one knows are for cash, and the local merchant is often unjustly made to bear the odium of high prices when he is merely compelled to be both a tradesman and a credit banker. An eccentric merchant in Utah had his goods marked, cash price so much, credit price so much, and the difference was quite startling.

The effect of the farmer's example in depositing money is cumulative. His hired man learns to send the checks for wages to the bank for deposit and acquires habits of saving. He takes pleasure in seeing the account grow. A farm laborer who saved his money made the somewhat startling observation that he did not have to buy clothes any more. The ambiguity of expression was made plain by the fact that the interest received clothed him. The farmer's pay for products sold is probably 75 per cent paid in checks and what is a convenience to those who pay can be made useful to the farmer as well. The bank really becomes a clearing house for transactions, and just why the business farmer should drop out and not complete the cycle is difficult to see. The business farmer will gain by cultivating an acquaintance with the methods others employ in transacting business.

The Farmer's Use of Credit.

Allied to depositing money in the bank is the use of bank money by means of loans. Discounting a note at the bank is not a humiliating matter but in reality the bank endorses your credit or underwrites your ability to make a profit for yourself and for the bank out of a transaction. The farmer is not, or should not as a rule, be a speculator, but he should be able to bring feed and live stock together to produce meat or milk at a profit to better advantage than anyone else. The advantage of the farmer as a finisher of mutton has driven the professional sheep-feeding operator out of business. The use of by-products for dairy feeds is often more profitable than the farm grown feeds, by reason of being a cheaper source of protein, yet many farmers do not purchase because they do not want to pay out the money until the product of milk is converted into cash. By the use of bank credit at a cost of 6 per cent, 25 per cent profit is often easily obtainable.

Various farmer societies have at times proposed to fix prices of farm products, but with a small degree of success. Local bank credit extended to the farmer will be found a greater palliative of market gluts and price demoralization, if rightly used.

These questions are becoming more and more important as agricultural wealth increases and what may have been an academic question, or of but passing interest, is now of great interest. A Milwaukee packing house sent out circulars, some 30 days ago, which in substance guaranteed to the farmers remunerative prices for pork if they would feed it to mature weights. The farmers had the swine and the corn, the Packing Company guaranteed a safe minimum price, and wherever necessary, bank credit would be the remaining available factor of an

added degree of wealth to the farm community. A suggestion to those who make up institute programs would be to secure your bank president or cashier to give a talk on the relation of the farmer to banking matters. One of the reasons of the rapid development of the western country has been a better use of bank credit in farm circles, and the investment of surplus money at home. The eastern banker has looked for farm mortgages for purchase money rather than for going capital and the use of credit has been extended more to manufacturers and tradespeople. One hears a great deal about "cattle paper" and "sheep paper" in western bank circles, but little of that or similar collateral in the east.

Wholesale Purchases.

There is perhaps no hard and fast line that distinguishes what should be bot at wholesale rates and what are properly retail classifications. Farmers themselves should establish and educate dealers to establish such a classification. There are certain of the heavy purchases made by farmers that should command wholesale prices, or direct dealing. Fuel, feeds and fertilizer might be declared wholly in the list. Where a farmer is a manufacturer that is converting something of raw material into finished product, he should have wholesale prices on the raw material. To do this the farmer or a few farmers must become users in car load lots. It is doubtful if the dairyman with 10 or 20 cows realizes the aggregate of feed bot. In fact, purchases made in small lots from time to time is more of a habit than a necessity. A comparison of the farmer with 160 acres of land, and the average equipment of stock, tools, etc., with the drayman who purchases a sack of corn and oats ground for his team, is ludicrous. The manufacturer buys feed for his one driving horse at the same rate as the dairyman who keeps 10 cows. The manufacturer buys the raw material that enters into his production at jobbers' rates, but the farmer buys his raw material at retail. Common business sense applied ought to establish these classifications in equity to all. It is doubtful if this principle can be applied to the personal consumption of the farmer. One's clothing can scarcely be made a matter of wholesale price, unless he might be at the head of a Mormon family. Tea, coffee, sugar, etc., are legitimate goods for lower prices to the boarding-house keeper or hotel proprietor, but not of necessity to family purchasers. The establishment of the principle that will make farmers insist on wholesale rates where equitable, means simply the application of business principles that is conceded to others.

Shiawassee Co. JAS. N. McBRIDE.

VALUE OF GOOD PASTURE LAND.

What would be the value per acre of well watered pasture land? Tillable land adjoining is worth perhaps \$40 per acre. Muskegon Co. SUBSCRIBER.

At the present prices of dairy products and the present prices of all kinds of meat products, I am of the opinion that good pasture land is well worth from \$30 to \$50 per acre, if it is well watered and if the land is of such nature that it does not dry out too much during the summer time. I take it, of course, that this land that Subscriber speaks of is land that cannot be tilled. It is either too rough for tillage or is not properly cleared for tillage, or something of that sort, and yet affords quite an abundance of grass. Where adjoining land can be bot for \$40 an acre, it would be a question whether it would not pay to pay \$40 an acre for the land which could be turned to other use if one wished to, rather than buy the other land at even a reduced price, because the good land at \$40 per acre is a good investment to pasture good stock of any kind.

COLON C. LILLIE.

The Rifle that Reached the Pole.

The Winchester is the rifle that went to the North Pole. It was carried personally by Commander Robt. E. Peary. In regard to this Commander Peary says: "Personally I always carry a Winchester Rifle. On my last expedition I had a Model 1892 .44 caliber carbine and Winchester cartridges, which I carried with me right to the North Pole." Harry Whitney also carried Winchester rifles and cartridges on his hunting trip in the Arctic regions. He says: "They never failed me." Ex-President Roosevelt, too, is using Winchester rifles and cartridges in Africa and writes of his success with them in his Scribner articles. The fact that all these great figures in the present day annals of hunting and exploration personally chose Winchester rifles and cartridges for their equipment carries its own suggestion. Such experienced men would not carry rifles and cartridges which they did not consider absolutely dependable.

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LIVE STOCK

FEEDERS' PROBLEMS.

The Feeding Value of Some By-Products.

What is the feeding value of clover chaff or straw? That is, after the seed is threshed out of it. 1, for sheep; 2, for milch cows; 3, for horses. What is the feeding value of cull beans of good quality? 1, for sheep; 2, for hogs; 3, for cattle. What is the nutritive ratio of peas and of beans?

SUBSCRIBER.

The feeding value of clover chaff will depend not a little upon the condition in which the seed crop is secured. It is not given in the list of feeds enumerated in any of our available feeding tables, and should not be depended upon as a very large factor in the ration of any kind of livestock. However, sheep, cows, or young cattle will consume some of it with profit provided an occasional feed is given by way of variety or provided it is scattered in the yard or placed in racks where they may have an opportunity to pick it over and select such portions as they may desire. They should not, however, be required to eat it closely, as would be the case with hay, nor should it be used to displace any considerable amount of other more nutritive feeds in the ration. It should not be fed to horses on account of its being a bulky and dusty feed, but if used as above noted, considerable feeding value will be secured from it, while the balance not consumed may be worked into manure, being used as an absorbent in stable or yard.

The feeding value of cull beans depends not a little upon the kind of stock to which they are fed, the extent to which they are made a factor in the ration, and the form in which they are fed, either alone or in combination with other feeds. For sheep they may safely be made a

found on the farm, that would answer the purpose as well or even better. Mr. Bradford, who used the smoker, says his hams and bacon came out better than any he ever cured, and he will arrange a similar smoker in his new smokehouse that he will build this season.

Missouri.

J. E. B.

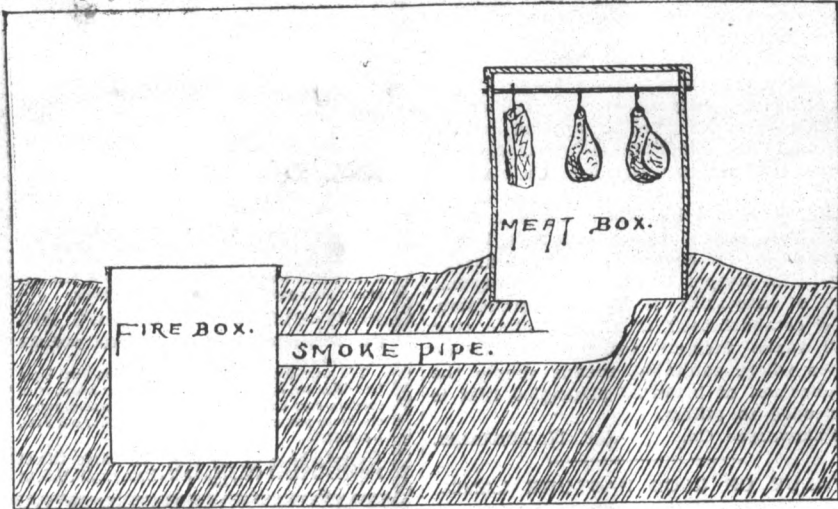
CHAMPIONSHIP AWARDS AT THE INTERNATIONAL.

The following is a list of the Championship awards in the breeding classes at the International.

Breeding Cattle Championships.
Shorthorn, grand champion bull, Selection, senior yearling owned by E. W. Bowen, Delphi, Ind. Grand champion cow, Dorothea 5th, senior yearling, C. E. Clark, St. Cloud, Minn.
Aberdeen-Angus, grand champion bull, Glenfold Thickset, aged bull, owned by W. A. McHenry, Denison, Ia. Grand champion cow, Pride McHenry, junior yearling heifer, owned by W. A. McHenry, Denison, Ia.

Hereford, senior champion bull, Prime Lad 9th, owned by W. S. Van Natta & Son, Fowler, Ind. Junior champion bull, Beau Columbus, owned by Giltner Bros., Eminence, Ky. Senior champion cow, Princess 2d, owned by Cargill & Price, La Crosse Wis. Junior champion cow, Lady Fairfax 12th, owned by Warren T. McCray, Kentland, Ind.
Galloway, senior champion bull, Speculation, owned by C. E. Clark, St. Cloud, Minn. Senior champion cow, Cora of Meadow Brook, owned by C. E. Clarke. Junior champion bull, Stanley of Maples, owned by C. S. Hechtner, Chariton, Ia. Junior champion cow, Darleen 2d of Rivers, owned by A. F. Craymer, Morris, Ill.
Polled Durham, senior champion bull, Marshall of the Mound, owned by W. H. Miller & Sons, Mulberry, Ind. Senior champion cow, Queen of Miami 5th, owned by J. H. Miller, Peru, Ind. Junior champion bull, Secret Victor, owned by J. H. Miller. Junior champion cow, Lady Marshall, owned by W. H. Miller.

Breeding Sheep Championships.
Shropshire ram, Elmendorf Farm, Lexington, Ky., on aged ram; ewe, Chandler Bros., Chairton, Ia., on yearling.
Lincoln ram, Alex W. Arnold, Galesville, Wis., on aged ram; ewe, Arnold on yearling.
Leicester ram, A. and W. Whitelaw,



factor in the ration by using them in combination with corn and oats mixing the grains in about equal proportions. For hogs the beans should be cooked. Very fair gains are made on cooked beans alone, but it is good economy to combine them with corn in about equal proportions. The same facts appear to apply with feeding cattle, the feeding of other grains being even more important in their case.

The nutritive ratio of peas, digestible nutrients alone being considered, is about 1:3.2. The nutritive ratio of cull beans would be fully as narrow. It will thus be seen that where this grain is available, it affords a source of cheap protein, and makes a valuable feed for use in combination with other grains for hogs, sheep, or cattle, but for breeding animals, care should be taken not to feed cull beans in excessive quantities.

SMOKING MEAT.

The meat smoking device herewith illustrated, was used by a Missouri farmer last season, on account of his smokehouse being burned, along with other buildings, just at the time he was ready to smoke his meat. The firebox was made from an old lard can, the smoke pipe from three joints of four-inch tile, and the meat box from a large packing box. As will be seen, the meat was swung from sticks placed across the box, in two-inch holes, bored for the purpose. The top of the firebox had several small holes punched in same for providing a slight draft to the fire. The fire was built of dry cobs, and green hickory wood, and the cover replaced. The lard can, tile, and goods box were used simply because they were the only thing handy, and are, of course, not at all necessary to the successful operation of this smoker, and no doubt if one had time, other material could be

Guelph, Ont., on aged ram; eye, Whitelaw on yearling.

Hampshire Down ram, Cooper & Nephews, Chicago, on yearling; ewe, Cooper & Nephews on lamb.

Cheviots, G. R. Parnell, Wingate, Ind., had no competition and won in all classes. Rambouillet ram, A. A. Wood & Son, Saine, Mich., on yearling; ewe, L. W. Shaw, Pottersburg, O., on yearling.

Dorset ram, W. H. Miner, Chazy, N. Y., on yearling; ewe, Chas. Leet & Son, Mantua, O., on yearling.

Oxford ram, Geo. McKerron & Sons, Pewaukee, Wis., on aged ram; ewe, Cooper & Nephews, on lamb.

Suffolk, Jas. Bowman, Guelph, Ont., had no competition and won all prizes.

Breeding Swine Championships.
Berkshire grand champion boar, to Penshurst Farm, Naibeth, Pa., on Star's Royal Mastpiece 2d. Grand champion sow, to Penshurst Farm on Premier Betty Lee.

Poland China grand champion boar, Garrison & Speed Bros., Rushville, Ill., on Skyrocket. Grand champion sow, J. E. Meharry, Tolono, Ill., on Correctress.

Hampshire grand champion boar, E. C. Stone, Armstrong, Ill. Grand champion sow, E. C. Stone.

Chester White, grand champion boar, to C. R. Doty, Charleston, Ill. Grand champion sow to same.

Tamworth, champion boar, to Frank Thornber, Carthage, Ill. Champion sow to same.

Duroc-Jersey, grand champion boar, Defender, owned by H. E. Browning, Hersman, Ill. Grand champion sow, to White Hall Farm, E. S. Kelley, Prop., Yellow Springs, O.

Large Yorkshire, grand champion boar, to B. F. Davidson, Menlo, Ia. Grand champion sow, to same breeder.

Horse Championships.

Percheron stallion, Carnot, owned by J. Crouch & Son, Lafayette, Ind. (Immediately after winning this premium the stallion was bot by W. S. Corsa, Whitehall, Ill., for \$10,000. Champion mare, Amorita, owned by Maassdam & Wheeler, Fairfield, Ia.

Cyldesdale Stallion, Robt. A. Fairbairn, Westfield, N. J., on Garty Pride. Mare, W. L. Houser, Mondovi, Wis., on Princess Fortune.

Shire stallion, Dan Patch, owned by Truman's Pioneer Stud Farm, Bushnell, Ill. Champion mare, Wrydeland's Sunshine owned by same breeder.



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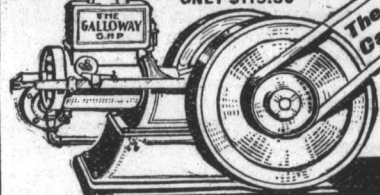
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We will send you 100 lbs. of DR. HOLLAND'S MEDICATED STOCK SALT on 60 days' trial, freight prepaid. If you derive no benefit, it costs you nothing; if you do it costs you \$5.00. Give us your order at once. THE HOLLAND STOCK REMEDY COMPANY, Wellington, Ohio.



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THE FEEDING VALUE OF CORN AND COB MEAL.

The writer has had considerable experience in feeding corn and cob meal to horses, cattle and hogs, and his experience of its feeding value is not so favorable as some others who have written on the subject. All the animals he ever fed would root it over and try to lick out the kernel part of the meal, which they greatly preferred.

Corn in the ear cannot be ground so fine as shelled corn, even when both corn and cob are dry. Most farmers have no old corn left in the fall when feeding begins, and have to commence feeding the new crop as soon as husked, when it is utterly impossible to grind corn and cobs together and grind them as fine as they should be to obtain their full feeding value. The cob retains moisture much longer than the grain, which makes them grind tough, and if the attempt is made to grind fine, the millstone will begin to "grumble," and the furrows will glaze over with a sticky paste, and the mill will go slower, and slower, and unless the stones are raised and allowed to grind coarser, will choke down with a full head of water on the wheel. I am not guessing at this. My father owned a grist mill, and I sometimes tended it when the miller had to go away. A cob meal craze broke out in this part of Pennsylvania about 40 years ago, attracted a good deal of attention at the time, ran its course, and died out. At the suggestion of his miller, and the solicitation of his customers, my father built an addition to his mill, put in an extra water wheel, and procured the best machinery for crushing the cobs, and grinding corn in the ear. For a time it seemed to be a profitable investment. He ground the corn for his regular customers, and attracted custom from other mills to such an extent that the other mills had to put in the machinery for grinding corn in the ear. The additional cost of grinding the cobs with the kernels, was really nothing to the farmer, as cobs are not worth anything except for fuel, and the miller only took a tenth of the grist, including the cobs. The mill was kept in good order, the millstones sharp, and the meal ground as fine as possible, (which, owing to the moisture in the cobs could not be very fine), and the miller was honest but gradually the corn and cob custom fell off, and in the course of two or three years had ceased entirely. The case was the same with every mill in this part of the country, and I do not know of a single mill that now has the machinery for grinding corn in the ear, but they all have corn shellers, and shell the corn of their customers free of cost, if ground in their mills.

What was the cause of this abandonment of feeding corn and cob meal? The farmers having given it a thorough trial became fully convinced that the feeding value of cobs was so little that it did not pay to have them ground for feed and that the ear could not be ground as fine as shelled corn. The advocates of cob meal admit that cobs contain but very little, if any, nourishment, but believe their value consists in making the ration more bulky, and by filling the stomach of the animal better enable the digestive organs to act upon it to better advantage and extract more of its nutrients.

I heartily agree with them that grain feeds will do horses and cattle more good when rendered more bulky and porous, by a mixture with some kind of fodder of lower feeding value. Professor Henry says: "Corn cobs from well matured corn can certainly have no greater feeding value than oat straw, for example." For cattle, I prefer cutting up cornstalks, or good bright straw, and after moistening it with water mix the corn meal (with some wheat middlings added), to stick the corn meal fast to the mess. In the absence of middlings, I have a little rye, or oats ground with the corn to stick it fast to the straw so that all must be eaten. This has been my practice, and I have wintered cows, steers, and horses on cut straw mixed with corn and rye meal and wintered them in excellent condition. Cut straw is certainly worth more as feed, and will digest better than cobs.

John Gould, an authority on dairying, has suggested that the value of cobs lies in their potash. Truly, cobs contain considerable potash, and do does sawdust, but nobody thinks of feeding sawdust for the sake of the potash.

The cob, with the exception of the pith in the center, and a few hulls, is composed of hard, flat, circular substances with sharp edges that are not only indigestible but sometimes irritate the bowels of animals, and bring on diarrhoea or

undesirable looseness, as I have seen. It does not require strong spectacles to discover the little circular hard discs. Try whittling a dry cob and you will find those substances hard as hemlock knots. Pennsylvania. J. W. INGHAM.

There is a marked difference in the conditions which surround the milling business, as well as all other manufacturing businesses, at the present time as compared with several years ago. This writer's experience in the feeding of corn-and-cob meal seems to have been confined to the days when the old mill stone was still in common use. But the inventive genius of young America has been busy with this problem, as well as many others, and the old mill stone has been replaced by modern and specialized machinery, better adapted to the grinding of corn and cob meal, as well as that better adapted to the manufacture of high-class flour. At many of our experiment stations corn-and-cob meal properly ground has been found to be of equal value, weight for weight, with corn meal in the feeding of farm animals, as heretofore noted in these columns, and where the proper facilities are at hand and their corn is in a proper condition many farmers, dairymen and feeders are now finding it to their advantage to grind the cob with the corn. In other cases this is not practicable, and the individual feeder is the best judge of the practical adaptability of this plan, under his conditions. So far as the feeding of the cob being injurious to the animal is concerned, we believe there is no well founded fear. The condition and thrift of the animal is the best guide in this respect, since the thrifty animal is surely not suffering from any damage to or derangement of, the digestive organs, which condition is certain to manifest itself in the appearance of the animal. Many good feeders in this state now feed shock corn year after year with good results, and the western practice of feeding broken or sliced ear corn could not have endured if the feeding of the cob were injurious to the animal.—Ed.

LIVE STOCK NOTES.

Michigan farmers would like to buy many thousand more feeding lambs, as the feeding proposition seems extremely bright this winter, but the supply is not forthcoming, now that the range shipping season is over. At this time feeder buyers have to depend on such half-fat fed western lambs as happen to be marketed from Iowa feeding sections and elsewhere, a good many of such stockmen not clearly understanding the industry, while many of them fail to provide shed shelter for their flocks and are obliged on the appearance of wintry weather to market them, whether finished or not. Such stock comes high in the market, and filling sheds with "warmed-up" stock is expensive. Montana has marketed a two-year "crop" of old ewes during the season just closed, supplies being taken by feeders at comparatively low prices, and they should return good profits if taken good care of. A good many breeder ewes have been sold also, and the breeding industry is growing. Wool is nowadays an extremely important factor in the sheep market, and the high prices paid increase profits of sheepmen materially. The trend of events in the wool business is pointed out clearly by the eagerness of buyers to contract for the spring clip of 1910, and wool growers who make such early contracts are likely to regret it.

A prominent Chicago live stock commission house, with branches at other important markets, says: "We are receiving many letters from parties who have cattle in partly-fatted condition asking whether it is advisable to market the same in the immediate future. We unhesitatingly and with all confidence, say NO. The chief trouble is that too many cattle feeders are of the same mind at this time—they want to liquidate their offerings in half-fat or two-thirds fat condition. The wise and cautious feeder will break away from the crowd this winter. During the past several winters those who short-fed their cattle have won out, as against losses for those who finished theirs. But all signs indicate that the pendulum will swing the other way."

After the case had been in the courts nearly fifteen years, the United States Supreme Court has affirmed the decision of the Circuit Court of the district of Minnesota restraining the enforcement of the interstate commerce commission which reduced terminal charges for live stock entering the Chicago stock yards from \$2 to \$1 a car, the charge being collected as a part of the thru freight rate. This has been the subject of no less than five decisions in the lower federal courts, besides one in the supreme court and the last final decision. The opinion of the supreme court turned upon the question as to whether the terminal charge in itself was reasonable. The court held that the charge was reasonable and that if any injustice was done to shippers by the thru charge they should go to the original source of the unjust charge and not to the terminal roads.

J. C. Butler, Portland, Mich., who has been advertising Poland China hogs in the Michigan Farmer, writes that "he has sold over 500 hogs thru his advertisement in the Michigan Farmer the last five years."

Cooked Feed Saves the Stock They Thrive & Fatten

The experience of practical stock men and farmers everywhere proves that cooked feed is best for winter feeding. Makes the stock fat and sleek; prevents disease; is the safest, surest way to save your stock.

Hog Cholera and other stock diseases are unknown where

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The Leading Horse Importers in the State of Michigan. We have opened the eyes of all Michigan horsemen by our large exhibit at the State Fair. In the previous issue of the Michigan Farmer they gave the startling news of our wonderful success, not alone over our Michigan exhibitors, but over all exhibitors of the several States that were represented in competition. We won every prize in the stallion and mare classes except the 4th prize in the 2-year-old stallion class. All our horses are now at our Barns ready for sale for less money than a good horse can be bought elsewhere with a guarantee that has stood the test for the past 23 years. Come and be convinced. Terms to suit purchaser.

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Supply will soon be exhausted for this year so order of your dealer at once, if he cannot supply you, write

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

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If you are interested in Holstein Friesian Cattle

before you buy do not fail to write us in reference to some male calves we have from carefully selected and officially tested dams some of which have made over 3 lbs. of butter in a day and sired by the Grand Champion, Ohio, Michigan and West Michigan State Fairs, 1909. Prices \$20 to \$35 each.

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Butterboy Ella De Kol No. 49509 is for Sale. Also three extra good bull calves, 5 yearling heifers, 8 good young cows. Must be sold before winter.

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HOLSTEINS—Choice Bull Calves and yearling bull at \$50 to \$75 each. **I. M. SHORMAN, Fowlerville, Mich.**

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SHROPSHIRE—Rams all sold. Eight good ewes left that a quick purchaser may have for \$75. All registered. **Willis S. Meade, R. No. 3, Holly, Mich.**

SHROPSHIRE YEARLING RAMS \$16 (sixteen) each. Express paid to quick buyer. **ROBT. GROVES, (Shepherd) R. D. 3, Pontiac, Mich.**

SHROPSHIRE CHOICE RAMS AND EWES. \$10 to \$16 each. **C. J. THOMPSON, Rockford, Mich.**

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

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

HOGS.

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

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

F. A. BYWATER, Memphis, Mich.

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

BERKSHIRES Young stock from champion State Fair prize-winners, at moderate prices. **M. D. & G. B. JOHNSON, R. No. 3, Plymouth, Mich.**

BERKSHIRE sows bred for spring farrow. Premier Longfellow & Masterpiece families. Extra choice individuals & the best breeding on earth. Also 2 very fine young boars. **C. D. Woodbury, Lansing, Mich.**

BERKSHIRES of the most fashionable type and strains. **C. S. BARTLETT, Pontiac, Mich.**

NORTHERN GROWN BERKSHIRES. ROYCROFT FARM, Sidnaw, Mich.

Two Boars, do for fall service. A few Gilts left. Also a fine lot of fall pigs ready for weaning. Either sex or pairs no kin. **A. A. PATTULLO, Deckerville, Michigan.**

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

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

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

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

DUROC JERSEYS **CAREY U. EDMONDS, Hastings, Mich.**

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

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

O. I. C's—50 HEAD of Fine Spring Pigs for Sale, either sex. Large, strong stock. **OTTO B. SCHULZE, Nashville, Mich.**

O. I. C. SWINE—Spring farrowing, either sex, not akin. **E. E. BEACH & SON, R. 3, Brighton, Mich.**

FOR SALE—O. I. C's—2 extra good boars. Some choice pigs. Rose Comb Brown Leghorns, April hatch, standard bred, at prices that will move them. Satisfaction guaranteed. **J. B. Inskeep, Holly, Mich.**

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

Poland-Chinas—Young sows bred for March and April farrow. **L. F. CONRAD & SON, R. No. 4, Lansing, Mich.**

POLAND-CHINA SOWS—\$25—Big, western type, big bone, long bodies, big litters. Sired by two great boars bred by Peter Monro, the 1000 lb. kind. **J. C. BUTLER, Portland, Mich.**

P. C. BOARS—Bony, portly fellows, your money's worth. **WOOD & SONS, Saline, Mich.**

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

POLAND-CHINAS—Long bodied, strong boned, sows, bred to choice boars. Send for snap-shot and close prices. **ROBERT NEVE, Pierson, Mich.**

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

LARGE IMPROVED YORKSHIRES—Young boars ready for service. \$18. Young sows bred to farrow next spring \$25. Fall pigs either sex \$10. Satisfaction guaranteed. If you want the most economical feeders possible, breed your sows to a Yorkshire boar. Yorkshires are sure to be the most popular breed of the future.

COLON C. LILLIE, Coopersville, Mich.

the outside of upper rows and inside of lower should be done; also give tablespoonful of ground gentian, a tablespoonful of powdered cinchona, a tablespoonful of powdered quassia and two tablespoonfuls of salt at a dose in feed night and morning.

Eczema in Sheep.—My sheep and lambs have some sort of skin ailment that causes them to itch and pull out wool and I am anxious to have them cured if it can be done. G. F., St. Johns, Mich.—Dissolve 1 oz. baking soda in a quart of cold water or 1 lb. in each four gallons and apply to skin once a day for a few days. The nicest way to apply it is by pouring on center of belly when the sheep is lying on back. By making the applications in this manner less medicine is required and you will not wet the wool much.

Hard Milker.—I have a heifer that came fresh last October which is a tough milker. An obstruction appears to have formed in lower part of teat. M. E. R., Wolverine, Mich.—There may be a stricture in teat which needs dilating with a sound, or perhaps you should use a teat opener or else apply extract belladonna once a day.

Cat Has Worms.—What can I give my cat to rid him of worms, both for the small white worms that come from the rectum and for the long brown ones which he vomits up? He has been troubled with them for the past 30 days. M. E. C., Pontiac, Mich.—Give cat ½ gr. santonine and ¼ gr. calomel at a dose daily for three or four days, then discontinue and repeat. It may be necessary to double the dose of santonine to effect a cure.

Spasmodic Colic—Indigestion.—I have a 4-year-old horse that appears to have periodical attacks of colic, but seldom shows any sickness when running on grass, but always does when eating clover or corn fodder. At times he appears to be dull and dumpy, at others nervous and uneasy. C. S., Gowen, Mich.—You had better change his feed and try to figure out what kind of food causes his sick spells. Give ½ oz. ginger, ½ oz. bicarbonate soda and ½ oz. powdered charcoal at a dose in feed three times a day; also salt him well.

Periodic Ophthalmia—Indigestion.—I recently purchased a horse that had sore eyes. The man who sold her to me claimed the sore eyes was the result of aliske poisoning; besides, the horse is in a sort of general run down condition. What shall I do for him? J. C., Shepherd, Mich.—It is rather suspicious to find a young horse suffering from sore eyes and unusual to find the eyes poisoned by aliske. Apply a saturated solution of borac acid with 4 ozs. of extract of witch hazel added to each pint of the solution. These applications should be made to eyes every day, or even twice a day.

Tetanus (lock jaw).—A neighbor of mine had a 3-year-old colt that took sick; his Vet. diagnosed it as a case of lock jaw and advised destroying the colt as he thought it had no chance to recover; then he called another Vet. who took the colt a distance of seven miles to his hospital, did all he could for it, but the colt died in two days. This colt had received two different wounds lately which the Vets. thought might have been the point of infection. W. M., Coral, Mich.—Tetanus is always the result of germ infection and the germ of tetanus resides in fertile soil, manure and dust and enters the body by way of wounds, especially those that are on lower part of body. These germs after entering the blood produce a poisonous toxin which acts on the nerve centers, causing extensive spasmodic contraction of the body muscles. Lock jaw may result without the animal being wounded. Treatment in such cases is not very satisfactory.

Torpid Glands—Indigestion—Stocking.—I have two colts two years old, both thin, running out during the day and stabled at night; both of their legs stock and one of them is with foal. I received so much good advice thru the Michigan Farmer that I think you can tell me what to do to make my colts well. A. G., Morley, Mich.—Your colts are in need of a good tonic and remedy that will act upon the glands of body. Have your druggist mix equal parts powdered sulphate iron, ground gentian, ginger, rosin, fenugreek and bicarbonate soda and give each colt a tablespoonful or two at a dose in feed three times a day. Salt them well and groom them daily.

Sore Neck.—My three-year-old mare is troubled with a sore neck; there appears to be three or four pipes in it. Our local Vet. has been treating her for some time with poor success. H. A. S., Manton, Mich.—Perhaps it will be necessary to do some cutting in order to obtain proper drainage; if so don't hesitate to use the knife. Apply peroxide-hydrogen full strength, then apply one part bichloride mercury and 100 parts water for a few days, then apply equal parts powdered alum, oxide of zinc and tannic acid. The horse should be rested until the neck heals.

Atrophy Following Azoturia.—I have a valuable 7-year-old horse that had azoturia last August; since then the large muscles of his hip and thigh have wasted away so much that he gives down in that quarter every step he takes, indicating weakness. I have applied liniments which have slightly blistered, but have that they did not help much. In conclusion I might say that the horse is fleshy. A. C. A., Walled Lake, Michigan.—Recovery in such cases I have always found comes slow and gradual. I call to mind many cases which I have had in my practice that have taken almost twelve months to recover, but finally got well and remained well. I have obtained fully as good results from stimulating liniments as from blisters. Apply equal parts tincture cantharides, turpentine, aqua ammonia and sweet oil lightly to atrophied muscles every two or three days and feed him oats for his grain ration and some vegetables with his fodder. A little walking exercise twice a day will assist in reproducing the wasted muscles.



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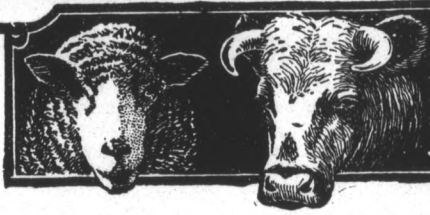
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Animals cannot fatten and thrive when they have worms. These parasites eat the feed that should go to nourish the animal. Get rid of the worms—Sal-Vet kills worms. It will put your stock in prime condition and keep them immune from parasitic infection.

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THE DAIRY

CONDUCTED BY COLON C. LILLIE.

WHAT DAIRYING HAS DONE FOR THE FARMERS OF LIVINGSTON COUNTY.

It is now several years since farmers of Livingston county began to awaken to the fact that if they wished to increase, or even to maintain the fertility of their farms they must make a change in their mode of farming and to this end they began to substitute stock raising for grain raising, but while this was one step in advance they yet realized that it was a slow way of increasing the fertility of their farms for they were still selling the fertility in the soil in the form of live stock which, tho not so rapidly as grain growing, was nevertheless depleting their farms of soil fertility.

Up to this time dairying had been carried on only as a side issue, only enough cows being kept to supply the family with milk and butter, with perhaps a few pounds of the latter to spare occasionally. Early in the 90's a condensed milk factory was established in the county and from this time dairying began to be looked upon as a business in which there was not only a direct profit but farmers began to realize that dairying was the one way by which they could increase the fertility of their farms.

More cows began to be kept on the farms and less grain was raised and the effect soon became noticeable in the larger yields on the majority of farms where this course was being pursued. As the condensary paid for milk by the hundred weight farmers began to realize that in order to get the most profit from dairying it would be necessary for them to keep cows that would produce more milk than those that were being kept, and, as before stated, milk being bot by the hundred weight they naturally began breeding to a heavier milk-producing breed than the Durhams which they were then keeping. The Holstein-Friesian breed became more popular on account of their being capable of producing more milk than other breeds and the breeding of Holstein cattle was taken up by a few farmers as a business until at present there are more herds of pure-bred Holstein-Friesian cattle in Livingston county than in any other county in the United States. In fact, Livingston county has been justly named the "home of Holstein-Friesian cattle." The breeding of Holstein cattle has not only benefited the farmers on account of their being capable of producing more milk than other breeds, but with the concentration of their efforts in this direction they have built up a reputation that has spread all over the country until buyers from other states make regular trips to this county for the purpose of buying Holstein cattle to ship to the other states, realizing that it is much easier to pick up a carload in a community where the breed is so well represented. Buyers from outside are numerous. As a result of this competition breeders secure better prices for their surplus stock than would otherwise be possible. As dairying became more popular, cheese factories and creameries came and today sees very few farmers in this section engaged in the business of breeding beef cattle. While Holstein cattle have proven so profitable in Livingston county it is only fair to say that it has been on account of local conditions; other breeds would undoubtedly be found more profitable under different conditions.

The above has only been cited to show what co-operation will do in the stock-breeding business. No matter what breed is selected farmers of a community should co-operate with each other, for where a community once gains the reputation of raising a certain breed of cattle, outside buyers will naturally be attracted to that place because they will be to less expense in securing what they want and then they will have more animals to select from. Co-operation in stock breeding has other advantages also, one of which is that where several farmers in a neighborhood are breeding the same kind of stock they can co-operate in buying a sire to head their herds and with their combined means are able to secure a much better animal than would be possible were they to buy their sires individually. Since dairying has become so popular in this county the farms have gradually grown more productive, larger crops being raised and, as milk is the one thing sought for, farmers are buying more of the concentrated grain feeds on the market, thereby adding much fertility until land that 10

or 12 years ago was selling for from \$40 to \$50 per acre is today bringing from 30 to 40 per cent more per acre.

Now, if co-operation can do so much for the farmers of a community it would seem policy for farmers to put aside personal prejudices and co-operate with each other even the their personal tastes could not always be catered to, realizing that in co-operation lies their success.

Livingston Co.

C. C. O.

HEREDITY AND ENVIRONMENT.

To what extent the phenomenal yields of milk and production of butter-fat from some modern dairy cows of all the exclusive dairy breeds is due to heredity, and how much to environment, is a question that probably all will never agree on. Did the power to produce such enormous yields as has been produced by Colantha 4th's Johanna, Jacoba Irene, Dolly Dimple and other great dairy cows come from inherited qualities of their ancestors, or is it largely brot about by development, by the feed and the care which the animal receives. If the quality which enables these cows to produce such phenomenal yields is inherited, why cannot it, to a large extent, be transmitted to their offspring? Has it ever been, and will it ever be so transmitted? My opinion is that this excess above the normal production is largely due to feed and care, environments, while the power to produce milk is a breed inheritance that has been brot about by years and years of selection and careful feeding. To produce milk abundantly and economically is a fixed factor of the race. Now this, however, to a large extent is in every individual of the breed, but it must be developed. I think the same argument will hold with other classes of animals for instance, trotting horses. I do not believe that anybody will argue that Dan Patch inherited all of his power to pace in less than two minutes, or that Nancy Hanks, or any other of the wonderful performing trotting horses inherited all of their power over and above what is ordinarily inherited by the race. But a large part of that is acquired power brot about by congenial environment, by skill in the hands of a trainer from infancy. And so this power to give such enormous quantities of milk in excess of the normal quantity produced by the race of dairy cows is largely an acquired ability. It has largely been developed by skill in the feeder. This power will not be transmitted, to any such degree as those cows possess it, to their progeny and we should not expect it. The ordinary milk-producing power of the breed or race will be transmitted to them the same as to other individuals, perhaps a little more, but the phenomenal yield will not be transmitted, and I am of the opinion that economical production in the future will be the result of skill in development, rather than skill in breeding. There is more opportunity for the average man to bring about satisfactory yields in his herd thru development than thru breeding. It is an intricate problem that only a few, if any, understand. The breed characteristics of, say for instance, the four great dairy breeds, Jerseys, Guernseys, Holsteins and Ayrshires, are so firmly fixed in the race that they will be reproduced in the offspring, almost invariably. By careful feeding and selection, and surrounded by good environment, the inherited qualities can be developed to a considerable extent.

WEIGHT OF SILAGE.

What is your estimate of the number of tons my silo will hold? It is 38 ft. high, 14 ft. in diameter. It was filled within about three feet of the top Oct. 1, with a good corn and has settled and been fed from, so there is 28 feet left.

Hillsdale Co.

G. F. R.

The accurate weight of corn silage in the silo is difficult to estimate. In King's Physics of Agriculture, a table is given showing the weight of a cubic foot of silage at different depths and in different heights of silos. Of course, the deeper a silo is, the more the ensilage is pressed together at the bottom and consequently the more a cubic foot of ensilage there will weigh. Also, there is given in this table the mean average weight of a cubic foot of silage for silos of different depths two days after filling. If your silo is 38 feet high, I estimate that two days after filling there would be about 30 or 32 feet of ensilage and the average weight of ensilage according to the table referred to, would be about forty pounds per cubic foot. The silo now would contain about 100 tons of corn silage, approximately. This would probably be not far out of the way.

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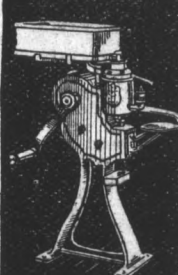
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Holds Grand Prize

MISTAKES IN FEEDING COWS.

A great many farmers and dairymen make mistakes in feeding their cows, both before and after calving. The too common practice is not to feed the cow any grain for two or three months before she freshens. In fact, I used to do this myself because I was afraid of milk fever and hated to have a cow get in anything like a decent condition before she freshened. Since, however, I have learned to control and prevent milk fever, I have no fears in this direction and the grain is not withheld from the cow at all. My belief is that when the cow is deprived of grain for two or three months prior to parturition, that what you save in the way of grain, you lose in the proper development of the calf. The cow herself, of course, does not need so much food as if she was giving milk. But, while not making milk to draw upon the resources of the food, she is taking care of a rapidly developing fetus which requires more and more nutriment from her the nearer we get to parturition. Consequently the cow should be well fed. A ration without grain is too carbonaceous in character and is not good food for the development of the calf. We would not be surprised if the calf is unthrifty when dropped, or if it is not a good feeder later on. I think a cow prior to parturition ought to have from two to four pounds of grain a day in connection with what roughage she wants.

Another mistake is made in feeding the cow too much grain immediately after calving. Where the cow has been fed a fairly liberal ration just prior to parturition, there isn't as much danger of over-feeding after calving. The mistake usually made is in trying to get the cow up to her full flow of milk too soon. We, many of us, do not consider properly enough that the cow is weak after dropping the calf and that she ought not to be fed a full ration for at least two weeks. If the cow has been having three or four pounds of grain per day prior to parturition, I would cut it down to one-half that amount for the first few days and then gradually increase it so as to get her to a full flow of milk two or three weeks afterward. She ought not to be fed a full ration of grain under three or four weeks. In this way we get by this critical period without impaired digestion, with a gradual increase of milk which will not be subject to sudden shrinkage from indigestion or other cause. I am positive we will get more out of the cow and save her energies better than in any other way. The grain ration of the cow directly after calving ought to be a little different, not quite so hearty as the food later on. It would be foolish to feed a cow cottonseed meal and oil meal directly after calving. I would prefer to feed them ground oats or bran. Bran is better than the ground oats. The two could be mixed together. For the first feed or two it would be an excellent idea to have it in the form of a bran mash, which satisfies the cow, soothes the membranes of the stomach and puts her in good condition so far as digestion is concerned, for splendid work later on. A little fussing with the cow for a few days after she comes fresh pays well.

GRAIN RATION WITH CORN STOVER AND CLOVER HAY.

Please tell me how to make the cheapest balanced ration out of the following feeds for cows. Have my own corn and oats, worth respectively 60c and 45c per bu. Oil meal is quoted at \$32 per ton; cottonseed meal, \$35 per ton; bran, \$23 per ton; buckwheat middlings, \$25 per ton. Have corn stover and clover hay for roughage.

Van Buren Co.

M. B.

If you wish to feed your own corn and oats, I would mix corn, oats, oil meal and buckwheat middlings equal parts by weight. Then you can feed as many pounds per day to each cow as she yields butter-fat in a week, or feed one pound of the grain mixture to every three or four pounds of milk given by the cow. These are rules that are practiced by some of the very best dairymen. While it is a pretty liberal feeding of grain, if you have good dairy cows it will pay.

Personally, I would sell the oats and buy some of the other feeds, because I do not believe they are worth the price you quote, to cows. If I sold the oats, I would mix corn meal, bran and buckwheat middlings and oil meal in equal parts. In other words, substituting the wheat bran for the ground oats. I think it would make it a little bit cheaper feed and you would get just as good results. The reason I put in oil meal instead of cottonseed meal is because you have no

succulent food in the ration. If you had corn silage in place of the corn stover, then I think you would make a cheaper ration by substituting cottonseed meal for the oil meal.

HOW TO JUDGE COTTONSEED MEAL.

One of the best concentrated feeds on the market, when of good quality and unadulterated, is cottonseed meal, but owing to the fact that the poor article can be put upon the market so as to so nearly resemble the best as to be hard to distinguish, it is of importance that the general farmer should take the trouble to become posted.

The recent Maine Year Book treats this subject quite exhaustively, and what is here written will be based on the station's findings more than from our own experience.

They say: "All experience goes to show that fresh cottonseed meal can be safely fed to beef cattle, milch cows, and sheep." They say it should be fed in limited quantities: Two to four pounds a day with bran or silage is enough to feed a cow.

They say: "A first-class cottonseed meal should contain over 40 per cent protein, and about 9 per cent fat. It should be a light yellow color. If it is dark in color with many fine black specks, it indicates that ground hulls have been added. If it is a rusty brown color, it indicates that the meal is old or the material has at some time undergone fermentation. Such meals are not safe to use. The texture of the meal should be about the same as finely ground corn meal, and it should be practically free from cotton lint."

Tests: Lint can be discovered by sifting the meal thru a flour sieve. The lint remains in the sieve.

For lint and hulls stir a teaspoonful in half a glass of water, and let it settle. Black hulls will be at the bottom, good meal next, and lint on top. "A first-class meal should show only a few black hulls and scarcely any lint."

The say also that a good fresh meal can be judged by the taste. "A fresh meal has a very agreeable, nutty flavor not found in inferior goods. The absence of the nutty flavor and the presence of a rancid taste indicates that the meal is old."

Cottonseed meal they find runs from about 25 per cent protein to 43 per cent and they classify the grades as follows:

"A. The high grade meal, carrying 43 or more per cent protein; bright yellow in appearance, free from cotton and hull, and with a sweet, nutty flavor."

"B. A dark colored cottonseed meal, analyzing not very differently from the preceding, but made from seed that has undergone more or less fermentation."

"C. A medium grade goods which carries considerable cotton and some hull, very good in color but poor in flavor. Such meal will usually carry about 35 per cent protein."

"D. A cottonseed meal of very good appearance, with the hulls and cotton so finely ground as not to be readily detected. This class is, however, lacking in the good flavor of high grade meals. Such meal will usually carry about 25 per cent protein, and because of its good appearance is the most dangerous adulterated meal on the market."

They state the fertilizing value of good cottonseed meal to be \$29, giving as the constituents 6.8 per cent nitrogen, 2.9 per cent phosphoric acid and 1.8 per cent potash.

We had some experience feeding cottonseed this summer which substantiates the above conclusions in so far as one experiment in actual feeding can.

From one mill we had been getting a very bright, high-class meal comparable to that classed "A." Their supply ran out and we purchased some at another place, which would be comparable to class "B." The analysis was good, but the goods were dark in color, contained too much lint, and lacked woefully in milk production. From nine cows, all other conditions exactly the same, our milk dropped an average of a quart a cow a day, or about one ten-quart can on nine cows. The price of the dark colored was twenty cents a hundred lower than the best, but it was another case of where the best is much cheaper when results were considered. This last rule generally proves true.

Aside from the loss in milk, there is a corresponding loss in fertilizing value when one is unfortunate enough to get the low grade "stuff."

Maine.

D. J. RYTHER.

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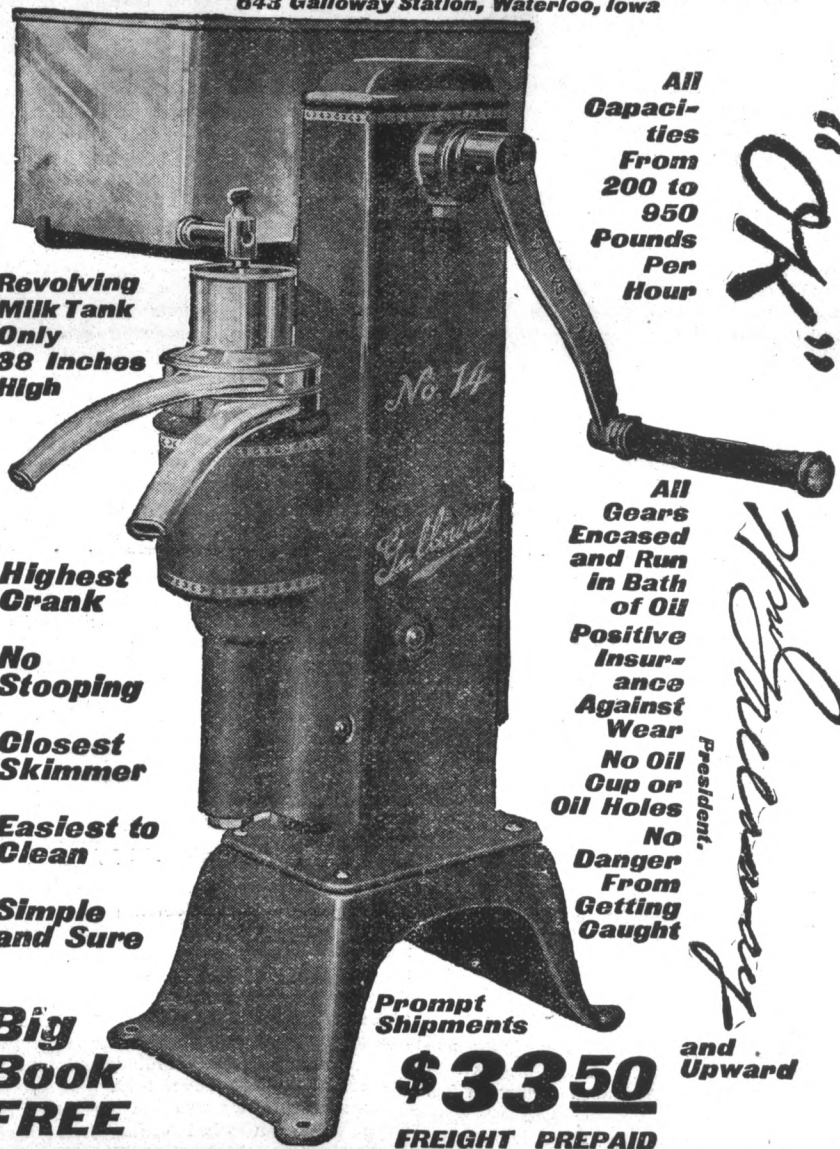
YOU can test the Galloway alongside of the highest-priced \$85 to \$110 separators sold by anybody today—to prove that my new Bath-In-Oil principle is the greatest invention in separators in history. Gears run in oil like a \$5,000.00 automobile. Dust-proof—no oil-hole. Impossible to heat or wear or put out of commission the splendid mechanism which gets you the biggest profits—all the cream—the butter-fat. All gears enclosed—handsomest machine made (as you can tell below by the illustration); milk and cream spouts high for cans; lowest revolving milk tank, only 38 inches high; so no high lifting.

The Galloway is the easiest to clean, with few parts, which come out easy and cannot get back out of place; easiest to run; high crank; low tank; no high lifting and no "back-breaking" cranking. Gets the finest cream qualities—and all of it. No lumps or churning, as Nature's true principle is followed without forcing either the milk or cream the wrong way up or down. Skims closest, in any climate or season, no

matter whether your milk is warm or cold.

This handsome machine, compact and substantial, with beautiful finish, cannot be beaten at any price. And you cannot get my new Bath-In-Oil principle on any other separator. Remember, that this is most important. It proves to you why I can afford to give you a 30 years' guarantee because I know that the parts cannot wear this out—get hot—clog—or clash and put the separator out of commission like others do where you have to be remembering to oil them all the time. The Galloway is the only separator into which you can pour oil at the top once a month from your oil jug, or can, and have it oil itself without danger of running dry or ruining it like others. This costs you nothing extra—is worth \$50.00 more than separators built the other way. Remember, that I am an actual manufacturer—not a supply house, catalog house, dealer or jobber. You get the lowest direct factory price from me every time. Write me today for my big separator catalog and let me quote you prices that will astonish you.

Wm. Galloway, President
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President,

and Upward

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

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The Lawrence Pub. Co.,
Detroit, Mich.

DETROIT, DEC. 18, 1909.

CURRENT COMMENT.

A Santa Claus in earnest Christmas. and with a thot deeper than the mere passing happiness of "Merry Christmas" is the text and picture sermon of our cover design.

Behind Christmas is not only the star of Bethlehem but also the purpose and meaning of Christianity as a moving force in the hearts of men.

Our Santa Claus is conscious of more than the transient delights of joyous surprise, the laughter, the jingling bells, the candles, the Christmas tree, the presents. He looks upon the world with larger eyes, behind which are memory and capacity for deeper observation.

Christmas is not a celebration only. It is a mood, a state of heart, a soul influence and all the effort it invokes is worse than lost, if it extends only from the beginning of preparation therefor, to the close of the day's experiences.

In his picture, our artist seems to say. "Let us have an American type of Santa Claus."

Let us have not a mere Kris Kringle, a Gothic or Lapland sprite nor a mere laughing wood nymph from the snow topped Norway pines but a figure of heart and soul who thinks and sympathizes as well as laughs; one to whom the helplessness and innocence of infancy are symbolized in the manger cradle from which came the Man of Galilee, carrying in his bosom the sorrows of humanity; who devoted himself utterly to doing good and established, for all time, the motive criterion of human life.

Sweetly the old, old story,
Treasured in song and art
The babe in the manger-cradle
Appeals to the gentle heart.

And the life that followed after,
Filled with kindly word and deed,
Spoke compassion unto labor,
And confusion gave to greed,

And lifted up the fallen
And brot the haughty down
Gave a healing tear to sorrow
And to truth a victor's crown.

Many and diverse and surprising are the presents our Santa Claus brings and myriad joys and happiness follow in his train.

But Santa can not be infallible.

Some of the burdens of the Christmas time are grievous to bear and many will receive who may not deserve according

to their gifts, and many more who deserve may have no gifts come to them.

Our Santa holds out a gift that is extended to all, and truly "a good and perfect gift."

"Why not the Christmas spirit the year around?"

If we should all accept heartily that gift and all endeavor earnestly to enter fully into its enjoyment, how rich indeed would be its blessing to all humanity.

And the element of "surprise" would not be wanting either.

May we not let our Santa Claus quote from the "Christmas Builders"—

"Christmas is a spiritual creation and belongs to the kingdom of the heart."

It is constructed by the angels of the heart of a child. If it then be a mood, it can be extended over a week, a month, a year, a life time. * * * If you confine it to a day, you miss the meaning of it.

"If you try to cram it into twenty-four hours, you crush it and lose the essence of it. The Christmas spirit is the only spirit by which men and women really live."

In this issue we are starting a series of articles on "The Business Side of Farming."

These articles are written by a practical farmer, who has also attained success in other lines of business enterprise and is thus competent to touch upon our comparative shortcomings as a class in the business methods commonly employed on the farm. Various phases of this subject will be covered in these articles, which will appear from time to time in future issues. Doubtless some of our readers will be able to throw interesting side lights on this problem, and we trust that they will feel free to submit their ideas on any phase of it which may be under discussion, to the end that the agitation of this subject may have a wholesome effect in the betterment of the business methods employed upon every farm to which the Michigan Farmer is a weekly visitor.

The question is often asked, "Who pays for the advertisements published in the farm papers?" There are all manners of answers to this question. Those who say the advertisers pay for it are right, for, of course, the advertiser pays the publisher for the space and enables him to send the paper to the readers at a low price. Those who have given the question more thot and say that the readers who patronize the advertiser pay the cost are also right, because, if the advertising did not pay, it certainly would not be continued. But that portion of the readers of any paper who do not make a practice of patronizing the advertisers who use that paper too often think they have no interest in this proposition. It is the purpose of this comment to show them that they have an interest in it.

It is a fact that without the patronage of advertisers no good paper could be published for anywhere near its present subscription price. Practically everybody knows this and possibly some readers figure that by not patronizing the advertiser they are really getting something out of him, because thru his patronage of the paper they get it at a lower cost than would otherwise be possible. This is just as true as is the fact that a dime held close to a person's eye will obscure a dollar placed just a little further away. The reader who takes this view is losing many dollars and neglecting a valuable educational medium by not paying more attention to the advertisements in the paper which he reads. Any man who has ever answered the advertisements in his farm paper knows this. Kind reader, do you look over the advertisements in this paper regularly and answer those in which you may be most interested? If not, why not? If you have never tried it, you are certainly not competent to judge whether it would pay you or not. We know it will pay you, for many reasons. It pays every man to be as well posted as possible on prices and comparative values of every commodity which he uses in his business. It pays everybody to keep up with the progress of the times and to be posted on the improvements and inventions which in America are daily occurrences. The advertiser makes it his business to furnish you with that information. A letter or a postal card will bring catalogs which cost thousands of dollars to make and many more thousands in patient research, and careful experiment to perfect the goods advertised.

As a people we are apt to place too little value on what costs us nothing. Just stop to think that the literature which you may receive by writing to any advertiser may cost more in the preparation and publication than the books which you buy at a considerable cost. This literature may be had for the asking and yet the chances are that it will be worth more to you in knowledge gained, as well as in money saved, than any book which you might buy. Why not try? Why not look the advertisements in this paper over carefully and send your name and address to the advertisers of such articles as you may be interested in? Mention the fact that you are a reader of this paper and you will get prompt attention and fair treatment every time.

The next step will probably be that you will buy needed goods, and at prices which will save you money; but we leave that to you. In fairness to yourself, try the plan and answer some at least of the advertisements in this paper which interest you most.

This motto is frequently seen posted in a conspicuous place in business men's offices everywhere. While it has come to be a somewhat hackneyed expression, yet it is a good motto to habitually follow. Procrastination is a serious fault and one which costs most of us a degree of success which might have been attained had the habit of promptness been a more fixed characteristic of our lives. It is never a good plan to put off a thing that we ought to do, yet a good many people do so, especially the little things, yet the little things may be even more important than the greater ones. A great many readers of the Michigan Farmer who like the paper and are not at all in doubt as to whether they want to take it longer or not, put off renewing their subscription until they miss one or more numbers of the paper. More than likely in so doing they have missed seeing articles which would have been of particular value to them. The time for which a great many readers have subscribed, expires on January 1. The date tab on your paper will indicate whether you are one of these or not. If so, it is a good time to put the above motto in practice by renewing at once, so that all annoyances of this character will be avoided. Among those whose subscription will expire on January 1, are a large percentage of readers who have taken the paper for a few months on trial. If they have read it carefully, we believe they will want to become permanent readers of the paper.

Our long term offers of five years for \$2.00, or three years for \$1.50, are made for the benefit and convenience of the permanent reader. By taking advantage of one of these offers, a large cash saving will be made and free premiums of proportionate value may be had, the same as with a yearly subscription. The reader who has been taking the Michigan Farmer on trial should remember that he has not yet seen it at its best. During the summer season when business is pressing on the farm, we publish relatively small papers, boiling down the contents so as to get a good deal in a small space for the benefit of the busy reader. During the winter season however, we publish much larger papers and a greater variety of practical and entertaining reading. This means that for the succeeding six months, the paper will be much larger and more comprehensive in its every department than during the six months just past. There is absolutely no risk to the subscriber in the long term subscription. The Michigan Farmer is not an experiment, but an established institution whose record makes its future certain. It is stopped promptly at the expiration of the time subscribed for.

The reader who does not renew promptly will be sure to miss some numbers. It is not too early to send in your renewal if your subscription expires on January 1. If the tab on your paper is without date, or is dated "Jan." or "1Jan.0," you must renew or your paper will stop.

DO IT NOW.

HAPPENINGS OF THE WEEK.

Foreign.

King Leopold II, of Belgium, has little hope of recovery from a complication of rheumatism and other diseases. His physicians will perform an operation but with little hope of relieving the suffering monarch. The general opinion is that the King will not survive the operation, and the last sacrament has been performed.

Prosperity appears to have come to the Holy City, Jerusalem, in that a chamber of commerce was recently organized at that place, a fire department installed and a new town clock purchased.

A fire causing an estimated loss of two and one-half million dollars occurred at Veldivía, Chili, last Sunday evening. Eighteen blocks of buildings were consumed by the flames and thousands of people have been rendered homeless.

The King Edward medal established in 1907 for rewarding acts of gallantry in

saving lives in mines and quarries, has been extended by the King to include all such deeds in any industry. Members of police forces and brigades will also be included in the scope of the rewards.

Russia appears to be in a disposition to relinquish all desire for political power in Manchuria. Her minister of finance asserts that her only care is to be protected in the control of the railroad. It is believed now that the improvement of the Trans-Siberian railroad will be done by Russian capital instead of by American money as heretofore announced.

The Russian town, Volskaya, which a few weeks ago contained a population of 1,100 people, is reported to have been completely wiped out by smallpox. Lack of sanitation gave the disease full sweep when once started.

Developments in the Nicaraguan situation reached such a climax the past few days as to justify the landing of American marines from the battleships anchored along the coast. Just what effect this action will have upon the central Americans is yet to be determined. An engagement was reported between the forces under Zelaya and the revolutionists, the outcome of which has not been made public.

An investigation into the acts of officials of the Montreal Government resulted in the indictment of 14 officers who are charged with having performed acts of misfeasance.

The supreme court of Panama recently rendered a long decision refusing to grant the request of the United States government to deport one Spiller who was charged with having induced employers to leave the canal zone.

The Argentine legislature is considering the construction of an underground railroad system for Buenos Ayres.

The Russian police have during the past week made arrests of many prominent people charged with publication of seditious documents and correspondence.

National. Members of various Central American republics gathered at Mexico City last week and passed resolutions denouncing the intervention of the United States into Nicaraguan affairs.

United States district judge of the jurisdiction of Hawaii has telegraphed his resignation to President Taft.

A protest was made to the foreign department at Lisbon by the United States ministry there to the proposed treaty between Portugal and Argentine unless the same conditions are granted to America.

Fourteen men of the native constabulary of the Philippines have been sentenced to death after being convicted of the murder of Roy Libby, at Davao, Mindanao, June 6.

The records of Dr. Frederick A. Cook, who claims to have been the first white man to reach the North Pole, are now in the hands of the authorities of the University of Copenhagen.

The Twentieth Century flyer, the fastest of the New York Central trains between New York City and Chicago, collided with the rear end of a freight train at North-east, Pennsylvania, Monday night. The flyer was making 62 miles an hour at the time of the accident. Just how many were injured and killed, is not published. One report, however, stated that 20 lives had been taken and scores were injured.

The merger of the long distance telephone interests in Ohio is being forced upon the public by the United States Telephone Company charging double rates upon its lines, thus compelling patrons to use the Bell lines instead.

An injunction has been asked of the United States Supreme Court to restrain the national brick layers' union from interfering with the brick layers working upon the \$2,000,000 cathedral being constructed by a catholic society at St. Louis, Mo.

Fire destroyed nearly a block of business houses in Kalamazoo last week, resulting in a loss of property estimated at nearly \$1,000,000.

A New Orleans doctor has discovered that the disease called pellagra is being communicated thru the agency of dogs.

Two men were killed on the Chicago & Northwestern Railway by the breaking of the rail which crashed thru the bottom of the car in which the victims were riding.

Last week was one of the most disastrous in the history of lake navigation from the standpoint of lives lost and property destroyed. It is now believed that 82 perished in the wrecks of the week. The weather conditions tempted owners to prolong their season to a later date than usual and scarcely a line has escaped damage as the result.

There is little change in the switchmen's strike on the northwestern railroads. It has been hinted that arbitration would be agreed to by the parties concerned in the strike, but no verification of this statement has been received.

The board of education of Greater New York has decided to eliminate foot ball from the schools of that city owing to the large list of fatalities shown by the records of the past season.

The military commission delegated to investigate the Brownsville episode which caused so much controversy thru the country during the last national campaign, has just published its findings in which it charges the negroes of the company as being guilty of "shooting up" the village.

The large tin mill manufacturers at Bridgeport, Ohio, have determined to oppose the union men now on strike. Preparations have been completed for the importation of non-union men.

Thirty-five passengers were injured on a street car in Indianapolis last Thursday. The car was struck by a passenger train.

Virginia is erecting a monument in commemoration of the confederate soldiers who fell on the Gettysburg battlefield.

Testimony being given in the sugar fraud cases now before the federal courts, New York City, show that much of the sugar imported into this country was not weighed at all, thru which means it was possible for the sugar trust to cheat the government out of revenue.

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

A SPRING POET'S CHRISTMAS—BY HOPE LONG DeFERD.

DEAR me, how Rosamond has grown!" exclaimed Aunt May when she came to visit. "Almost as tall as her mother. 'Twont be long before she is getting married!"

"No, I 'spose not," laughed Rosamond's mamma.

Rosamond looked startled and ran suddenly away. The two sisters kept up a merry chatter of visiting until time for tea. Wanting Rosamond to help her, mamma called her. It was a cry-choked voice that answered her, and the mother ran in haste to the child's room where she found her long slim form thrown across the bed and the eleven-year-old maiden convulsed, with passionate weeping.

Mamma demanded the cause for the tears, and snuggled the quivering form up tightly. With her scarlet face, wet with hot tears, close to the mother's cheek, Rosamond said bitterly, "I don't ever want to have to get married!"

"Oh, ho, ho!" laughed mamma. "Why it will be years and years and years before you will be old enough to get married. I don't even want you to have a beau yet for years, so dry your tears and cheer up. You won't ever have to get married. You shall be a lovely old maid all your life if you want to; you can stay a little girl a long time yet and play with dolls and wear short dresses as long as you choose."

"Honest true?" anxiously asked Rosamond. Upon being reassured she gave a great sigh of relief and the world took on a look of new hope.

Poor little girl, she and mamma were alone in the world, and, not knowing a father's care, her knowledge of men, nearer than Professor Wright, the principal, and Rev. Green, the minister, and the grocery boy, was very circumscribed, and none of these was calculated to stir her matrimonial ambitions.

Freed from the awful cloud which had fallen upon her, Rosamond's spirits reacted promptly and she fell to getting supper with light steps and a lighter heart.

A few days after this incident Rosamond took on a great fondness for the big mail order catalog, and that heavy book came to open of itself at the toy department. At last one day she asked her mother to say what she thought of this plan: As long as she was to be a little girl a good many years yet, she would like to get a great big doll. Then she could sew for it, and while she was doing that she would be learning to be a dress-maker, and as soon as she was thru school she could be earning money. All her old dolls were worn out and so small that one had terribly trying times to put sleeves in their waists, and here was a beauty, with real hair and eyelashes, and kid body, and joints, and "big as a real baby."

Mamma was interested and looked appreciatingly at the description, but she looked doubtful when she read the price. I am afraid, dear, that it is about all mother can do to get things for her dolly girl, let alone buying such a high-priced doll."

"Oh, I know, mamma. I don't want you to buy it. I will earn the money myself, and five dollars isn't so very much."

"Not much when you come to spend it but so awfully big when you come to earn it!"

"Well, I have a plan. I can work and earn the money," she said, somewhat dreamily, for it must be confessed that her ideas of how the money was to be earned were very hazy. "I could charge you so much for doing dishes, and so much for everything I do, and it would soon count up."

"Yes, but don't you see that really the money would come from me after all?"

Rosamond's disappointment was so evident that her mother hurried to tell her not to give up but to keep up good courage and perhaps it would come someday.

Rosamond said no more about it, but in her dreams at night and air castles by day she saw the magnificent big doll. One day in the early spring, when the

yes. I know all about it. Only a touch of 'spring poetry.'"

"Poetry, oh dear me. Is that how it feels to be a poet?"

"Yes, I think most people feel poetry but only a few can find the words to tell their feelings."

"O, do you know that if I could only

Mamma started out on quite a lecture on verse making. Not that she knew much about it herself but, after a day of lonesomeness, it is good to talk to almost anyone about almost anything.

"You must make the end words sound alike and that is called 'rhyme.' Then each line has a certain number of groups of syllables which makes it have a kind of tune. That is rhythm. See, you take this: 'Mary had a little lamb' and say it in little bunches of syllables—Ma-ry—had a—lit-tle—lamb."

Rosamond caught the idea and promptly determined to become a poet.

For days she reveled in an ambition altogether artistic—art for art's sake—but one day, born of her cherished ambition to own the big doll, and hopeless, nearly, of finding any way to earn its price, a sordid hope seized her. If once she could write those lovely thots and "send them in" as mamma did her stories, why shouldn't she some day get a letter addressed to herself and containing a nice courteous statement and a nicer check? She could, and would, and the efforts which art impelled were doubled by a tangible aim.

A new situation confronted her. Should she tell mamma? Never in all her life had she held a secret, but 'twould be so fine to surprise her. And she divided herself between imagining her mother's pleasure at learning of her brilliant daughter's success, and trying to appear perfectly natural with such a load on her mind.

The days wore on and Rosamond's writing tablets wore out. She grew quite silent and mamma noted that her standings were dropping off. She was sleeping badly and mamma began to question anxiously.

"Yes, yes, I am all right; honestly true, I'm not sick. No, I'm not the least bit hungry." And she seized upon the big dictionary and searched feverishly, but with evident disappointment. She began her music lesson absent-mindedly. In the middle of her practice she jumped from the stool and flew up to her room, and when she reappeared was in a state of exuberant joy. Her moods were most unexplainable.

It was sweeping day, and back in the closet, hidden in a corner, was a paste-board box which, when the cover fell off revealed a mass of papers. Among them were a number tied together like a booklet. The title page bore the inscription

POEMS

BY

ROSAMOND GREEN.

The next the dedication

"TO MY SWEET GERALDINE."

Upon the first page was a neatly drawn wreath surrounding a poem of two verses entitled "Sunrise and Sunset." It began with a plain statement that

"Sunrise is a lovely scene."

This was followed by the declaration that

"It makes all sight keen," the rhyme all right, if the meaning was somewhat hidden. The next verse declared

"Sunset is a glorious sight

And it always comes at night."

A fact which no one would dare dispute. The next page showed a longer effort entitled

Signs.

When the birds begin to sing
That's the sign of spring.

When the swallow builds its nest
Then is summer weather's best.

When the leaves begin to drop
Then the summer'll stop.

When the trees are bare
Autumn's no longer there.

CHRISTMAS EVE

BY ALONZO RICE.

Along the cities of the plain the darkness settled down,
And starry night began to weave her fair and shining crown;
But one of all that starry host was brighter than the rest,
And shone with splendid beauty that the fainter ones confessed.
The Wise Men of the East beheld, and followed it from far,
'Till over peaceful Bethlehem stood still the wondrous star
That shone within the dome above to guide them where He lay,
Whose kindly love still reaches us, thru ages far away;
And so this eve, by faith, I see that fair and shining light,
The dearest in the coronal upon the brow of night!

Across the sweetly sleeping hills and down the quiet glen,
I hear the message now of "Peace on earth, good will to men,"
And thru the song that starry choir is singing, soft and clear,
Is drifting up the chime of bells on Santa Claus' deer;
For all the world is hushed to rest and wrapped in slumber deep,
And on the child's expectant eyes falls soft the down of sleep,
And only in the land of dreams he hears the merry sound
That tells him surely Santa Claus is on his yearly round.

But hanging from the mantel where the fading embers glow,
Is seen a pair of tiny socks, well darned at heel and toe;
A note for Santa Claus is there upon the mantel shelf,
Unseen by any other but a poet—like myself.

"December," it was dated, "twenty-second, nineteen-nine.

Dear Sir:—

The mail will soon be closed; excuse this haste of mine,
And bring to me the things that now I ask you for, and say
Do not forget the little boy that lives across the way!

"I want a sorrel hobby-horse, with mane and tail just so,
A saddle and a bridle and a whip to make him go;
I want a monkey on a string to slide like it was greased,
I want a sweet canary that will sing when it is squeezed;
I want a top—the humming kind—that plays a tune or two,
America, Kentucky Home, or Sweet Marie will do;
And when you bring my presents 'round on Christmas eve, I pray,
Do not forget the little boy that lives across the way!"

"So harness up your reindeers, and your furry cap now don,
And I shall close my letter.

From Your Great Admirer,

JOHN.

P. S.—I've changed my mind about the horse; I want an iron grey,
And don't forget the little boy that lives across the way!"

I know in very truthfulness it would not do at all
To let him know his Santa Claus was even six feet tall;
A gruff old bachelor, to boot, and plodding hereabout;
So I must walk upon tiptoe or he will find me out!

His wishes are all laws to me; his dictates I'll obey,
And not forget his little friend that lives across the way.
The horse is here, the monkey, and the singing top and all;
I fancy I can hear his voice resounding in the hall.
He will be happy when he wakes; for me, can skies be dim,
To think I am his patron saint, beloved—unknown by him!

willows by the river were just beginning to turn yellow and the brown grass in the fence corners was turning faintly green, and the bird songs and gay sunlight filled the air, Rosamond's soul thrilled with the sense of it all, and at the end of the walk homeward she cried rapturously. "Oh, mamma! how lovely it is! I can't tell you how it makes me feel; something inside just sings, and I feel all swelled up. I want to say something and don't know any words. Was it so lovely last spring? What makes me feel so?"

Mamma laughed appreciatively. "Yes, match somehow, don't they?"

write down the beautiful thots that come to me—"

"You'd be a spring poet," laughed mamma.

"Why couldn't I?" gasped Rosamond quickly. "Poets get paid, don't they?"

"Possibly, but not always in money. No one ever dreams lovely dreams in vain, or writes their beautiful thots for others without having something as 'pay.'"

"Don't you 'spose I could?"

"Why don't you try?" said mamma.

"How does it go. The verses have to

Now tell me which one is best
And then I'll let you rest.
The next was an appeal to
Violet.
Violet, oh violet blue
How I love you.
(Others do too).

The robins are here,
The skies are clear.
Where are you, Dear?

The next was clearly suggested by
Whittier:

The Last Snow Storm.

The snow had begun in the dawning
And was trying, O silently trying,
To cover the old canvas awning,
While the chilly wind kept sighing.

Each effort seemed to grow more laborious, and scattering sheets showed many attempts and subsequent failures to voice the spirit of inspiration. Some reached musically into the second line, then broke off for want of a word to rhyme. In some the theme seemed to wear itself out in one.

Rosamond's mother read them all thru with smiles and tears, for she read much more than Rosamond had written. The language Mother Nature speaks to her listening little ones thru the flowers, the stars, the moonlight, the rain and the storm all was understood again as in her own childhood, and she smiled as she recalled her own literary dreams of girlhood.

As she replaced the papers carefully, sighing a little at the thought that she had not been allowed to share the poet's dreams, she thought wistfully of other dreams she knew she had not been able to make come true, and felt a pang of sadness as she thought of Rosamond's ungratified longing for the big doll. But she came back to the same conclusion—that she simply could not afford it.

One day, not long after, as her mind went back to Rosamond's poetry, an idea came to her and she went about her

work with a new haste to get it finished in time for some pleasant task.

When she was at liberty she went to Rosamond's box and, choosing some of the best, she used them as illustrations in an article upon "The Poetry of Childhood," which she prepared with a delighted interest.

The article was duly mailed to a good magazine and a few weeks brought a note of its acceptance. Shortly before Christmas a letter containing the statement and check came.

Its arrival was a two-fold delight to the brave little woman who wrote it, since it was her first effort to gain financial recognition, and the sum was generous enough to pay for the coveted Geraldine, with some left to stock a generous work-box with sewing accessories and an elaborate supply of short lengths of muslin, lawn, calico, and gingham, and even silk—enough to assure the beautiful Geraldine a magnificent wardrobe.

After Rosamond's first outburst of joy over her gift, she cried regretfully, "But, mamma, you should not have afforded it. I was going to buy it myself."

"How?" asked mamma with amusement.

Rosamond colored and hesitated. "I know you will think it foolish, but you remember what you said about poetry? Well, I was trying—" But the thought was too presumptuous to be named and she stopped in confusion.

"Would you believe it if I told you that that was just what you did?"

What the explanation failed to do in convincing the small author the reading of the article did, and her wonder and delight were unbounded.

The best part of the story is that the article which gave Geraldine to her mother introduced its writer to a new world of usefulness and profit, since the check was followed by a request for other work for the magazine, and she soon became a valued contributor.

THE TRUE CHRISTMAS.

BY DELLA F. HARMON.

The spirit of Christmas time is once again abroad in the land, having superseded the Thanksgiving frame of mind with the usual suddenness of transition, and the ceremonial of gratitude for the bounties and benefits of a twelvemonth past is already almost forgotten in the preparatory bustle of the holiday to come.

That the true Christmas atmosphere of "Peace on earth, good will to men" is still a living force, we must not for a moment permit ourselves to doubt, the modern pessimists' gloomy gospel to the contrary notwithstanding; but that the pure and glorious light that first shone nineteen hundred years ago across the plains of Bethlehem of Judea is not without an intermingling of rays less clear and fair is a too obvious fact of the age.

When we can hear, as did the writer of this article recently, "Oh, I do so dread Christmas this year! My Christmas debts were never so numerous," or, "I can't see why Mrs. Blank sent me a present last Christmas. I never gave her anything, but now, of course, I must, altho I really cannot afford it;" when the funny-folk of the newspaper world have come to look to the wholesale perfunctory exchange of gifts as their inspiration for all too trite sayings like this from "Puck": "Swapping" horses is about played out but the swapping of Christmas presents goes on forever;" when the congestion of the holiday trade is a serious fact to be reckoned with; when, as last year in New York, a church society opened a "bureau"—with a small fee in connection—for the exchange of duplicate, undesired or superfluous Christmas gifts; when Christmas giving has come to be regarded by many as so much of a burden, physically and financially, as to render the approach of the season a time of dread instead of delight, surely it is time to look carefully to the preservation of the true and beautiful significance of the world-wide celebration of "glad tidings of great joy."

Good things are "ketchin'" as well as bad ones, and so, if the intelligence of the better elements of our civilization awakens—as sooner or later it always does awaken, thank heaven, to any dangerous or undesirable public tendency—to the fact that the vital spirit of the Great Birthday is in peril of loss, our return to the earlier, truer, simpler enjoyment of its privileges is only a question of time.

By all means let us bring always our gold and frankincense and myrrh, but let us not forget at whose feet our gifts are really to be laid.

Let us repudiate any feeling of obligation to give to those who have given to us because they did so, and bestow our gifts as was required of those of long ago, "hoping for nothing in return," regarding our Christmas gift-bearing in its fundamental significance—as a sacrament in commemoration of the Supreme Gift of all the centuries—and striving to keep, for ourselves and others, that real meaning uppermost in heart and deed.

When we receive a token of good will in the universal gift-bringing, let us avoid even the mental assumption that the donor has cast bread upon the waters with a "string" attached to insure its return, and when we give let us bestow no gift with the least doubt as to the one "more blessed" in the transaction.

Let love, always love, be the impelling cause of our tributes of the sacred season, whether it be affection for the individual or the greater, broader love that includes all humanity and makes of our Christmas-tide a force for uplift of thought and word and life, the sweet savor of which shall extend to the uttermost parts of the civilized earth.

While, as noted at the outset, thousands all over the world still are happy in the possession of the Christmas spirit, pure and undefiled, the widespread tendency to forget or ignore true values and real meanings cannot be overlooked. The trail of the insidious superficiality of our day and age is over everything, and even our highest ideals of Christian civilization are not safe from its defilement.

Eternal vigilance, as in all good things, is the price of the preservation of the true spirit of this annual world-festival of "peace and good will" and "the giving of good gifts," this rejoicing-time of all the nations together.

A DUAL MIND.

BY EUGENE C. DOLSON.

His life-work fixed and clear in view,
Yet still a dreamer—one who seems
To hold his course at balance true
Between reality and dreams.

Michigan Farmer's Club List.

For the benefit and convenience of our subscribers we have arranged the following list of papers on which we can save them money. Besides the money, they save the trouble and expense of sending each order separately.

EXPLANATION—The first column is the regular subscription price of the other papers. The second column gives our price for a year's subscription to both the other paper and Michigan Farmer. The third column gives the price at which the other paper may be added when three or more are ordered. Example: We will send the Michigan Farmer and Detroit Semi-Weekly Journal for \$1.35. If, for instance, McCall's Magazine also is wanted add it at 40c making total \$1.75. Any number of papers may be added at third column price if they are for a subscriber to the Michigan Farmer.

If you want the MICHIGAN FARMER THREE YEARS and the other papers one year add 75c to the second column price. For the Michigan Farmer 5 years add \$1.25. We do not send samples of other papers. Address the publishers direct.

Send all orders to the Michigan Farmer or through our agents.

We will take your order for any publication you want whether listed or not. Write for rates.

NOTE—So long as a subscriber is on our list for one or more years he may order at any time any publication at third column price. So that a three or five-year subscriber does not lose the advantage of the reduced price if he wants any other paper next year or the year after.

Subscriptions ordered to Canada require postage. Write for rates unless postage is known, in that case include with order. Postage on Michigan Farmer alone to Canada is 1 cent per week.

NAME OF PUBLICATION.	See Explanation above.	\$	\$
Daily, (6 a Week.)			
Journal, Detroit, Mich on rural route	2 50	1 25	2 55
" " " " off " "	5 00	3 00	4 75
Times, Detroit	2 00	1 50	1 75
News and Rapids, Mich.	2 00	2 00	1 60
Courier-Herald, Saginaw, Mich., (Inc. Sunday) on R. R.	2 50	2 30	1 60
News, Cleveland, Ohio	2 00	2 00	1 85
Tribune, Bay City, Mich.	2 00	2 50	1 85
News-Bee, Toledo, Ohio	2 00	2 25	1 65
Tri-Weekly, (3 a Week.)			
World, New York, (3 a week)	1 00	1 45	75
Semi-Weekly, (2 a Week.)			
Journal, Detroit, Mich.	1 00	1 35	75
Weekly Newspapers and Current Comment.			
Blade, Toledo, Ohio	1 00	1 05	85
Commoner, Wm J. Bryan, Editor, Lincoln, Neb.	1 00	1 35	65
Harper's Weekly, N. Y.	4 00	4 00	3 50
Cattle, Sheep, Swine, Poultry, etc.			
American Poultry Journal, Chicago (m)	50	1 05	35
American Poultry Advocate, Syracuse, N. Y. (m)	50	1 05	35
American Sheep Breeder, Chicago (m)	1 00	1 50	80
American Swineherd, Chicago, (m)	50	1 05	35
Farm Poultry Boston, Mass. (s-m)	50	1 05	35
Gleanings in Bee Culture, Medina, O. (s-m)	1 00	1 45	75
Hoard's Dairyman, Fort Atkinson, Wis. (w)	1 00	1 45	1 00
Horse World, Buffalo, N. Y. (w)	2 00	2 00	1 60
Horseman, Chicago, (m)	2 00	2 30	1 60
Jersey Bulletin, Indianapolis, Ind. (w)	1 00	1 60	1 00
Kimball's Dairy Farmer, Waterloo, Ia. (s-m)	40	1 05	35
Poultry Keeper, Quincy, Ill. (m)	50	1 05	35
Poultry Success, Springfield, O. (m)	50	1 05	35
Reliable Poultry Journal, Quincy, Ill. (m)	50	1 05	35
Swine Breeders' Journal, Indianapolis, Ind., (s-m)	50	1 05	35
Popular Magazines.			
American Magazine, (m)	1 00	1 50	80
Cosmopolitan, N. Y. (m)	1 00	1 50	1 00
Century Magazine, N. Y. (m)	4 00	4 30	3 85
Country Life in America, N. Y. (m)	4 00	4 40	4 00
Etude, Philadelphia, Pa. (m)	1 50	1 70	1 00
Garden Magazine, N. Y. (m)	1 00	1 45	75
Good Health, Battle Creek, Mich. (m)	1 00	1 20	75
Good Literature, N. Y. (m)	35	1 00	80
Hampton's Magazine, N. Y. (m)	1 50	1 75	1 00
Harper's Magazine, N. Y. (m)	4 00	4 00	3 50
Metropolitan Magazine, N. Y. (m)	1 50	1 75	1 00
Mechanical Digest Grand Rapids (m)	50	85	25
McClure's Magazine, N. Y. (m)	1 50	1 80	1 50
Musicalian, Boston, Mass. (m)	1 50	1 80	1 10
Outing Magazine, N. Y. (m)	3 00	3 00	3 00
People's Home Journal, N. Y. (m)	85	1 00	1 50
Pearson's Magazine, New York (m)	1 50	1 50	1 50
Red Book Magazine, Chicago, Ill. (m)	1 50	1 95	1 25
Suburban Life, N. Y. (m)	3 00	3 05	3 00
Success, N. Y. (m)	1 00	1 50	80
World To-Day, Chicago Ill. (m)	1 50	1 50	1 00
Ladies' or Household.			
Designer, N. Y. (m)	75	1 30	60
Everyday Housekeeping, Salem, Mass. (m)	50	1 05	35
Harper's Bazar, N. Y. (m)	1 00	1 50	1 00
Housewife, N. Y. (m)	35	1 00	30
McCall's Magazine, N. Y. (m)	50	1 10	40
Mother's Mag., Elgin, Ill. (m)	50	1 10	50
Modern Presclia, Boston, Mass. (m)	75	1 30	60
Pictorial Review N. Y. (m)	1 00	1 50	80
Woman's Home Companion, N. Y.	1 25	1 75	1 25
Religious and Juvenile.			
American Boy, Detroit, Mich. (m)	1 00	1 25	75
Little Folks, Salem, Mass. (m)	1 00	1 50	1 00
Sunday School Times, Philadelphia, Pa. (w)	1 00	1 55	85
St. Nicholas, N. Y. (w)	3 00	3 30	2 85
Young People's Weekly, Elgin, Ill. (w)	75	1 20	75
Youth's Companion, Boston, Mass. (w) (new or old)	1 75	2 50	1 75

(w—weekly; m—monthly; s-m—semi-monthly.)

FREE PREMIUMS.

Those subscribing for the Michigan Farmer in combination with other papers are allowed premiums just the same as if the order was for the Michigan Farmer alone. One premium only for every Michigan Farmer order. Orders for other papers alone will receive no premium under any circumstances.

"We can't get along without the Michigan Farmer. It is a great help to us. I think every farmer should take it."—Mrs. Harriet Smith, St. Ignace, Mich.

A Mutual Benefit.

About two years ago I bot one of your sewing machines and it has proven satisfactory. I would not be without it, and would have no other, so I got Mrs. Wm. Gaudy to buy one from you, a \$19.00 one. Yours very truly,

MRS. WM. BARG,
Attica, Mich.

Satisfied Poultry Advertiser.

A. Franklin Smith, Ann Arbor, Mich., who has been advertising poultry, in renewing his order for 1910 says that "his advertisement in the Michigan Farmer is one of the best paying ads he has."

The Cowherd's Harp.

By Mrs. M. B. Randolph.

Silent his harp; the roaring wind
Shook th' board where th' boar's head
grinned;
But the Yule-log lighted the sheathed
swords
And the wassail bowl of th' feasting
lords.

"Churl," cried the host, "why standest
mute?
Strike the chords of thy sullen lute!
Join my minstrels in songs of cheer.
Yule-tide cometh but once a year.

"Sing us a song of sea and gale,
Of pirate ship and viking hale,
Of horse and lance, and chase, and tilt,
And war when swords are red to th'
hilt."

"Strange, my lord, most strange the case;
I love the ballad of battle and chase,
Yet no song can sing on those stirring
themes,
Nor strike my harp to strains of my
dreams."

"Hence from the hall, then, cowherd, go!
Back to th' creatures that bellow and
low!
Come no more to darken my feasts;
Live thy life with mindless beasts!"

Where wide-horned cattle quietly stood,
Mong dried grasses chewing the cud,
He made his bed; their soft, somber eyes
Noting his tears in dumb surprise.

Night after night on his couch of hay,
Siebert, the songless, comfortless lay,
Longing as youth longs—hungry of heart
For the fit of song and th' minstrel's
art.

When, lo! One night in his sorrow and
shame,
In his dreams a heavenly message
came:
"Son, sing thou of holy things
And God will quicken the harp's dead
strings."

Up and down the country-side,
Hither and yon, and far and wide,
Now here, now there, the tale was told
Till it reached the convent's quiet fold.

The mother-love, that lies impeared
In woman's heart thru all the world,
Stirred the soul and won its plea
In heart of her who held the key.

Day by day the portals swung;
Day by day the cowherd hung
On Calvary's tale, till shame and wrong,
Love and triumph, bloomed in song.

Yule again; th' reveling lord
And his blue-eyed barons span the
board;

The ale flows white, the boar's head grins,
When thus the merry host begins:

"Wild the storm; the night is drear;
More need within of warmth and cheer;
Sing on minstrels, sing, oh, sing
Of bravest deeds and fairest things!"

Like golden manes their hair they tossed;
Back they smiled on the jocund host;
Took their harps and set them atune,
Clearing their throats for another rune.

They sing of ocean's wide, wild realm,
The bird of fate at gallant helm,
Of lashing wave and tempest's roar,
The viking ship and plundered shore.

They shout with glee—the brawny band—
They pass the horn from hand to hand;
"Brave, brave," they cry, "but, minstrels,
sing
Another song of fairest thing."

And now 'tis hero dead in the strife,
And maids who kiss him back to life,
Bearing his soul o'er rain-bow walls
To feast again in th' God's bright halls.

Like babes they smile at the old Norse
tale,
Drop their tears in the dripping ale,
"Weshall!" they cry, "Now, now, they sing
Of bravest deed and fairest thing."

A stranger's voice on the tempest's wing:
"My lord, a fairer song I bring;
From wattle hut to chieftain's hall
My harp I've struck for thane and
thrall."

He steps the lighted hall within;
The feasting courtiers wink and grin;
"Tis Siebert, lord! Oh, bid him sing
Of bravest deed and fairest thing."

The rafters ring at the senseless quip;
The word is passed from lip to lip;
"Siebert, oh Siebert, strike the string
To bravest deed and fairest thing!"

Stilled the jest at the harp's first chord;
He sings the lowly birth of the Lord;
The humble folk who called him kin;
The sad, sweet life that knew no sin.

The quivering strings sigh back the pain;
They moan and murmur the old refrain
Till the matchless love and sacrifice
Bedews the blue-eyed baron's eyes.

The last low cadence dies on the gale;
They bow their heads and cross their
mail:
The whisper passes, "Siebert sings
Divinest deeds and fairest things"

The embers gild the rafters dim;
They clasp the hand and join the hymn:
"Glory, praise, and honor give,
The cowherd's song will longest live."

BOYS VERSUS CORN.

BY JENNIE BUELL.

CORN is the easiest and most interesting thing for boys to experiment with. They can test each individual ear before planting, watch the growth during the season, observe location of ears on the stalks, character of leaves, time of maturity, etc. There is no place on the farm where you boys can put in your time to better advantage than to carry on some of the experiments now started. You will find it intensely interesting and holding some surprises for you. It will make you better boys, better sons, better husbands, better fathers and better citizens."

The speaker was Mr. L. I. Lawrence, of Cass county, one of Michigan's many farmers who are studying crop growing on their own farms with such help as they can get from farm papers, experiment station bulletins, institutes, corn exhibits and such "home courses in agriculture." He was talking to a group of Allegan county boys who had brot to the county seat samples of corn they had grown, to be judged by Professor Jeffery, and to receive such prizes as any of them were entitled to under the terms of the "Allegan County Boys' Corn Contest."

Boys' corn contests have become popular events in this state under the promotion of various organizations. The combination of corn and boys for the sake of the boys, as indicated by the speaker quoted above, is being found a desirable one. In several counties the corn growing plan is being initiated by the county commissioner of schools, in others by public-spirited men who are interested in boys, in others by the farmers' institutes, or Granges, or Farmers' Clubs. The Allegan boys' contest, occurring November 20, was promoted by the County Young Men's Christian Association working thru its local branches, the schools and Granges of the county. The hearty co-operation of School Commissioner Thorpe and his teachers made it possible to lay the plan before all the boys of the country schools. Five hundred and twenty-five of them signified their intention of entering the contest. At least one hundred of these are known to have grown one-eighth of an acre of corn each, doing all the work necessary themselves, altho only forty-one, on the contest day, came forward with their exhibits and reports.

This contest was encouraged as similar ones are in every community where they are held, by substantial prizes offered by men who are interested in the corn, or boys, or both. In the Allegan contest, seven out of fifteen Granges put up one-third of the prize money, to which the County Grange added \$5.25, showing that as organizations their interest was somewhat enlisted during the first year. The county committee of the Y. M. C. A. made up the remainder.

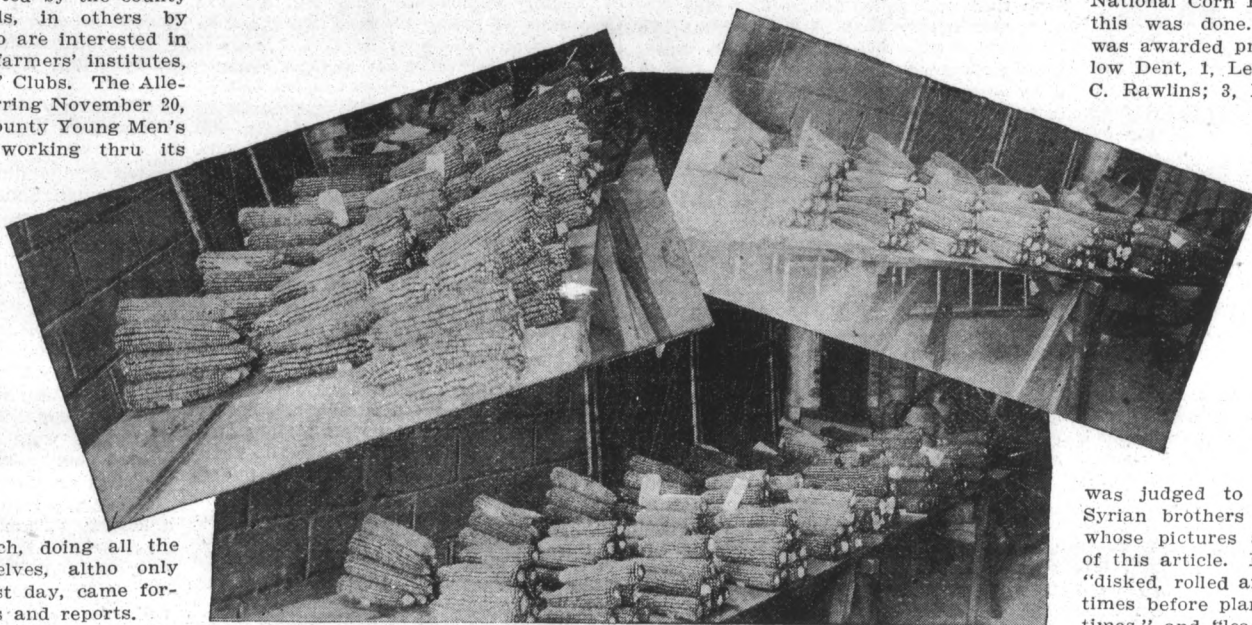
In awarding the prizes to the boys who



showed the best samples of corn, Professor Jeffery urged boys another year to bring their corn, even tho they felt sure it would not win anything. He said, "Up in Wexford county the other day, sixty boys brot in their ten ears of corn each to be judged. In that show there was one exhibit that consisted of two red, three white and five yellow ears of corn—all one boy had. Another boy's corn plainly showed that the frost had caught it when

fully recognize and appreciate that fact."

Professor Jeffery stated that the grandfather of one of the Allegan boys said that his boy had done the work on his corn alone and raised 22 crates of corn on his one-eighth of an acre, which is one and one-half times the average yield for the state. He pointed out that the value of such an exhibit is very, very great. It inspires them to follow intensive and intelligent methods, demonstrates



Prize Corn Grown by Allegan County Boys the Past Season.

the kernels were but in the milk. Now, those boys knew that they would not take a prize, and yet they had the courage to show what had resulted from their summer's work. Boys, it took grit to do that, in the face of the possibility of being laughed at. There was no prize offered for grit; so when I announced the awards I told the boys that I had bot two jack-knives, and I was going to leave those knives with the president of the Boys' Club with instructions to give them to those boys as a recognition that grit is a good thing to cultivate; and I wanted those boys to remember, whenever they used the knives in the field or woods, that they stood for something better yet, which they might carry with them always. Grit is worth more even than good corn, and I want you boys to know that we

for themselves what they can do and leads them to try other crops.

One father said to the County Secretary of the Y. M. C. A.: "I thot I knew how to tend corn, but my boy taught me something." Another said: "I am going to buy all the corn the boy raises, not only to encourage him, but I, too, have gained from the experiment and am willing to pay him for it."

"Teaching scientific farming," said W. H. French, of Lansing, who was also present, "tends to redirect and revitalize life. The purpose is to change the attitude of young men and women toward farming. A corn contest inspires you to be a winner, and the purpose of an education is to lead you to your niche to be a winner. Interest a boy in the farm in some scientific way of growing crops;

then you can get him to read and seek for knowledge himself."

Mr. Lawrence, in answering some of the boys' questions, cited them some of his own experiences in trying to improve his corn. As an example, he told of planting a row of 50 hills from each of 25 ears of corn and in the fall making a record of the number of good seed ears selected from each row. "You will be surprised if you try something of this sort," he said to the boys; "for instance, from the ear of corn that I classed as my best, I only got four or five ears, while some of the others yielded six to ten-fold as much. I advise you to try planting kernels from the tip, the middle and the butt of an ear and see what you get. Work it out for yourselves. It will be of much more value and fun to you than for me to tell you all of my experience."

This exhibit was said by Professor Jeffery to be, as a whole, more uniform than any other he had seen in the state. He explained to the boys that a corn judge, in passing upon an exhibit of this kind, must look beyond the corn to the exhibitor's ideal. From the ten ears of corn shown he could tell what ideal the man or boy who selected them had in his mind. Perhaps he had followed this ideal in choosing seven of the ten ears but "fell down" on the other three. He recommended that the exhibits which won the first and second prizes in Yellow Dent and the first in White Dent be sent to the National Corn Exposition at Omaha, and this was done. The boys whose corn was awarded prizes are as follows: Yellow Dent, 1, Levi and Edw. Miller; 2, R. C. Rawlins; 3, Harold Semon; 4, Harold Odell; 5, Guy Hewitt. White Dent—1, R. C. Rawlins; 2, Jas. Hall; 3, Raymond Long; 4, Albert Boyce; 5, Ralph Thorp. Popcorn—1, Clifford Wheeler; 2, John Volker; 3, Lawrence Knoblock; 4, W. McKee; 5, Raymond Long. Red popcorn—1, Clifford Middleton. Reports of work—1, Ruschack Etoll; 2, Ivan Taylor; 3, George Kurtz.

The lad whose report was judged to be best is one of two Syrian brothers who exhibited corn and whose pictures appear beneath the title of this article. His report shows that he "disked, rolled and dragged the soil three times before planting;" "cultivated seven times," and "learned that you must keep in the field with the cultivator and not cultivate too deep."

The boy who won first on popcorn reported that he "hoed it twice, cultivated it seven times;" "the birds ate some of the corn when nearly ripe and the cows ate half a shock;" but still he "raised 8½ bu. on his one-eighth acre."

Among difficulties encountered by these coming men in their corn experiments were "wet weather," "frost," "drouth," "chickens," "cut-worms," "a big cherry" (Continued on page 527).



Four of Allegan County's Young Corn Growers who Declare that they Have Profited from the Season's Experience and are Anxious for Another Try.

THE ORTEGA GOLD

BY HOPE DARING.

Synopsis of Preceding Chapters.—Ortega Ranch, an expansive and one-time prosperous estate, among the foothills of California, is forced upon the real estate market because of neglect and lack of management on the part of the aged Senor Ortega. Full of resentment, the old Spaniard and his daughter Carina, are obliged to take up their abode in an adobe hut on a five-acre plot not covered by the mortgage. A tradition to the effect that an early ancestor had sold a portion of the ranch and hidden the resulting gold about the place is held responsible for the senor's apparent want of energy and aggressiveness. The ranch passes to two young men from the east, Guy Cross and John Martin, cousins. Both are anxious to make of it a paying property and a comfortable home. The belligerent senor refuses to welcome them as neighbors, and his daughter, altho recognizing the injustice of her father's views, humors him by maintaining a like attitude. However, an accident to one of the cousins shortly after their arrival causes Miss Ortega and her faithful Indian servant, Wana, to offer their services, the former mounting her pony and riding for a doctor while the latter extends first aid to the injured man. Under the doctor's care Guy Cross recovered and the incident led to a better understanding between the occupants of the two houses, altho the senor continued to treat the cousins as intruders. One day, a short time after, Carina's pony came home riderless and the servant, Wana, was obliged to ask John Martin to go in search of her.

Chapter IV.—Down by the Sea.

John urged his horse to a trot. He knew the way to Cypress Point well. There a rocky ledge was thrust far out into the ocean. At high tide the waves swept over the trail that led out to the point, but the extremity of the ledge was high above the water, even in a time of storm. At one place on the promontory there grew a half dozen cypress trees, gnarled and bent.

"Carina is so good a horsewoman that Nacha could not have thrown her," John thought as he drew rein near the ocean. The mist shut the stretch of water from his view, but he could hear the sound of the breaking waves.

He pushed on. Suddenly Dick stopped. John leaned forward. "Ah, the tide is coming in. Well, Dick, old boy, there is not much more than a foot of water, you must brave it."

Dick entered reluctantly. The water proved deeper than John had thought, but he guided his horse thru it. They went on for a few paces, then the rider suddenly drew his steed to a stop.

"What is that? It is—yes, it is Carina singing."

He sat still. The singer was not very far from him, but the fog tended to make her voice sound far away. Softly she sang:

"Sweet and low, sweet and low,
Wind of the western sea,
Low, low, breath and blow,
Wind of the western sea!
Over the rolling waters go,
Come from the dying moon and blow,
Blow him again to me:
While my little one, while my pretty one, sleeps."

The sweet voice ceased. A moment longer John sat still. Then he called, unconsciously using the name by which he had come to think of the girl.

"Carina! Carina!"

After a moment's waiting he repeated the call. Back to him, thru the billowy folds of the mist, came Carina's sweet voice: "I am here, in the shadow of a great rock, to the right of the path."

It was but a moment before John reached her. She was sitting and did not attempt to rise but said: "It is Mr. Martin. Did you come for me?"

"Yes. Wana was frightened when Nacha came home, riderless. Are you injured?"

"Slightly. You know how gentle Nacha is, but as we rode out here the fog was drifting in. A dog came barking down the rocks, and Nacha bolted sideways, throwing me to the earth. I fell with my ankle doubled under me. It is only a bad sprain, tho, and Wana will cure it in a few days."

"I am very sorry. You shall go home at once. Are you suffering intensely?"

"It does not pain me greatly, unless I attempt to move it. There is a little pool of water here among the rocks, and I have applied a cold compress, using my scarf for a bandage."

"I will lift you upon Dick's back as carefully as I can and carry you home," Carina started. "The tide! I fear it will cut off our going."

"Do you mean the water that covers the path? It was not more than two feet deep, and Dick did not greatly mind it." She threw out her hands. "But it con-

tinues to rise. For about an hour every afternoon that path is impassable."

"Perhaps it is not too late for us to escape," and John turned away, to ascertain the depth of the water. It was only a few minutes before he returned to say, "We must wait, Miss Ortega. The water is rushing across the path so violently that Dick would be carried off his feet. I regret the delay."

"It matters only because Wana will be worried. Mr. Martin, how am I to thank you for coming to find me? You see, Wana could not come, for I had made her promise me that she would never leave my father alone."

John had unstrapped a blanket which he had rolled and carried before his saddle. He spread it upon the ground, then lifted Carina upon it, deftly adjusting the folds so as not only to shield her from the damp air but also to make her position more comfortable.

"I fear I hurt you, but you will rest better now. Do not feel that you must thank me; I am very glad to be of service to you, as you were to us the day Guy was injured. How did it come about that you were singing? Was it with the hope that your voice would be heard?"

"It was hardly that. I realize that the sea's voice is much stronger than mine. I sang to keep my courage up. Sometimes the sea is my good comrade, again it is my source of strength. It was this last to me today, because I needed strength so sorely."

"Does it not frighten you a little to think of the immensity of it all? It stretches far away into space, on and on."

"Yes, but it is free. And it is ever the same in one way, ever the same scope and power. Sometimes it dances in the sunlight, again it trembles with the storm's rage. It has many moods, but they are no more diversified than is the pathway of a single life."

"You are right, Miss Ortega, yet you are young to learn the lessons of life's changes. Pardon me, but it is too hard a lesson for a woman."

"I think it is a woman who learns life's hardest lessons. You see, not all women are shut round by the protection and love of a home, as you thought when you spoke. But I am not complaining. See! The fog is lifting. I think we will have a fair sunset."

A little longer they talked of the sea and the clouds. In something John quoted his cousin, and Carina said with a smile: "I liked him; he told me so frankly of 'the little girl' whom he hopes to bring to your home."

"He hopes to bring her this fall. Ruth Saunders is a sweet and winsome girl, and I am sure they will be happy together. To see a woman at the head of our table will make life seem worth living."

"It may surprise you to learn that I am much interested in the improvements that you are making at the ranch," Carina's voice trembled a little, and her eyes avoided John's gaze, altho she went on bravely. "You are doing some of the things I used to dream that we might one day do. With two masters at the ranch will you always agree?"

"In essentials, yes. Already we have learned that in some things we do not think alike. For example, Guy would like to build a new home for his bride, a house which he thinks would be more in keeping with her and his ideas of what a home should be. As for me, I think the present ranchhouse, restored and fitted with a few modern improvements, would be the ideal home for this country and climate. When I can afford it I will buy Guy out, and let him make a new home for his bride, while I work out my own ideas at Ortega Ranch."

"I am glad you like the old house," said Carina simply. "It is all the home I know. As a child I was supremely happy there. My mother—I wish, Mr. Martin, you could have known her. She was everything to my father. For him she had given up everything that the world calls good. Hers was the stronger nature, but, if she ever grew tired of my father's dependence upon her, she hid it in her own heart. The only regret that she ever expressed was that she could not arouse him to exertion. She used to say that the story of the Ortega gold had laid a blight upon his life."

"She did not believe the story was true?"

"Oh, it is true. The gold was hidden, but doubtless it has been discovered and

carried off by robbers. What mother meant was that neither my father nor his father had thought it necessary to make the ranch pay. It was as if they were sure the gold would be found and the finding would smooth away all money difficulties."

"Perhaps it will be found yet," John said, a note of earnestness in his voice, notwithstanding the smile that curled his lips. "Do I need to tell you, Miss Ortega, that, if it is discovered by the present owners of the old place, it will be at once handed over to you?"

A smile brightened the girl's pale face. "You do not need to tell me that; I know it would be so. But I never think of the gold now, save as one of the illusions that has led the Ortegas to ruin. O look! There comes the sun."

While they talked the fog had lightened and lifted. A fresh breeze had sprung up, and that hastened the going of the mist, which had changed from a dull and heavy gray veil to a shimmering, silvery cloud. The sun was near the western horizon. Suddenly it flashed out, and the golden and opaline-tinted splendor of the western sky was reflected in the gently undulating sea.

For a few minutes the two sat in silence. Then Carina turned her face inland.

"See the soft glory of the golden haze over all of mesa and mountains! O, the beauty of this sunset land! On the heights above us, and in the valley back of them, tomorrow's sun will awaken thousands of poppy blooms. To the California poppy the poet says, 'Thy satin vesture richer is than looms. Of Orient weave for raiment of her kings. I love it all.'"

For a single instant John Martin laid his hand over the girl's slender one. "I believe I understand. You are a part of this fair land."

"Yes. I told you I sang today to keep my courage up. It is not always so. Sometimes I come down here for strength, that I may tread the uncertain path of my present with fortitude. But once here, or hidden away among the foothills, I straightway forget all things in the joy of life."

"It is because you can so forget that you get your needed strength. Pardon me, Miss Ortega, if I speak plainly on a personal topic. I think you are the bravest person I have ever met, for I understand something of the burdens you are bearing, the uncertainties you are facing. And your voice does not falter as you sing your song of life. You

'Sing it in shadow—tho thy whole life long
No wreath of bay e'er be entwined for thee,
For thou hast trod, O patient heart of thine,
One fearful moment with eternal truth—
If somewhere, softly, on an unseen shrine
Thy song is sung.'"

Again silence fell between them. They gazed into the glowing west until the sun was very near the horizon line. Then Carina held out her hand.

"Thank you, Mr. Martin. You do understand. Now I think the tide has receded enough so that we can do so. How are you to get me home?"

"On Dick. I will walk by your side. Nay, it will not inconvenience me, not even to pass thru the water, for, as I had been out in the wet grass before Wana called me, I had on rubber boots. All I regret is that, be as careful as I may, you will suffer from being moved."

"I can bear that," she said gravely.

"Physical pain is not life's greatest ill," John led Dick close to the spot where Carina sat. Then, after arranging the blanket, he lifted her to the saddle. The girl's white face contracted with pain, but no murmur escaped from her lips.

"I must take you straight home I think, even if my presence does anger your father," John said as he started forward, leading Dick.

"Yes. He may say something that will hurt or even anger you, but when he once understands, he will be grateful to you, altho his pride will prevent his expressing his gratitude in a fitting way. Do not blame him too much, Mr. Martin; he is part of a different life from yours."

"I know, and you can trust me to be forbearing. As soon as you are safe at home I will ride for Doctor Encino."

"We must let Wana decide if that is necessary. You saw what she was able to do for your cousin, and I feel confident that she can attend to my ankle."

Little more was said as they moved slowly along. Carina was very pale, and her lips were tightly compressed. John spared her every pain that he could, and thru it all she was aware of his sympathy, tender, firm, yet unspoken.

They met no one. The sun had dropped below the western horizon, leaving the

sky a calm tranquil sea of light. When they reached the ranch, John opened the gate and led Dick straight up to the old adobe house, the front door of which stood ajar. At the sound of Dick's hoofs Senor Ortega came forward. One glance, and his worn face flushed angrily.

"What does this mean? You intruder, you pushing American! Carina, child, has he dared harm you?"

"Nacha threw me, and I sprained my ankle so that I could not take a step," the girl said wearily. "I was far out on Point Cypress and would have had to stay there, perhaps all night, had not Mr. Martin come to my rescue."

"But it was his fault, I know it was. Leave at once, you presuming cur!"

Wana appeared, and it was to her that John turned, making no reply to Senor Ortega's hot words. "I will bring her in. If, after you have examined the sprain, you find that Doctor Encino is needed, come for me, and I will go after him."

He lifted Carina in his arms. Her father started forward, but John walked on, following Wana thru the main room to a little chamber where he laid the girl on the bed.

"Forgive him, and thank you," she murmured.

He saw that she was sick and faint with pain. For an instant he bent over the bed, looking straight into her eyes.

"I am glad that I could do this for you. Send Wana to me later, for I must hear from you. Good-by."

He strode from the room and the house. Senor Ortega would have stopped him with some petulant words, but he passed on with only a bow.

Chapter V.—Senor Ortega's Anger.

It was an hour later when Wana came to the ranchhouse. Guy and John were seated at the dinner table when the Indian woman appeared in the doorway of the dining-room, unannounced. She held up an envelope and, as she crossed the room to lay it before John, said: "It is to say that the senor asks your pardon. Doctor Encino need not come; Wana can do for the blessed senorita. In a few days the ankle will be well."

"I sincerely hope so," was John's reply. "Is she resting now?"

"She sleeps. This day Wana was glad that you were here, for the senorita needed you." And the old Indian woman vanished as silently as she had come.

"Read the letter, John," Guy said with a laugh. "I am anxious to know if our good Senor asks your pardon as disdainfully as did Wana. We are intruders, but, if the senorita needs us, even Wana will tolerate our presence."

John opened the envelope. In stilted language Senor Ortega thanked the young man for bringing Carina home. He apologized for ordering John to leave, but there was no word in the note that could be construed as an expression of friendly interest.

"And I hoped that your gallant rescue of the distressed princess would be a flag of truce," Guy cried. "I say, old man, it's hard lines that we can't be friends with Miss Carina. I wish it for the sake of the little girl. It will be lonesome for her when she comes."

John nodded and devoted himself to his dinner. He had related the events of the afternoon to his cousin, but he had no wish to discuss Carina, not even with Guy.

The next day John saw Wana gathering lettuce from the little garden which she had planted and tended. He leaned over the fence to ask:

"How is the senorita today, Wana?"

"She slept well, and the swelling is gone."

"Is there anything I can do for her?"

"No. If there was, the Senor Ortega would not let you do it," and the old woman went back to the gathering of the crisp fresh leaves for her salad.

John was not one to give up easily. On returning from a ride to the village that afternoon he crossed a long rocky spur of wooded land and entered the valley where Carina had said the poppies grew so freely. It was as she had said—vast stretches of ground were covered with the beautiful flowers which the Spaniards had called Cup de Ora (cup of gold).

The young man gathered a great sheaf of the blossoms. He selected them with care, taking only fresh and perfect flowers and selecting those of different shades. Some were of a deep orange, while others were lighter in hue, and still others had the lighter edge of the petals of a paler tint than the center. With them he gathered a quantity of the pale green, fern-like leaves.

Upon reaching the ranch John found

(Continued on page 528).

THE WINTER ROSE.

BY RHODA BYARLAY HOPE.

Old Winter's here with all his joys,
His pleasant fires, his games and toys,
His outdoor sports, his frosts and snows,
And e'en the famous Winter Rose.
This product of the wind and cold
Can ne'er be purchased, never sold;
It beauty gives the face of youth
And health proclaims, this is the truth;
It seems quite transient, yet its hour
Is longer than the summer flower;
Oh welcome, rosy, lambent, fire,
Thou spark of Life, we thee admire.

TO WAKE YOU UP IN THE MORNING.

BY I. G. BAYLEY.

There are few boys who are not more or less interested in making things, a trait of character parents will do well to encourage.

The contrivance shown in the illustration will be found not only useful, but easily constructed. In the recess of the bedroom wall, support upon two brackets, B, B, a length of curtain pole, marked A, in the cut.

Just above the pole, suspend from the ceiling, a tray or waiter, or an old-fashioned door bell, by means of two screws, C, C. Immediately under these, put four short rods of wire or strong wood, thru the pole, crossing each other at right angles. Marked D, D, in the cut. At the end of the pole, secure a hardwood trigger E.

From plastering laths, or any suitable strips of wood, make three levers, F, G, and H, and secure them to the wall by means of large wire nails, I, J, and K, which, for obvious reasons are not in the centers of the sticks.

At the other end of the pole, A, suspend a weight, L, by means of a strong cord. The weight can be an old clock weight, or even a common brick wrapped and stitched up in a strip of carpet.

An ordinary weight clock, after the "Cuckoo-clock" pattern, completes the list.

Before retiring at night, the weight, L, is wound up, and the trigger, E, brot in contact with the lever, F, and incidentally the other levers, F, G and H.

The location of the clock in relation to the lever H, will depend upon the time of day the boy wishes to awake, and must be found by experimenting, since the weight of the clock reaches a certain position at a set hour.

Should the room have no recess as indicated in the cut, one of the brackets, B, must be made to project from the wall at right angles, sufficiently far to allow the pegs, D, to clear when revolving.

A CUNNING CHICKEN HAWK.

BY J. W. GRAND.

Sitting in the shade, among some bushes, and well secluded from view, this past delightful summer, my chief object of interest was a very rapacious chicken hawk. I never had my hands on him, and I suppose he did not even know I was there. He would have been rather undesirable as a pet, for his talons were formidable, and his curved beak, his fierce amber eyes and his splendid wings belonged to the wild, free air and the dizzy heights above. He was a cruel rascal, but he killed only what he and his little ones needed to eat; and the same cannot always be said of men.

This murderer was a hawk, with feathers russet red, and incredible swiftness of wing, together with wonderful ease in darting, wheeling, dropping straight down or rising almost perpendicular from the ground. Among all the birds I watched this summer, this gentleman was the most graceful and knew just what to do with his wings.

A little way up from the farm house was an old field, grown up with thick clumps of bushes, and this was his favorite hunting ground. Sitting in my secluded place, I watched him come out for his morning chase, flying negligently over first as tho he were simply out for an airing and was not thinking about breakfast, sometimes sending out the clanging

cry that strikes terror to all small creatures. The moment he appeared, or his harsh cry broke the stillness, a frightened commotion became visible in the open field below. The young chickens fled to cover and here and there went a scurrying rabbit, crouching at last under the shelter of a bush where they felt that their enemy could neither see nor reach them. But the rascal was not thru with them yet, no indeed. Having frightened them into hiding, he went deliberately to work to frighten them out again. Down he dropped upon any clump of bushes where he had seen anything hide, and in a moment he was hovering over it and beating the branches with his wings. If possessed with the finest reasoning power, he could hardly have done better.

If the quarry contained a young chicken it darted out in a panic, poor little trembling thing, and sometimes escaped; but if caught it was carried away with scant ceremony. Once I saw a little brown rabbit come out of a bush that the hawk

hawk's great wings were beating over and around it. Such panic and agony could not be endured long. The chicken was up and away, gaining the shelter of another bush, but that gave it only a short respite for the robber was soon after him.

There were times, however, when this hawk's preliminary survey of the field amounted to nothing. Perhaps his intended prey had foreseen warning of his coming and had taken shelter in safe quarters. At any rate, fly over as he might and clang that loud voice of his as he would, nothing stirred in the old field. When I first saw this I wondered what he would do for breakfast.

But this cunning rascal was not wont to sit down with his hands in his pockets and say that the world owed him a living, and wait for someone to bring his breakfast to him. What he seemed to be saying was, "There may be something under these bushes; I'll see," so he began hunting. This was quite different from catching the quarry after he had seen it. It might be somewhere in the field. So he began at one end of the field and went all over it, taking bush by bush in the most systematic manner and beating around every one so fiercely that nothing could escape him.

Sometimes he adopted a different plan. I would look in vain for him, until at last I saw him perched on an old tree as motionless as if he had been carved in stone; and for an hour at a time there would not be a flutter of one of his feathers. The little chickens would be quite gay, missing him, and would indulge in all kinds of frolics and gambols, when all at once down would dart the red hunter into their midst, and for some one of them the frolicking would be over.

But one day I concluded that this murdering of the little innocents must stop, so I carried a gun to my place of concealment, but the rascal did not show up for three days. They say that a hawk can smell a gun if it has been fired at him. Being possessed of lots of patience, I bode my time. He finally appeared again and got at his old tricks. His time had come, so, taking steady aim, I brot him down on the second discharge of my gun. He was a beautiful specimen and measured two and one-half feet from tip to tip of his wings. I had a great respect for this hawk, even if he did kill small, helpless things, for he worked so hard and industriously for his living.

BOYS VERSUS CORN.

(Continued from page 525).

tree falling on it," "crows and squirrels," "blackbirds and raccoon, and ground-mole;" while one boy even reports that his corn "was bothered by crows, coons, squirrels and cows," yet he won out and drew a prize. Another boy frankly confessed that "it was difficult for a boy to mark corn ground."

Everyone will concede that a prize was justly awarded for one report which showed that the corn had been "bothered by cut-worms and rooted out by pigs four times;" "that it was not so easy as I thot to keep it right," and that contained



A Group of Young Exhibitors.

the remark, "if the pigs hadn't rooted it out so much, I would have stood a better chance." This same brave boy, on the morning of the contest, walked in six miles from his home. At dusk he was seen starting out afoot for home and, in answer to the question if it were not pretty late to start on such a walk, he replied, "Oh, no, I'm all right; anyway, I've got my lantern, if it is dark," holding up the prize which had been given him for his report.

Some of the things the boys stated they had learned were: "That you have got to cultivate when it needs cultivating and keep the weeds out;" "that once hoeing is worth three times cultivating;" "to not cultivate too much but keep the ground stirred and the moisture on top;" "that two stalks in the hill are plenty;" "plenty of fertilizer and frequent cultivation holds moisture and causes corn to ripen earlier;" "that I had my corn too near my father's, so I have some mixed kernels in mine;" "not to cultivate too deep after tasseling;" "that good soil, good fertilizer, thoro cultivation, patience and perseverance will raise good corn;" "how to test, plow, harrow, mark, plant, cultivate and harvest corn;" and "if at first you don't succeed, try, try, again."

To the question, "Do you want another contest next year?" the answers ranged from two boys who voted "No" to thirty-nine who replied in one of the following: "Yes," "Yes, sir!" "You bet!"

Last spring when the boys registered, they were invited to come to Allegan and receive special instruction in corn growing from Mr. F. W. Howe, of Washington, D. C., and Prof. Jeffery of M. A. C. One hundred boys accepted this invitation and a few "old boys and girls" came, too. Special printed matter was sent later to all the boys who enrolled. During the season the county Y. M. C. A. secretary, Mr. C. Frank Angell, visited many of the boys, photographed some of them at their work and encouraged them in what they were trying to do. It is now felt that a much greater efficiency can be given the contest next year by securing at least one progressive farmer in each township who will counsel with and encourage each boy in that vicinity. But this movement is only in its infancy. We are as a people just really beginning to take stock of farm boys as well as of corn. Sometime we shall all look at this from the viewpoint of the County Young Men's Christian Association and in this corn improvement "fad" see the boy back of the corn as of first importance. Not "better corn for corn's sake," but "better corn for the boy's sake," should be the motto of this whole movement.

They All Like It.

I wish to congratulate you upon the success of the Magazine section. It is quite half the paper. We all like it.—Mrs. Irene Kendrick, Blissfield, Mich.

A CHANGE OF HEART.

By Lura Warner Callin.

Christmas Morning.

Oh, see! what Santa Claus brot me
A beautiful Teddy Bear
With shiny black eyes and wide-awake
ears
And lovely soft, brown, silky hair.



I'm dreadfully tired of dollies,
I don't want mine any more.
I'll take you to bed with me now, dear,
For my old doll was learning to snore.

And she 'sturbs me and makes me dream
awful

'Bout bears, not nice ones like you
But great, big hairy cross ones
With awful big mouths—oo—oo—oo!

You're going to be a great comfort
For your clothes are all ready to wear—
I'm completely worn out making doll
clothes

So I'll get a good rest, Teddy Bear.

Christmas Evening.

Oh, dear! I'm getting so sleepy!
The sandman has found me, I know.
For I can't keep my eyelids unbuttoned
And my head keeps bobbing 'round so.

But there! I've got to find dolly—
I wonder if she's run away?
Why, dearie, you in this dark closet
By your lonesome this whole blessed
day?

Come to muzzer! I feel just like crying,
To think of my poor pet off there



Forgotten while I was a-playing
All day with that old Teddy Bear!

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And I'll make you a new gown to wear.
I'm 'sprised at myself but you see, dear,
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The Michigan Farmer
5 Years for only \$2

THE ORTEGA GOLD.

(Continued from page 526).

that the poppies were closed. He placed them in water, carrying them to a spot where the first rays of the morning sun would fall upon them.

Before anyone was up at the little adobe house the next morning, John laid his sheaf of poppies on the front door-step. On a card he wrote, "From the valley back of Cypress Point," but he added no word to tell who had brot them there.

"She will know," he said to himself.

Carina did know, and the act of thoughtfulness brightened the wearisome day for her. Her ankle mended rapidly; in a week's time she was walking about the house and yard.

John often saw her. Occasionally he stopped in the highway for the exchange of a few friendly words, but he always feared that Carina might be blamed by her father for the interview, brief as it was.

The land was at its fairest. Roses and orange blossoms loaded the air with fragrance. The rainy season was over, and not yet had the sun burned the shades of living green from the hills.

There had been various reasons for the delay about the installation of the border cement irrigation ditches. The owners of Ortega Ranch had tried not to be impatient, for they knew they would have water from their own supply to last for a time. However, they were glad when they received notification that the men would begin work the following Monday.

The crew of men for the work arrived early. A tent and a cook had reached the ranch in the night. The tent had been pitched in the shade cast by a group of pepper trees that grew not far from the house. Breakfast was ready for the men when they arrived.

The foreman came up to the ranchhouse for a conference with John and Guy. He was a wide-awake, intelligent fellow, and knew just what his men were to do. The ranch owners had signed a contract with the Hill-land Dam Company, so the young men were free to go about their own work, after a short conversation with the foreman.

Guy started for Capistrano, to carry the cream to the station. John and Pedro were cultivating the long rows of sweet potato plants that had been set out between the tiny orange trees of the new grove.

The men began the digging of the ditches very near the front of the ranchhouse. They were only fairly under way when John heard a call. Looking around he saw one of the ditchers signaling him.

"Here's a old cove as wants to see you," the man shouted.

John tied his horse to a gnarled live oak that grew on one side of the field, and started for the house. His mind had instantly reverted to Senor Ortega, but he could not imagine why the old man should want to see him.

"Can it be about the ditches?" he thought. "I remember Marshall telling me that the senor strongly disapproved of any modern mode of irrigation, or anything else that is modern."

When John reached the highway he saw Senor Ortega standing bareheaded in the bright sunshine. He was engaged in earnest conversation with the foreman, who watched John's approach with a relieved look.

"Here is Mr. Martin, sir. You better talk with him."

"Good morning, Senor Ortega," John said politely. "I am glad to see you. The sun is very hot this morning. Will you not come up in the shade to talk with me?"

"It will not take me long to tell you what I have to say," and, as Jose Ortega's eyes rested upon the young American, a quick flash of wrath colored his worn face. "They tell me it was by your orders that this outrage was attempted."

"Outrage? Why, Senor Ortega, I do not understand. Is it possible that you mean the ditches? If you will give the matter a little thought I am sure you will see that the operations my cousin and I have in hand cannot be carried on without more water than is afforded by the supply here. These ditches are to be put in by—"

The senor waited to hear no more. "I have heard that story, and I care nothing about it. You may say that, because you succeeded in driving me from my home and most insolently took possession of it, I have no voice in the matter. But I forbid this work going on."

(To be continued).

Folly is simply pleasure which hurts

GET THE MOST OUT OF YOUR TELEPHONE.

In Michigan there are 161,037 farms owned by the farmers who work them and there are approximately 50,000 rural telephones in Michigan connected on the long distance lines. When one farmer out of every three has a telephone it is pretty conclusive proof that the farmer does not have to be educated as to the value of telephone service. He has found out for himself that a telephone has become almost or quite indispensable to modern farming methods. The writer of an article recently published in a Detroit daily paper estimated that the telephone, simply by keeping the farmer in touch with the markets, had increased the farmer's profits five per cent per annum. The time was when the farmer prepared his load for market by guess work and if he proved to be a poor guesser as to just what condition the market was in he was obliged to bring his load back unsold or accept whatever the local produce merchant was willing to offer. And the merchant did not necessarily impose upon the farmer but bot on the chance of keeping it until the demand for the produce should appear. Some times he lost more on the speculation than did the farmer and sometimes he made a profit great enough to warrant a much higher price to the farmer. The rural telephone has changed all this for it enables the farmer to hold his own produce until the demand becomes active; in this way the farmer can, in a measure, even control the price of his produce. The time to get your price is when the customer must buy.

But, the possibilities of using the telephone even to greater advantage is not as apparent to some farmers as it should be. Every year the farmer is developing as a business man, the younger generation has profited from the experience of the older and even the opportunity for study and that is much greater now than it was before the labor-saving devices relieved the farmer of heavy and time-consuming work. The farmer has changed from a "toiler in the field" or a day laborer to a business man. He manages his farm much as a factory superintendent manages his plant. The agricultural colleges, with the aid of the agricultural department at Washington and the agricultural books and publications, are reducing agriculture to a science. Today the farmer does not have to guess to get results, he gets them by following the laws of science and by studying the markets.

The reason that the farmer, as a rule, does not use his telephone to the best advantage is because he has neglected the "sales department." The most important adjunct to a successful factory or commercial house is its "sales department." It is harder to sell goods to the best advantage than it is to produce them. Many of the 50,000 farmers connected on the lines of the long distance company fail to appreciate the marvelous scope of the service. There is not a city or town of any importance in this country or a business house in them that is not available on the long distance lines.

For instance, a farmer a few miles north of Pontiac was in Detroit last summer and left his name and address with a number of commission merchants and particularly impressed on them the fact that he had a long distance telephone. In September he received a long distance telephone call late one afternoon. It was a Detroit commission house that had to get in a certain number of bushels of peaches to make out a car load for shipment the second day thereafter. They simply had to have the peaches and they were willing to offer a fifty per cent advance on the price for what they needed if they could be secured Monday in time for the shipment. After having received the order over the telephone the farmer, by using the same telephone, got his help together and succeeded in getting his entire crop into Detroit on the prescribed day and by this agency alone added one-half to the productiveness of his farm.

How easy it would be for the farmers to get the names of leading produce buyers in large cities and send them a printed circular setting forth the expected quantity and quality of their crops and emphasizing the fact that they had long distance telephone service and rural free delivery. The very progressiveness of the initiative would appeal to any good business man and if he could buy from the farmer direct he would save the middleman's profit and also be able to pay the farmer a higher price than would this same middleman. If twenty farmers in one community would get together in



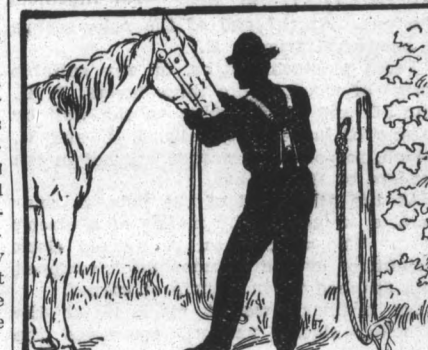
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AGENTS

make money with the R. B. Patent Glass Cone Lamp Burner. Guaranteed to give one-third more light; uses only one-half as much oil; lasts five times longer. Agents sell to nineteen out of twenty families, from one to twelve burners each. One agent sold sixty-eight during the first week. A boy, before and after school hours, cleared \$4.50 in two days. A lady cleared \$27.25 in sixteen hours. Ask for Circular and Terms to Agents. Sample, 30 cts. I. C. LIMBODEN CO., Cleona, Pa.

this way and keep together by telephone with each other and with the commission men the local buyer and his profits might be eliminated.

The switching arrangement which the long distance company is now offering the co-operative rural lines and the connecting up of local telephone companies has so extended the scope of the farmer's telephone that today a Michigan farmer could, if he desired, call up and talk direct to over four million telephones located in the states east of the Rocky Mountains.

Wayne Co.

J. H.

OUR YOUNG MEN'S COLUMN.

In previous issues we have given our young men some advice regarding the selection of clothes, and now we believe we should go a little further and say a few words in regard to the keeping of them.

How often do we see certain young men whose clothing expenditure we know must be quite limited, and yet who always look well dressed. By playing Sherlock Holmes and doing a little detective work you will quickly discover the reason for it. You will notice first that such men keep their clothes well brushed and sponged, thus preserving the original rich color of the fabric, for even the best of materials will lose their brightness in a very short time unless the dust is kept brushed out of them.

We don't wish to set forth a series of "don'ts" for those who are inclined to be a little thotless on the clothing question, but we want to say that if, when putting your clothes away until the next occasion calls for them—even tho it be the next morning, you should invariably use hangers, both for the coat and the trousers. You won't realize what a great difference it will make in the appearance of your apparel until you have tried it, for nothing will so quickly put garments out of shape as to hang them carelessly on a single peg, even tho you use the hangers inside the collar of the coat for that purpose. The hair cloth and canvas linings that give the "shape" to the coat will eventually lose their stiffness and the lapels and entire front of the coat will be inclined to sag. You can prevent it by the simple use of hangers.

Another advisable plan is to keep two suits on hand and to wear them alternately, then, if your clothes should become damp thru the day, either from perspiration or moisture in the air, the second suit will not only be far more comfortable for the next day's wear, but you will avoid putting the other suit in a deplorable condition that usually follows the wearing of damp clothes. By following this plan you will find that the trousers will not bag at the knees and the coat will not become wrinkled and pulled out of shape.

Neckwear is another tough proposition for the average young man, and here we must say, don't ever buy one of those manufactured ties—the kind that are already tied and never can be untied—the kind that look to collar buttons for support, for they are now a thing of the dark ages.

Almost any good furnishings store can give you four-in-hands or "bat-wings" in a good silk or other materials as low as 25 cents. Then when they become wrinkled or soiled a little sponging and ironing will make them look as good as new.

These little pointers may seem trivial to you but if you will pay a little attention to them you will soon establish a reputation for being a well dressed man, and what, after all, is more important in these days of progress than being well dressed? It is the thing above all others that will assist you in your progress, be it business or social. Many a man has "lost out" at some critical time in his life, and many of them if they had the power to analyze the deal would be surprised to know how great a factor was his personal appearance at the time.

Make it a habit—this careful dressing, and you will find that you not only improve your personal appearance but you will find a like improvement in character, for the effect of orderliness on the mind is to encourage orderliness in thots and action.

After all, it is the young man who pays attention to the small details that is able to successfully handle the greater problems with which he comes in contact in later years.

Character is higher than intellect. * * A great soul will be strong to live, as well as strong to think.—Ralph Waldo Emerson.

Don't Buy "Standard" Twine In 1910!—Read Why

You can't afford to buy it, because it will cost more, length for length, than the longer, better grades.

Most "Standard" twine is made from Sisal fibre, the longer grades largely from Manila hemp. Have you heard about the speculation in Sisal which has made it higher priced than Manila, the much better fibre?

An attempt is being made to corner and monopolize fibre. That would surely mean much higher prices for binder twine. We want to prevent it. Do you want to help—and at the same time get better, cheaper twine? It means millions of dollars to American twine users.

The only way to do it is to refuse, this season, to buy a pound of twine made from Sisal. We have studied the matter and we know.

We are making it easy for you by selling our longer grades of twine cheaper, length for length, than "Standard" or Sisal.

You can save money next year and the years following—if you act now. Don't wait! Your twine dealer is

placing his order now for next year's stock. Go tell him that he must be prepared to furnish you twine running 550 feet or more to the pound. (All twine on the market running less than that is usually made of Sisal.)

We are telling you honestly, from our expert knowledge, just what will be best for the twine-using public. This advice is just as true whether you use our twine or some other.

Either of the following two twines is a big bargain!

Plymouth "Extra" Plymouth "Superior"

Plymouth "Extra" twine runs 550 feet to the pound, Plymouth "Superior" 600 feet. Both are noted for their evenness and generally satisfactory qualities. Ten balls of "Extra" will do as much work as eleven balls of "Standard" and will cost less.

These are the tags you will find on the balls. Remember there is no genuine Plymouth twine without the sheaf trade-mark on the tag.

We will furnish "Standard" 500 feet twine if you want it. You will lose money, however, by buying it—this is true of any "Standard" twine, whether Plymouth or other makes. There never was a time when the buying of the right kind of twine was of such importance to the farmer. If you are interested, as we are, in preventing monopolistic methods and exorbitant prices—if you want to see the twine business conducted in a fair, independent manner you will follow our advice.

If you want all these matters explained more fully, write your name and address plainly on a postal card, say "Send Twine Booklets" and mail it to



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The Deere No. 9 Corn Planter

the most highly perfected machine on the market, adds to its value.

Increased accuracy secured by the famous Deere edge-selection drop, means anywhere from ten to fifteen bushels per acre over the old style of machine. Repeated tests have shown the above increase in favor of really accurate planting.

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125 Million Bushels of Wheat were harvested in 1909, and the average of the three provinces of Alberta, Saskatchewan and Manitoba will be upwards of 28 bushels per acre. Free homesteads of 160 acres, and adjoining pre-emption of 160 acres (at \$3 per acre), are to be had in the choicest districts. Schools, convenient, climate excellent, soil the very best, railways close at hand, building lumber cheap, fuel easy to get and reasonable in price, water easily procured, mixed farming a success. Write as to best place for settlement, settlers' low railway rates, descriptive illustrated "Last Best West" to Sup't of Immigration, Ottawa, Canada, or to the Canadian Government Agent. (8) M. V. McInnes, 178 Jefferson Ave., Detroit, Mich.; C. A. Laurier, Marquette, Mich.

Always mention the Michigan Farmer when writing to advertisers.

OF INTEREST TO WOMEN

Does a Feeling of "Unrest" Rule Women?

If you were asked what, to your mind, is the most striking characteristics of our people of today, what would you answer? Would you say "Unrest?" Attend any gathering, a concert or other entertainment, an evening party, even a church service, and is not the prevailing spirit one of unrest? You notice the physical unrest in the tapping fingers, the scraping feet, the moving back and forth in the seats, the turning of the head from side to side, clearing of throats, and in dozens of other ways.

The faces, too, mirror the same spirit. Tense, eager, even anxious, the eyes unnaturally bright and searching turning this way and that as tho ever seeking something they would possess, every countenance depicts the mental and spiritual unrest of our generation. Especially of women is this true. Slowly, insidiously, but nevertheless surely, the dissatisfaction which began with a few has spread until the larger part of our women are tinctured with this demon of unrest, until, instead of the contented, peaceful women of our grandmother's times, we have discontented, dissatisfied creatures, wanting something, they know not what. But all the same, strongly insistent that they do not want things as they are. What is the reason and what the cure? Every group of thinkers has its own answers to the question.

The idle, rich woman will tell you it is wealth. "It is because women no longer need to work," say these women who toil not or spin, tho nature has filled them with energy and blessed them with ambition. "In the olden days, the good old days of simplicity, when women spun and wove and knit and sewed and baked and brewed, in short, when they did all their work with the help of their daughters, there was not this discontent and restlessness. The advent of machinery to lighten woman's labors, the springing up of bakeries and creameries, and laundries and all these other labor-saving schemes, has robbed woman of her natural work and left her a victim of her own active mind and idle hands. Women are nervous and unstrung because they have nothing to do and nothing to live for but excitement." But the women who work, there are still women who are comfortably busy most of the time. This argument does not appeal to them, for the busy woman has felt, too, those restless stirrings. She insists that women are dissatisfied because they are overworked.

"Women are dissatisfied because there are too many demands upon them," says your busy woman. "Now, in the old days it was not so. To be sure, our grandmothers had not our labor-saving devices, but then, there was little expected of

them. They were not supposed to be the equals of their husbands mentally, nor to know anything about business. They never thought of keeping up with their sons in school, or even of keeping posted in the doings of the day. They never heard of clubs and they were not required to dress so well. If a woman was a good housekeeper, that was all that was expected of her. But I am expected to be a perfect housekeeper, a fashion-plate, an encyclopedia or useful knowledge to dole out to my children, a trained nurse with a working knowledge of medicine, so that in an emergency I can take care of any sort of sickness. I must be able to converse intelligently with my husband on any topic and to find time besides for church, charity and calling. If we could return to the old days of simplicity I am sure unrest would disappear."

The suffragette has her cause and cure for the disease which has taken hold of the body politic. She knows that women are discontented because for so many years they have been oppressed and downtrodden by man. Give woman the ballot, and her dissatisfaction with life would disappear at once, says the equal rights advocate. Others have other reasons for the condition of things. Drunkenness, poverty, ignorance, higher education, the advent of woman into the business world, all are blamed as being the root of the evil. But it has remained for a man to advance the only absolutely original and novel argument. A writer in a current magazine declares it to be his firm conviction that women are dissatisfied because their husbands will not allow them to have men friends.

So the philosophers go on theorizing. But to my mind each one has named but a sign of the unrest, and not a cause. Looked into closely, is not every theory advanced so far but a sign that unrest exists, and not a cause for such a general condition of things as we find? I believe that the unrest is here because the world is ripe for a great change, spiritually, industrially, politically, mentally and physically. The old order of things was good in its day, but its working efficiency is over. The new century, the next generation even, needs something better than our fathers and mothers enjoyed, something ahead of what we are enduring.

A great change is coming, new thots, new religious motives, new governments are to be born, and we of today are in the throes of that birth of new and better things.

The old must go, and the first sign which marks its demise is the spirit of unrest and discontent with which the women, and the men, of today are filled.

DOROTHY HUDSPITH.

CHRISTMAS MADRIGAL.

Christmas is here;
Winds whistle shrill,
Icy and chill:
Little care we.
Little we fear
Weather without,
Sheltered about
The Mahogany Tree.

Here let us sport,
Boys, as we sit;
Laughter and wit
Flashing so free.
Life is but short—
When we are gone,
Let them sing on,
Round the old tree.
—William Makepeace Thackeray.

CHRISTMAS TREE SUGGESTIONS.

BY PANSY VIOLA VINER.

Those living in the country places need have no excuse for not having a Christmas tree, no matter how slender their purses; for here bush or bough may be had for the cutting, and very effective and satisfying decorations can be made without any outlay of money.

The gay streamers that are to lighten the somberness of the evergreen are as pretty in effect made out of pink, blue, scarlet, yellow and white paper muslin, as if of the most costly ribbon. English walnuts and scallops shells gilded or painted and hung from the boughs by black thread are pretty; long strings of cranberries, of popped corn, or of peanuts may be looped from limb to limb. Bright, red apples fastened on the tree with colored cord add another dashing color note; Bethlehem stars and cres-

cent moons cut out of cardboard and covered with gold or silver paper shine out amongst the dark green of the tree, and are very simple to make; small, fancifully shaped bags may be filled with nuts, candies, raisins and dates and suspended from the tree. Every home scrap bag boasts of some bright pieces of silk and satin, odds and ends of ribbon from which these little bags can be made. If not, netting can be used and overcast on the edges with brilliant worsted. Almost every child knows how to make paper chains and these look pretty on the tree. A pretty red and white effect is obtained by stringing the bright red cranberries and the white popcorn alternately. It is wonderful how these simple and inexpensive things will decorate a tree.

Doughnuts tied with bright ribbon and suspended from the tree are nice; and the children will delight in the cakes cut in the shape of men or animals. Cookies frosted in white, with the child's name put on in pink, will cause their eyes to dance with joy. It takes so very little to please the children that we should be willing to take a little time to prepare these things. If the purse is slender it is surprising how many pretty, useful and economical little gifts can be purchased at ten cents and sometimes at even less, also many pretty gifts can be made of materials costing little, or those in the house. These should be done up in some manner that will arouse the children's curiosity, and give them a little surprise also. The smaller present may be hung

on the branches, the larger ones heaped at the foot.

The tree may be fastened into a tub, with stones piled around the stem to keep it steady. Overlay the top of the tub with moss or entirely cover with vines or cedar branches. The candles that are to be used for illuminating should be placed at the very tips of the boughs, so that there will be no danger of setting fire to the upper branches. If one can afford them tiny Japanese lanterns are much better for lighting the Christmas tree, since there will not be near so much danger of fire.

WHAT THE SHOPS ARE SHOWING.

Collars, Belts and Other Feminine Accessories.

The pretty and dressy French Jabot is still the leading thing in neck decorations and they are worn with collars and stocks of all kinds. Those of lace and embroidery are most shown, but dainty ones are made from fine handkerchiefs and these kind launder much better than the ones made from more delicate fabrics.

High collars are still the rage but the ones raising higher behind the ears than in front are no longer in good taste. All new collars are finished with ruching or other top trimmings. Large lace collars are to be worn a great deal and they can be purchased from 50 cents up as high as one wishes to pay. They are made to wear with the Dutch neck effect, or to be pinned on below the regular dress collar.

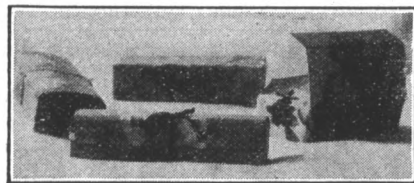
There is not the great variety of belts displayed this year, as in previous years, owing to the universal use of one-piece dresses, which does away with the belt. What are shown are in the leather, the braids, and fancy material. Most of them fasten with the snap, covered with the same kind of material as the belt, buckles are not much in evidence.

Gloves are now shown in most of the new colors to match the new dress shades and the little strap for fastening is new from Paris. The fad for large hand-bags still holds sway and some are big enough to carry all of miladi's small shopping, not mentioning dozens of other things.

While the custom is exceedingly dangerous, low shoes will probably be worn all winter, by a large number of women, especially in the house, and very pretty new hose in all the colors to match the gowns, is the thing. Shoes with colored tops are losing favor. Tans and dark reds, in a heavy walking shoe, are very popular. These shoes are built with wide, heavy soles and high tops and are most sensible for cold weather.

HOME-MADE HOLIDAY CANDIES.

For years back we have been making all of our holiday candies. Not only do we find them much cheaper than the bot candies, but we have the assurance of knowing just what they contain, and that they are at least pure. A box of home-made candies always makes an acceptable gift to a friend, as well as to members of the family these candies are not nearly as much trouble to make as one might think. Fondant, which is the basis of nearly all the finer candies, can be made a week or two before you are ready to make the candy. If there are grown-up daughters in the home they will delight in this part of the Christmas preparations.



Pretty boxes can be made for these candies by using biscuit boxes, and covering them neatly with pretty wall paper or with the covers of magazines. The holiday covers usually are decorated with holly in some manner and are especially appropriate for this purpose. Crepe or water color paper can also be used. Line the boxes with paraffine paper, and if the candies are soft, such as chocolate creams then place a layer of stiff cardboard or bristol board between each layer of candies. If coloring is used in making candies be sure to get fruit or vegetable colors. Anyone can get these at the druggists. One should have different kinds of flavoring extracts on hand when making candies, thus variety is insured. Fondant is not at all difficult to make if one follows directions and watches the syrup closely while on the fire. To prepare it place in a sauce pan or kettle

two pounds of either loaf or granulated sugar, one pint of water, and one-half teaspoon of cream-of-tartar. When it begins to boil carefully remove all scum and if crystals should form around the edge of the pan, wipe off with a damp cloth, being careful not to touch the boiling syrup. When large bubbles begin to rise watch carefully and test frequently by dropping a little into ice-cold water; if done it should form between the fingers into a soft ball, one that hardly holds together. Have ready a large platter, slightly oiled and pour the sugar syrup over it. As soon as the sugar can be touched with the back of the hand without burning work it with a small wooden spoon or spatula, from the sides of the dish to the middle, till it becomes firm and white, then gather the sugar in the hands and work until a creamy paste. If, instead of becoming creamy, it grains, put it back in the pan with one or two tablespoons of water and boil over again. Make chocolate fondant in the same manner as the above, only add to each pound of sugar four ounces of unsweetened chocolate. Pack the fondant down in bowls or crocks, and cover with greased or paraffine paper; then set away in a cool place until ready to be used.

Of all the candies made out of fondant perhaps the chocolate cream drops are the most liked, and yet are the most tedious to make. To prepare them take some of the white fondant, flavor with vanilla or any flavoring desired, and form into cone shape with the fingers. Let the cones stand awhile until they harden on the outside. Grate some plain chocolate and place in a double boiler; let remain over the fire until the chocolate is melted; drop the cones into this melted chocolate one by one, or two or three can be put in at once if liked. Roll around so that all sides may be covered. Lift out carefully with a two-tined fork on a piece of wire twisted into a loop. Hold until all extra chocolate has drained off, then place on waxed or greased paper and let stand until cold.

Fondant is nice used in connection with fruits and nuts. To make nut or fruit bars or cubes, chop the nuts or fruit very fine and knead into the fondant. Press this into a long bar with the hands, and lay on a buttered plate. To make it perfectly smooth dip a knife into water and pass it over the top of the bar, also over the sides. Let stand three or four hours, and cut into cubes with a thin, sharp knife. Chopped dates and nuts can be combined in these bars, or chopped figs alone used, or a combination of fruits can be used. Almonds are nice dipped in the cream. Blanch the almonds by putting them into a saucepan with boiling water, letting them cook three minutes; remove, drain off the water and free the meats from the skin. Lay them in a shallow pan and let dry in the oven. Flavor the fondant to suit the taste, dip into the melted fondant or else form it with the fingers around the meats; roll while still moist in granulated sugar. Walnuts can be creamed in the same manner; as fast as they are formed place halves of the English walnuts on both sides of the ball and press them firmly together.

Creamed dates are always nice. Mix some of the fondant with chopped nuts, remove the pits from large dates, and stuff with this mixture, then dip the dates into melted fondant.

There are a great many delicious candies that can be made without the use of fondant. To make vanilla caramels put into a saucepan two cups of brown sugar and a cup of cream, and flavor quite strongly with vanilla, but this should not be added until just before removing from fire. Bring to a boil then add one teaspoon of cream of tartar. Cook to a soft ball, stirring all the time; pour out upon a platter that has been dipped in cold water. When cool enough to touch with the back of the hand work into a smooth cream, roll out into sheets about one inch thick, on buttered paper; mark into squares and set aside until cool. Wrap up in squares of waxed paper. Chocolate caramels are made much after the same manner only chocolate is added, using about four ounces to a pound of sugar.

Chocolate almonds are fine. Blanch the almonds and place in the oven until they are well browned; then dip into melted, sweet chocolate, and place on greased paper until the chocolate hardens. Many people are fond of peanut candy; prepare the quart of peanuts before making the candy; that is, shell, skin and chop finely. Take two cups of molasses, four cups of light brown sugar, one-fourth cup vinegar, and four large tablespoons of butter.

FARMS AND FARM LANDS FOR SALE OR EXCHANGE

FOR SALE—\$9,000 farm for \$8000. South Central Michigan. Must sell. Address W. A. WHITEHEAD, Ionia, Michigan.

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As soon as it boils stir, and keep stirring until it is done. To test, drop some in ice-cold water; if it becomes brittle it is done, then add the peanuts. Cook for about two minutes after adding; just before pouring out add a teaspoon of vanilla. Pour into buttered sheets so that it will be in thin sheets. When it has become hard cut or break into squares. A good hickory nut candy is made by boiling two cups of sugar and one-half cup of water together until it will thread. When done flavor with a teaspoon of vanilla and lemon together, turn quickly into the beaten white of an egg, stir in one cup of hickory nut meats, turn out into a flat buttered dish, and when cold cut into squares.

A delicious fruit and nut confection is made by chopping together one cup each of figs, raisins, citron and candied orange peel, dates can also be added if liked. Add to this a cup of chopped peanuts and a half cup of chopped almonds. Moisten in a saucepan two pounds of sugar with a little vinegar and add a large tablespoon of butter. Cook until it forms a firm ball when dropped into cold water; it should not get brittle. Beat up until creamy, add the nuts and fruits and mix well into the cream, using the hands for this purpose. Roll out into a thin sheet on a board, well-dredged with confectioners' sugar. Cut with a small cutter into circles or cut into squares. A pretty striped candy that the children will like is made by boiling together a pound of sugar and half a cup of sweet cream; add one tablespoon of butter, and a pinch of soda. Cook until it makes a firm ball when dropped into ice-cold water. Pour half of the syrup into one dish and half in another. Color one-half with red fruit coloring, and flavor with peppermint. Pour the white syrup over this, and as soon as it is possible to handle it pull into sticks, then cut into strips the desired length and you will have a red and white, or pink and white, striped candy.—M. M. Wright.

KINKS.

Kink I.—Transposition.

Select a word of four letters whose letters can be transposed to spell four other words.

Kink II.—Triangles.

How would you make four triangles with only six toothpicks?

Kink III.—Addition Sums.

1. Add together a kind of fish and a prong (letters transposed) and get a kind of basket.
2. Add together another kind of fish and a stick and get a Swiss mountaineer's article.
3. Add together a digger's tool, a Biblical land and a letter, and get a common fish.

Prizes for Straightening Kinks.—To the sender of each of the ten nearest correct answers to the above Kinks, we will give choice of a package of 50 post-cards representing a trip around the world, a copy of "Concrete Construction on the Farm," or a fountain pen. Where contestant or some member of his family is not a regular subscriber a year's subscription (75c) must accompany answers. Answers must not reach us later than Jan. 8, as correct solutions will be published in issue of Jan. 15. Address answers to Puzzle Dept., Michigan Farmer.

Answers to November 20 Kinks.

Kink I.—Alphabetical Advice.—1. Be too wise to be under obligations to anyone. 2. Use your eyes to seize opportunity before it flies. 3. Owe naught. 4. Busy be like the bees. 5. Excel by doing good. 6. Use few excuses. 7. An empty plate means an empty plate. 8. Envy not the greatest (S) nor scorn the smallest (s). 9. Be not overwise in your own eyes. 10. Easy be in temper. 11. Do not undervalue your smallest fault. 12. Date all your letters.

Kink II.—Conundrums.—1. A list of musical composers is like a saucepan because it is incomplete without a Handel (handle). 2. E Z Z. 3. A Z. 4. C D. 5. C or I. 6. DIT. 7. Fig. 8. Because it is always half peas (p's).

Prize winners—Lucius V. Judson, E. L. Russel and Minnie Libey.

WAS PLEASED WITH PRIZE.

Mrs. Joseph King, of Homer, Mich., was so pleased with the shears sent her as a prize for solving the kinks in our puzzle department, that she sent us the following witty reply, in verse:

"Quite surprised was I
When the postman came by,
To receive such a keen-edged gift.
But I do not feel
That I'm sharp like that steer,
Just a farmer's wife of thrift."

If the 'Kinks' were the cause,
I surely must pause
With wonder at your promptness and favor.

My thanks I send you:
Which is truly your due
For the shears, which I won for my labor."

See pages 542-543 for new free premium offers.

Home Queries Exchange

Column Conducted By
Elisabeth.

Every day there are questions arising in the home that perplexes the wife, mother and daughter, and they wish for some one to advise them. We receive many such queries and for the benefit of our readers we are going to conduct this Exchange Column. Write us what puzzles you and we will do our best to help you. We are going to publish the questions and ask our readers to answer them. No doubt there will be several of you who know just what to do in each case and can give the desired information. In return we will print your questions. Any little points of etiquette, dress or general information, we will answer as soon as possible. Address all communications to Editor Home Queries Exchange Dept., The Michigan Farmer, Detroit, Michigan.

J. E. M.:—If you will feed your hens lard cracknels they will stop eating eggs.
—E. M. B., Kila, Mont.

Kittie M.:—To remove scorch stains rub the cloth with soap, first wetting, then place in the sun. Repeat until spots disappear.—E. R.

If it is woolen goods that is scorched rub with a dampened cloth. This will take off the burnt nap and lessen the bad appearance of it. Of course, nothing will remove a scorch which has burned clear thru the goods.—B. L.

Miss Cora:—If pie is turned out onto a warm plate, and cooled slowly it will not "sweat."—Russel.

Housewife:—For English plum pudding use one and one-half pounds of bread crumbs, two ounces citron, one-half pound of flour, two ounces almonds, blanched and chopped, two pounds suet, chopped fine, two small nutmegs, grated, two pounds curants, two pounds raisins, one lemon, juice and grated rind, two pounds sugar, one teaspoon salt, six eggs, and enough milk to make stiff paste. Mix in order given, put in white cloth, allowing room to swell, and boil for 3½ hours. Stick a sprig of holly in the top, and bring to the table hot. Serve with English sauce. Made as follows: One heaping teaspoon of corn starch. Rub smooth in a little cold water. Do this in a teacup; pour on slowly, stirring all the while, boiling water, as if making starch, until the cup is full. Add a pinch of salt and set it on the back of the stove to keep hot. Then take same sized cup of sugar and one egg. Beat together until very light, in a quart bowl. Then pour in slowly the hot starch, stirring well. Flavor to suit taste. The pudding will keep for weeks, warm up when you want to use, by boiling for about one hour. You can make it in several small puddings, if desired, and use them when desired.—J. M. W.

Dear Editor:—Is the fourth wedding anniversary leather, and what would be nice to carry out the idea in entertaining for that event?—Mrs. J. L., Hudson.

Yes, it is leather; many plans can be carried out for entertaining. Send out your invitations, printed or burned on a piece of leather, or the post card of leather may be utilized. A skin of some pretty color would make a nice centerpiece for the table. A kid shoe may be filled with flowers. Doll slippers filled with candies make excellent souvenirs. If cards or other games are played, have leather score cards which can be punched. Many small articles of leather can be given for prizes.

Dear Elisabeth:—I am to attend a wedding reception in the city. It is my first one and I am anxious to know just what to do. I have never met the bride, but the groom is an old friend of mine. Should I congratulate the bride first or the groom, and should I kiss the bride and groom? Should I shake hands with all in the receiving line?—Country Girl.

The bride's mother will stand first in the line and will introduce you to the bride. Shake hands with her and speak a few words of greeting, as, "I wish you much happiness," or something similar. The bride is never congratulated. Shake hands with the groom and congratulate him. A slight hand-shake and a bow of the head is all that is necessary for the rest of the receiving line. You are not supposed to kiss the bride unless you are a personal friend of hers; nor the groom, unless you are a relative.

Dear Editor:—I would like to have some one tell me what to do for chilblains and cramped pains in toes, so often felt in winter.—Ed. S., Fowlerville.

Dear Editor:—I wish some reader would give me a good formula for making soft soap.—Mrs. R. T., Grayling.



Fill Your Purse

in Arkansas and East Texas as hundreds of others are doing. Farmers, who, like you, have found it hard work to get ahead on the worn out soils of older sections, have transferred their efforts to the rich, virgin lands down there and are quickly becoming prosperous. Their land yields bigger crops than they ever got up north, and it cost them much less per acre. \$5 to \$25 at this time, will buy rich, virgin land there, that will produce from 40 to 50 bushels of corn per acre, 20 to 30 bushels of wheat and big yields of fruit and truck. Do you fully realize how great an opportunity there is

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TO REFOOT A STOCKING SUCCESSFULLY.

There seems to be a great demand for a good way to refoot stockings. There are several patterns for doing so, but the majority of them have a seam across the little toe which is bad, owing to the pressure of the shoe at that point. The pattern shown below has only a very short seam starting from under the toes in the center of the foot and coming up over the top of the toes in between them, where it is not felt. Then another short seam up the back of the heel. The seam which fastens the new foot to the upper part, comes on top of the foot and out of the way of the shoe pressure. It is best to just bring the edges of the seams together and sew them with the in and out stitch and thus avoid a heavy seam.

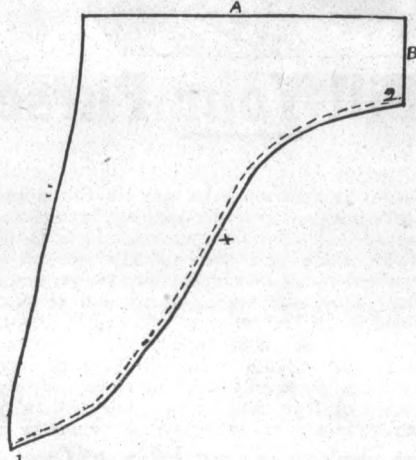


Illustration No. 1 shows the upper part of the stocking cut to sew the foot on. Line A is the ankle, or leg part. Line B is the back of the heel and line C upper part of foot. Place the foot to stocking and sew together along dotted lines marked X, on both patterns, having figures 1 on each pattern, which are the toe ends, come together, and figures 2 on each pattern, which are the heel ends, come together.

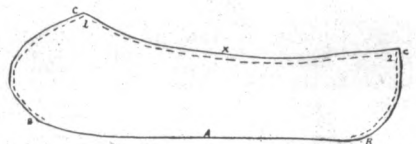


Illustration No. 2 is the foot pattern. Fold the cloth double having the pattern situated to bring the fold along line A, sew up the seams along dotted lines from B to C, which gives you a perfect bottom of a foot.

This is simple and easy to make and does not require cutting away a part of the leg of the stocking as most patterns do, as one can just trim off the old foot and put the new one on in the same place.

CHRISTMAS GIFTS THAT PLEASE.

That some gifts carry a greater degree of pleasure with them than others, is simply owing to the fact that certain ones fit into the requirements of the recipient, while with this lacking, the sense of gratification connected with the gift can never be as keen. We enjoy exactly in proportion as the article presented meets our wants. When by some happy thot on the part of the giver we become possessed of something which we have long desired, the pleasure is intensified many fold over that experienced at receiving an article for which we have no earthly use, yet over which we must make at least a semblance of enthusiasm, so as not to appear rude toward the giver.

To give Christmas presents intelligently is an art; mere dollars and cents will not be sufficient. But the heart of the giver must go with the gift and the selection be made with care to fit the individual.

What to give becomes each year more and more of a problem. Particularly is this true with giving to those who "have everything." True, these persons very likely have wants but to hit upon the right idea and be able to carry it out, is not by any means an easy task. In such a case the person who selects some practical article stands a better show of success than the one who gives fancy ones. A dainty handkerchief rarely fails to be welcome, while an article of a purely ornamental character, such as a vase or a picture might fall far short of its object. A young lady once told me in a burst of after Christmas confidence that she had laid away up-stairs dozens of presents, relics of holidays past and gone for which she had no earthly use. She

valued them because they were the gifts of friends yet it was impossible to make use of all of them. Her room was overflowing with every conceivable article required for it and the surplus had been disposed of as above. Year by year the collection increased in size. That set me to thinking and I determined in future to study well the individual and the gift. For this reason I confess to a leaning toward practical gifts. Handkerchiefs, hosiery, bottles of perfume, selected with due consideration for the personal tastes of the recipient, and of unimpeachable brand, books selected with the same degree of care, all are standard and staple gifts. To this may be added choice confectionery, cut flowers or growing plants and magazine subscriptions. Stationery many persons prefer to select for themselves, as they use one kind only.

Giving becomes instantly simplified when we turn to the children. There we meet little difficulty since little ones are rarely critics and are easily pleased. For them books are among the most desirable of gifts, but in selecting, care should be observed not to buy too many of a childish nature, which will soon be outgrown. The rule, of course, does not apply to quite young children, who would take no notice whatever of a book which contained no pictures, however good it might be. Christmas has become for many a rather strenuous period. Yet not one of us would forego the delightful occasion with its gifts, its feasting and its merry making. It would, indeed, be a step backward to abandon the observation of the day which marks the birth of the Christ altho the tendency is certainly to make of it a holiday and not a holy-day. Of all the days of the year this one should be made one of pleasure for the little folks and no pains spared to fill it from beginning to end with a spirit of good cheer.—E. E. R.

CHRISTMAS DON'TS FOR RECEIVING.

BY EMILY L. RUSSEL.

Don't receive ungraciously, even if you do not like the gift, be polite, this does not necessitate gushing.

Don't boast of the number of your gifts, or parade them before those less favored.

Don't keep them on exhibition for a fortnight calling the attention of every chance visitor to them. Nothing could be in worse taste.

Don't make fun of anything that is given you, or tell how valuable your gifts were to others.

Don't rush off to send a present in return for one received, as if it were sent C. O. D.

Don't put off writing your note of thanks too long, and don't write at too great length, or too effusively. Don't describe an article as "too sweet for anything,"—it might be construed as mild sarcasm.

MEAL-TIME AT OUR HOUSE.

Our meal-times are the queerest times. Cook says, "Shure, but yese be a bother."

For almost every one of us
Has got some funny fad or other.
Ma, she takes pre-digested food.
She thinks it's splendid breakfast diet,
An' wishes we all had the sense
To give up other foods an' try it.

My brother James thinks "Fletcherism"
Is curing him of indigestion.
He chews an' chews his food, an' says
It's a great fad beyond all question.
Aunt Fanny's taking the "grape-cure."
Her cheeks is getting red as roses.
An' Grandpa dotes on buttermilk.
Says it beats all the doctor's doses.

An' Sister Grace she don't eat much
At home. Just nibbles things an'
munches.
She's "in society" this year,
An's out to parties, teas an' lunches.
Gramma skips dinner twice a week.
She says her life is just a bubble,
Because she's very much afraid
Her heart has some organic trouble.

My Brother George he vows that meat
As food for man was not intended;
He sticks to vegetarianism
As if his life on it depended.
An' Cousin Belle who's always had
A rather sickly constitution
Says that four light meals a day
She's found at last the health solution.

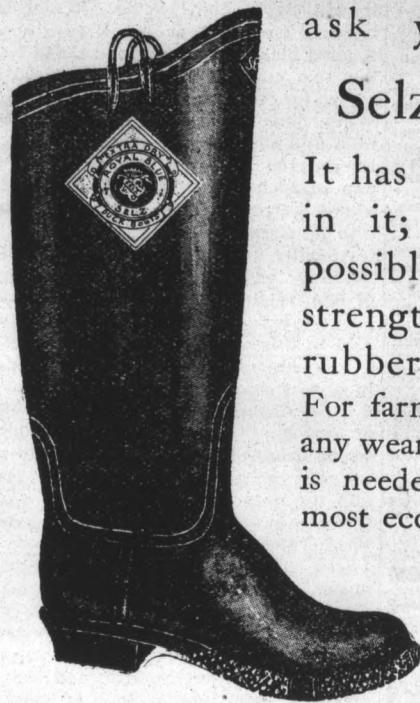
An' Sister Polly she "eats air."
She's 'fraid she'll have tuberculosis.
She takes hot water every meal,
An' forty-leven other doses.
My great-aunt Jane eats fruit an' nuts,
An' my, how awful thin she's growing;
But Pa, the toughest of us all—
He eats just anything that's going.
—Alice Jean Cleator.

POOR BIRD.

The turkey looks around and sighs:
"What is the use of living,
When Christmas makes a grab for what
Is not devoured Thanksgiving?"

See pages 542-543 for new premium offers.

If you want the best rubber boot you ever wore, ask your dealer for Selz "Irrigation"



It has the real Para rubber in it; made in the best possible way, with special strength at the points where rubber boots first give out. For farm work, irrigation work, any wear that a good rubber boot is needed for, it's the best and most economical made.

Dealers sell it. Ask for Selz "Irrigation," and if your dealer hasn't it, write to us about it.



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The most useful of kitchen helps—an invaluable aid in sausage making. It actually cuts anything that goes through it—meat, fish, vegetables, fruit, etc. Strong and simple. Made in 45 sizes for hand, steam, and electric power. No. 5, small family size, \$1.75. No. 10, large family size, \$2.50. Also makers of "ENTERPRISE" Bone, Shell and Corn Mills, Sausage Stuffers and Lard Presses, Coffee Mills, Raisin Seeders, Fruit, Wine and Jelly Presses, Cherry Stoners, Cold Handle Saws, etc.



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New Model with Ball Bearing Head and Stand—Automatic Tension Release—Automatic Lift Drop Head—High Arm—Oak or Walnut Table.

We Pay the Freight and Allow 90 Days' Trial



Our new model, improved Mich. Farmer sewing machine has cam thread take up, giving better control of the thread and making a better stitch than any other arrangement. Running it backwards will not break the thread. It has highest arm, disc tension, automatic bobbin winder with loose band wheel, high lift for heavy work.

Guaranteed for 20 YEARS.

and money refunded if not satisfactory after 90 days' trial. Complete attachments, accessories and illustrated book free. We guarantee this machine to be first-class in every particular, handsome in appearance and equal to any machine made. Same machine without the automatic Lift for only \$18.

Good Machines as low as \$12.

For \$7 extra will send the \$19 machine with automatic lift in a handsome cabinet frame. We prepay freight to any freight station east of the Mississippi River, or south to Tennessee. You cannot afford to buy a machine until you have sent for our handsome illustrated free catalog, printed in colors.

THE MICHIGAN FARMER, Detroit, Mich.

To Stop a Cough In a Hurry.

With this recipe you can make a pint of cough remedy at home in five minutes. A few doses usually conquer the most obstinate cough. Simple as it is, no better remedy can be had at any price.

Put 2½ oz. of Pinex (fifty cents' worth), in a clean pint bottle, and fill up with Granulated Sugar Syrup, made as follows: Take a pint of Granulated Sugar, add ½ pint of warm water and stir for 2 minutes. Take a teaspoonful every one, two or three hours. The taste is very pleasant—children take it willingly. Splendid, too, for colds, chest pains, whooping cough, bronchitis, etc.

Granulated Sugar makes the best syrup. Pinex, as you probably know, is the most valuable concentrated compound of Norway White Pine Extract. None of the weaker pine preparations will take its place. If your druggist hasn't the real Pinex, he can easily get it for you.

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

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Brand of iron cut nails. They will last a life-time.

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Whether Cow, Steer, Bull, or Horse Hide, Cat, Dog, Deer, or any kind of hide or skin, soft, light, odorless and moth-proof for robe, rug, coat or gloves, and make them up when so ordered. But first get our illustrated catalog, with prices, shipping tags and instructions. We are the largest custom fur tanners of large wild and domestic animal skins in the world.

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

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THE LARGEST AND BEST LINE OF WELL DRILLING MACHINERY

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

FUR COATS and ROBES

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

OKLAHOMA WORLD—Greatest weekly in the West. Featuring Cheap Land—Full State News. Special Christmas offer 25c, 6 months. Address "WORLD" Department B. Tulsa, Okla.

THINKS FARMERS COULD IMPROVE.

The coming of Dorothy Hudspeth to the pages of the Michigan Farmer several issues back seems to have created something more than a mild sensation among the readers of the paper, in the writer's immediate vicinity. She doesn't go "round Robin Hood's barn" to state a plain fact, and her criticisms of the all too common viewpoints of many present day farmers and their families on questions of general interest have been peppy and not at all obscure. As to whether or not they have been just and accurate is the contention which is causing some heated discussions.

The writer is country born and has spent practically all her life on a farm, so she knows whereof she speaks, and she heartily indorses Dorothy's article in the issue of November 27 on "The Country's Attitude Toward Life's Refinements."

Of course, exceptions to this general scoring are manifold, yet the attitude of a majority of the dwellers on small farms today toward all evidences of gentle breeding is that of scorn. Table etiquette may do very well for the younger children's "company manners," but bread and butter plates are "stuff and nonsense" to the head of the house; who, if he so wills, uses his individual knife, fork or spoon to help himself from any article of food on the table.

His attitude in the face of disapproval is "what's good enough for me is good enough for anybody;" "no use in fussin' about such fool things."

This eminently selfish viewpoint, "What's good enough for me is good enough for anybody," is the keynote of such people's existence. They have absolutely no appreciation of anything which is not a necessary element in their daily existence.

The writer has known farmers and farm hands, who have evidently not considered it commensurate with their dignity to take a bath oftener than once a year. "They were clean," they always washed their hands and faces before meals. Farming was dirty work. What could you expect? Imagine a woman married to such a savage! Reeking with the odors of stale perspiration, the stable and tobacco, could he be anything but disgusting to a womanly woman? Many country people still decry the line of demarcation between "honest country toilers" and "uppish city people." Could they but realize the fact, the mote as often as not is in the country dweller's eye. There is, on the whole, a broader charity toward their faults; a more thoro appreciation of their values and a more helpful spirit evidenced by city people toward their country brethren today, than has ever been shown by the country people toward the city dweller.

It would add to the happiness of everyone, no matter where he dwells, to pay more heed to life's little refinements, for these give evidence of gentle breeding, and good breeding is the inborn consideration for the happiness of others; a taking care not to offend one's neighbor nor yet those of his own household.

"EMBERS."

Owosso, Dec. 2.

A WARM DEFENSE FROM LAINGSBURG.

I would like to say a few words to Dorothy Hudspeth in regard to the article by her which was printed in the Michigan Farmer of November 27. I would like to enlighten her about the ways and manners of the present average farmer, for she evidently knows nothing whatever about the subject on which she wrote.

The farmers of this community, I should judge, are among the average farmers of Michigan. We count our best friends among these farmers and in justice to them and to my family, I would say that their manners are in no way similar to those described by her as the average farmer's manners.

Among my ten nearest neighbors there are five who always raise their hats when they meet me; and the others always have a friendly word of greeting. We value the friendship of the latter fully as much as that of the former. I have seen city men who make it a practice to raise their headgear to ladies and who, no doubt, know how to dip their soup and when to use their oyster forks, take a seat in a street car, and with a newspaper stuck up in front of them and a look of blissful unconsciousness on their face, keep that seat while there are ladies standing. Of course, I like to see men raise their hats to ladies, but the farmers

are not the only ones remiss in gentlemanly manners; and the mere raising of the hat does not always show homage and reverence to women.

I have lived among farmers all my life and I do not remember of ever seeing any of them carry food to their mouth on their knives or suck tea out of their saucers. Nor have I heard any smacking and grunts that Dorothy Hudspeth mentions. Neither has the housewife appeared to be so very "tired and overworked," or "long suffering."

Of course, I have seen the women tired, and more or less haste in eating among the farm folks, but no more than I have seen among people of other occupations.

No, Dorothy Hudspeth, the eating with the knife, the tea sucking and the smacks and grunts among the average farmers, disappeared about the time that the old log cabins and the oxen did. You also speak of the contempt the farmer has of the ways of the "better class." Now, let me tell you, there is no better class than the farmers. There may be a richer class, and there may be a class who think they are better, but there is no "better class." We would like to have you take a trip out here among us, and altho you may find people who may have oysters for dinner and use no oyster forks at all, your refined sense will not be offended by their eating with their knives and sucking their tea. You will find clean, honest, industrious, cheerful, generous, educated, wide-awake people, who will make you welcome and who will not scoff if you have on your best clothes and your husband wears a collar and tie and patent leather shoes.

Laingsburg.

E. B. A.

POSTAL CARDS FOR THE SICK.

BY IRMA B. MATTHEWS.

A number of girls were discussing ways and means to cheer one of their number who was confined to her home by a long, tedious illness.

"We cannot visit her often," declared one, for she is so weak it tires her, yet I know she is often lonely."

"We could send flowers—" began another, "but—"

"Don't," interrupted May Harvey, "you know sick people are liable to have fancies and she does not like cut flowers because she says they all die. If you send any be sure they are growing plants, but I have an idea."

"What is it?" cried the rest, for May's ideas were usually worth while.

"Post cards."

"Post cards!"

"Yes, we could take turns so that she would receive one every day with some message written on. I believe she would enjoy that."

The idea was voted a good one and the next day the first card was handed the invalid. She was delighted and read it many times, then placed it where she could see it. The next day another came, and then another and another. She soon learned to watch eagerly for them and to wonder what they would be. Not only was it a pleasant break in the day, but as the collection increased, they were a source of never ending delight, and now that she has fully recovered they are among her dearest treasures.

At another time, wishing to remember an invalid friend at Christmas time, they gave her a post card shower. All her friends were invited to contribute to this and how the sick one did enjoy the remembrances. She went home before another Christmas, and they were glad, indeed, that they had made one spot of brightness in her life and in a manner that was no burden to the givers.

A UNIQUE DOLL.

Last Christmas I made a cute doll in the following manner: I took a piece of calico, doubled it and cut it in the shape of a doll's body. I sewed it together all around except one side which I left open so as to stuff it with cotton. Then I sewed it up. Paint the face and hair, crochet a dress and slippers of pretty yarn and it made a nice doll for a gift for a little one.—M. A. P.

FOR A DAILY.

There is nothing published better than The Detroit Times. We send The Times and the Michigan Farmer a year each for only \$2.50, including a Class A premium. Send all orders to the Michigan Farmer.

See pages 542-543 for new free premium list.

Quick and Lasting Cure for Pimples

A Remedy Which Has Met With Astounding Success In Curing This Disease.

Acne, or pimples, is an eruption very frequently seen upon the faces of young people in their teens, although it may occur earlier or later than this period, in fact at almost any age.

This disease exhibits itself in the form of unsightly papules and pustules, commonly called pimples. Comedones, or blackheads, is often complicated with this disease, and add considerably to the unsightliness of the face afflicted with them.

Sometimes there are only a few irregularly situated pimples on the cheeks, forehead or chin, while in other cases, where the blood is extremely impure, the entire face becomes literally peppered with them, giving the countenance a most repulsive appearance, and exciting much unfavorable and derogatory comment and criticism by people on the streets and elsewhere.

Pimples are caused, secondarily, by an inflammation of the sebaceous glands and pores, while the primary, or underlying cause, is undoubtedly a depraved, morbid condition of the blood, and is a sure indication that the latter is filled with all sorts of impurities which should be eliminated from the system.

The purchase and application of salves, ointments, jellies, cold creams, etc., is a waste of time and money, for a blood disease cannot be cured by applying a medicament to the skin.

All persons who suffer from pimples, boils, carbuncles, eczema, skin blotches, ulcers, scrofula, scurvy, and all other skin diseases arising from an impure and impoverished condition of the blood, should use STUART'S CALCIUM WAFERS, a remedy, the chief ingredient of which is calcium sulphide, the most powerful alterative and blood cleanser and purifier in existence.

Many persons, after trying all sorts of remedies, local and general, have finally used these wafers, and have been completely cured of pimples, boils, and any other skin and blood diseases from which they were suffering.

In the treatment and healing of old ulcers which have long resisted every other form of treatment, Stuart's Calcium Wafers have been pre-eminently successful, while in old running sores, and pimply humors of the scalp with premature loss of hair, they have met with equal success.

Purchase a 50c box from your nearest druggist, and forward your name and address to the F. A. Stuart Co., 175 Stuart Bldg., Marshall, Mich., for a free sample package.

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Guide Book on Patents and What to Invent sent Free. C. PAGE JONES & CO 709 9th St., Washington, D.C.

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and also give you a share of the profit we make when we resell. Our new Profit-Sharing Plan makes Kamm Returns larger than you would get elsewhere. Fair treatment guaranteed by our 20 years of fur buying. Express charges paid and settlements made immediately. Write today for Price-list and Profit-Sharing Plan.

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Malted from choicest Montana Barley, shipped in strong airtight drums, at..... **6c per lb.**

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10¢ TO LADIES
We will send
OUTFIT for STAMPING
6 DOILIES
For Dining Table or Mantle Shelf
each in new beautiful design
Post Paid for 10¢
D. R. Vaux Co. 31 Monroe Ave. Detroit, Mich.

POULTRY AND BEES

TRAP NESTS FOR HENS.

The trap nest is to the poultryman what the Babcock test is to the dairyman. That is, the trap nest will eliminate the poor hens as well as the Babcock test will show the dairyman the poor cows in his herd. However, it is easier to build up a good laying strain of fowls than it is to build up a good milk strain of dairy cattle.

There are many kinds of trap nests on the market and probably more kinds that are not on the market but have simply been devised by a practical poultryman for use in his own houses. Some of the nests that I have seen are very clever in the way they catch the hen, but I have never seen one that will rid the poultryman of the trouble of letting the hen out after she has laid the egg. If such a trap nest could be made it would be a great help. One of the reasons why trap nesting is not carried on much outside of the experiment stations and by a few who have much time to give to the poultry, is the fact that the almost continual presence of a man is necessary to get proper results. The hens can not be confined in the nest for many hours after

and out again without laying, as they often do, and they will not be retained until they have laid.

The trap nest, like any other nest, should be placed in the most secluded place in the henhouse, so that the fowls will be as little disturbed as possible. The fowls should become accustomed to being disturbed frequently before the real test is made. They are quite likely to drop off in egg production for the first few days of being handled, but they will soon become accustomed to it.

Ingham Co.

E. B. REID.

SOME LAYERS' RATIONS, AND RESULTS THEREFROM.

I note Mr. Reid's article and editor's request for rations, results, etc., in the Michigan Farmer for November 27. In the first place, I do not believe in copying your neighbors' rations for your hens, unless you copy them from the start in raising your stock. I am firmly of the opinion that chickens like best what they have become accustomed to, provided the ration is an intelligently compounded one.

The last thing I should think of doing would be to make any radical changes in the ration at or near the time I expected the pullets to begin laying. What will bring eggs one fall, will, under like conditions of age and condition of stock, bring eggs the next fall, if the breed to

shall be glad to advise Michigan Farmer readers from time to time as to what they are doing, as, really, if the method is practical, it means less work. I shall be glad also to see the reports of flocks which I hope the editor's note will bring.

Maine.

D. J. RYHER.

BEEKEEPING AS A WOMAN'S OCCUPATION.

Since it does not require either hard physical labor, or any previous special training, but does call for the distinctly feminine traits of patience, tact and watchfulness; and since it promises in return both pleasure and profit, bee culture seems to me to be an almost ideal occupation for the woman who wants to emulate the busy bee and improve each shining hour. Aside from its attendant pleasure and profits, there is a peculiar fitness, in that a bee-hive is a living illustration of the applied principles of women's rights. In the bee colony the male is a necessary evil, or an evil necessity. He is hatched from an inferior egg, lives thru a neglected infancy, reaches a despised maturity, has his little day and is promptly pushed off the boards. To this rule he has no choice but to submit, since he is provided by nature with no weapon of self defence in the shape of a sting, and does not even possess a tongue, tho this perhaps would avail him little against so strong a feminine majority. Under this domestic feminine sway, the kingdom is ruled both well and wisely; so perfectly, indeed, that a bee-hive has always been held up as a model of good government. The woman who would prove the justice of her claim to a voice in the affairs of a nation, has her enemies on the run if she has her bee-hive in good working order. It is an irrefutable argument on her side of the question.

But while a woman would scarcely become a beekeeper for the sake of proving an argument, she might well do it for the sake of the pleasure, aside from the thot of the considerable profit which the occupation yields. Bee culture requires no great outlay of strength at one time, but to be a success there must be a faithful performance of many little duties. I would advise all who wish to keep bees to procure modern hives and fixtures. Section honey is so much more attractive and nice to eat than the honey that is taken from the old-fashioned box-hives, filled with pollen, that there is no comparison; and so with extracted honey in comparison with what is termed strained honey.

New Jersey.

F. G. HERMAN.

Great Demand for Telegraph Operators. The great building activity, both in the railroad and steamship line, has created a big demand for telegraph and wireless operators. There is but one school of note where this profession can be learned, that is the Dodge Institute of Telegraphy, at Valparaiso, Indiana. A great many young men from all over the United States, who are graduates of this school, have been placed in very fine positions. Mr. P. F. Godley, chief instructor in this school, is known as one of the best operators in this country. Those who are interested can secure a catalog by writing to them.

Durable Nails.

In this week's issue there is an advertisement of the Malleable Iron Fittings Co., Branford, Conn. They advertise zinc coated nails. They have been manufacturing these nails for about 30 years. They cost no more than other kinds, and last a great deal longer. They are rust proof and are much preferable to other kinds. If our readers do not find them on sale in their town, would suggest their writing to the manufacturers or have their dealer do so. While nails are not very expensive, the lasting qualities of a nail makes a lot of difference.

Only Folding Sawing Machine.

Any man can make practically double wages sawing wood and do it with less work than in any other way. This machine is a high-class machine in every particular and in workmanship and guaranteed for three years. It has been in successful use by thousands and thousands of practical men for over seventeen years. It is easy to carry from place to place. Quickly changed from one log to another. No ax needed among limbs. No back-breaking work. It's the fastest saw. Will do twice as much work as an ordinary saw and is instantly adjusted. It is the easiest running saw and the thinnest saw of finest steel. Just send your name today, on a postal card or by letter to the Folding Sawing Machine Co., 158-164 East Harrison Street, Chicago, Ill., U. S. A., and you will promptly receive their splendid catalog free, and their special price proposition to you which you cannot afford to overlook. They will also make you an offer of exclusive agency for representing them in calling attention of your neighbors, to the folding sawing machine and making good profits on any sales that are made in this way, after you get your machine. Be sure to write today.

See pages 542-543 for new free premium offers.



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When a Woman speaks of her silent secret suffering she trusts you. Millions have bestowed this mark of confidence on Dr. R. V. Pierce, of Buffalo, N. Y. Everywhere there are women who bear witness to the wonder-working, curing power of Dr. Pierce's Favorite Prescription — which saves the SUFFERING SEX FROM PAIN, and successfully grapples with woman's weaknesses and STUBBORN ILLS.

IT MAKES WEAK WOMEN STRONG

IT MAKES SICK WOMEN WELL

No woman's appeal was ever misdirected or her confidence misplaced when she wrote for advice, to the WORLD'S DISPENSARY MEDICAL ASSOCIATION, Dr. R. V. Pierce, President, Buffalo, N. Y.

Dr. Pierce's Pleasant Pellets
Induce mild natural bowel movement once a day.

WANTED—FURS and HIDES.
We pay you the price on our list. No more. No less! Write for price list and tags. H. M. PETZOLD, 1033 S. Claremont Ave., Chicago, Ill.

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SAFE HATCHER
FREIGHT PREPAID
BIGGEST value of the year. Get new low, delivered prices on all sizes of famous **Ideal** incubators. Send your name for Free Book. Incubators. Metal-covered all round, self-regulating and ventilating. Safest and surest. Delivered free east of Missouri River and north of Tennessee. Write for delivered prices to points beyond. Lowest prices on Brooders, too. Send for free book today. J. W. MILLER CO., Box 300, FREEPORT, ILL.

90% Hatches
from the Cyphers—in every country and climate—for old-timers and beginners. For you. **CYPHERS INCUBATORS** and Brooders are non-moisture, self-regulating, self-ventilating. Write for 160-page Catalog. Address Nearest City. Cyphers Incubator Co., Department 35, Buffalo, N. Y.; New York City; Chicago, Ill.; Boston, Mass.; Kansas City, Mo.; Oakland, Cal.

EGGS 1c. A DOZEN.
It costs 1c a dozen to preserve eggs from one to two years by using the Yuell Chemical Co.'s Egg preservative. Cannot distinguish them from newly laid eggs. Send for Circulars. **YUELL CHEMICAL Co., Dept. C. NAPERVILLE, ILL.**

The Best in Barred Rocks, White, Silver and Golden Wyandottes, R. C. and S. C. White, Brown and Buff Leghorns, Silver Spangled Hamburgs, White Guineas \$1 each in lots to suit. Bronze, Buff and White Turkeys, all varieties of Geese and Ducks, largest and best collection at State Fair in 1909. E. J. HASKINS, Pittsford, Mich.

BARGAINS, TILL JANUARY 1.—Buff and White Orpingtons, B. Rock, W. C. B. Polish, Houdans, S. C. Black & R. C. White Minorcas cockerels, \$1.50 each, few left. Satisfaction or money back. **H. H. KING, Willis, Michigan.**

BARGAINS in S. C. Brown Leghorns, 100 yearling hens \$1 each, best flock in Mich. First comes gets the pick. Order from this ad. Satisfaction. **FRED MOTT, Lansing, Michigan.**

SILVER Laced Golden and White Wyandottes. A fine lot of young stock all bred from prize winners. **C. W. BROWNING, Portland, Mich.**

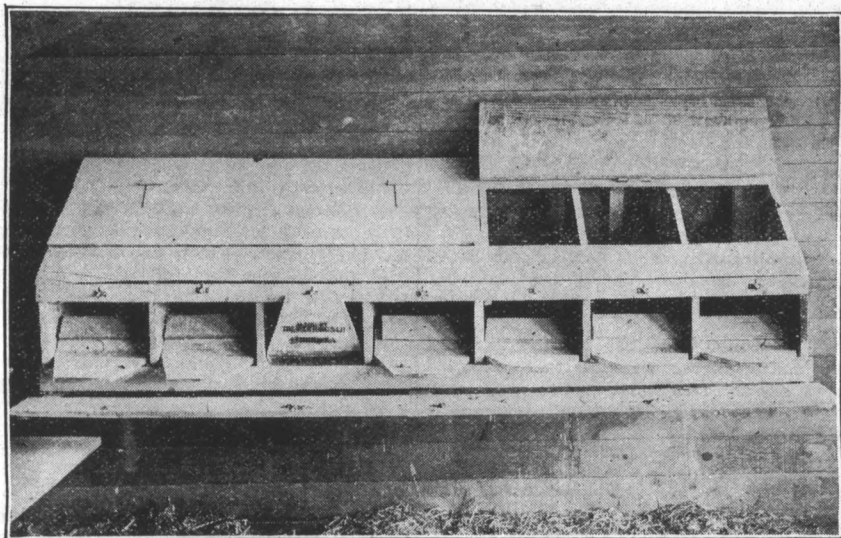
WHITE WYANDOTTE cockerels \$2.50, \$3, \$3.50, from heavy layers and State Fair prize winners. **A. FRANKLIN SMITH, Ann Arbor, Mich.**

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TRAINED FOX HOUNDS and Hound Pups for hunting fox and coons. Also Collies. Inclose 2-cent stamp. **W. E. LECKY, Holmesville, Ohio.**

FERRETS.
5,000 Ferrets Always buy Michigan ferrets, they are stronger and better climate. Price list and dir. free. **DeKleins Bros, Box 41, Jamestown, Mich.**

4,000 FERRETS—They hustle rats and rabbits. Prices and book mailed free. **N. A. KNAPP, Rochester, Ohio.**

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One of the Many Styles of Trap Nests Now Used by Discriminating Poultrymen.

they have laid and still be expected to do their best at egg production, and since, when the trap nest is being used, the hen is supposed to be doing her best, she should be assisted in every way.

The method of making a record of the number of eggs laid by a certain hen is simple enough. After the hen is confined in the trap nest and has laid an egg, the poultryman releases her after taking the number on her leg band. The egg laid is credited to the hen wearing that leg band number and at the end of the period of testing the total is easily obtained.

Many people who raise only a few fowls think that trap nesting is a lot of time wasted, but it is not time wasted any more than is the time taken to test a dairy cow for the amount of butter-fat she gives in seven days or a month or year. The owners of cattle pay a tester two dollars per day and board and railroad fare. It would seem that the poultryman could afford to run his own test.

Most trap nests are built so that the weight of the hen closes the door to the nest and she can not get out until released by the poultryman. In some instances the doors of the nests are hooked open so that the pressure of the hen upon them when entering is sufficient to release the spring or hook holding them. Another kind has a door made of two pieces of metal which are hinged in the center and the lower half is swung up to the top of the nest; the hen in entering bumps her back against the hinge part of the door and releases the upper section which swings into place, closing the nest. One very practical nest I have seen is one in which the door is hung on a pivot, the front or top of the door swinging down so that it forms an approach to the nest as shown in the illustration. The part which is inside of the nest is weighted so that the outer end will swing up into place more readily when the hen steps on the other end. When swung into place the door catches at the top and can not be opened by the hen. Then there is still another kind of nest which is so constructed that the door does not close until the egg has been laid. This nest has an advantage over the others in that the hens may go into the nests

which the feed is given be the same. Of course, we do not expect a Barred Rock or Buff Cochins to be as near laying at five months old as a breed whose standard weight is one to three pounds less.

I will give my rations, or the amount and kinds of grain fed, during the past two winters for December, January and February; also number of hens, number of eggs, feed cost and egg sales, for comparison with others who may furnish similar information regarding their methods and operations.

Grain fed to 70 Rhode Island Red pullets, December, 1907, January, 1908, and February, 1908: Wheat, 800 lbs; meat scrap, 60 lbs; whole corn, 672 lbs; corn meal, 250 lbs; coarse wheat bran, 300 lbs.

	Eggs gathered.	Feed Cost.	Sales.	Profit.
December ...	633	\$12.18	\$20.28	\$ 8.10
January ...	995	9.90	22.48	12.58
February ...	917	9.05	18.16	9.11

Three mos...2,545 \$31.13 \$60.92 \$29.79

Grain fed to flock of 220, about half Reds and half Rocks, December, January, and February, 1908-1909: Wheat, 1,900 lbs; meat scrap, 280 lbs; whole corn, 784 lbs; corn meal, 700 lbs; coarse bran, 400 lbs; cracked corn, 800 lbs; alfalfa meal, 200 lbs; charcoal, 50 lbs.

	Eggs gathered.	Feed Cost.	Sales.	Profit.
December ...	1,351	\$30.73	\$46.32	\$15.59
January ...	2,140	30.27	61.93	31.66
February ...	1,542	25.75	38.74	12.99

Three mos...5,033 \$86.75 \$146.99 \$60.24

It will be seen that the showing for the 70 Rhode Island Reds was considerably better than for the mixed lot. I do not consider that it was any fault of the feeding, but rather that it was due to the difference in the stock.

The Reds had been selected and trained for winter laying, while the Rocks were purchased fowls that had had no kind of intelligent handling at all. Besides, I consider it more difficult to get Rocks down to business as early as Reds, even tho they have been bred for fall laying.

I will say regarding the dry-mash-fed pullets mentioned in November 27 issue, that they are starting laying a little better, in proportion to the number I have, up to this writing (November 30), than my moist-mash-fed ones did last fall. I

MICHIGAN CROP REPORT.

Wheat.—The condition of wheat as compared with an average per cent is 92 in the state and central counties, 90 in the southern counties and Upper Peninsula and 95 in the northern counties. One year ago the per cent was 75 in the state, 76 in the southern counties, 66 in the central counties and 83 in the northern counties. The total number of bushels of wheat marketed by farmers in November at 137 flouring mills is 207,732 and at 107 elevators and to grain dealers 149,022, or a total of 356,754 bushels. Of this amount 225,905 bushels were marketed in the southern four tiers of counties, 108,469 in the central counties and 22,380 in the northern counties. The estimated total number of bushels of wheat marketed in the four months, August-November is 5,000,000. Fifty-nine mills, elevators and grain dealers report no wheat marketed in November.

Rye.—The condition of rye as compared with an average per cent is 91 in the state and central counties, 90 in the southern counties, 94 in the northern counties and 92 in the upper peninsula. One year ago the per cent was 79 in the state, 80 in the southern counties, 73 in the central counties and 84 in the northern counties.

Live stock.—The condition of live stock throughout the state is 96 for horses, sheep and swine and 95 for cattle.

Fall Pasture.—The condition of fall pasture as compared with an average per cent is 77 in the state, 75 in the southern counties, 76 in the central counties, 83 in the northern counties and 88 in the upper peninsula.

NATIONAL CROP REPORT.

The Crop Reporting Board of the Bureau of Statistics of the United States Department of Agriculture estimates from the reports of the correspondents and agents of the bureau, that the newly seeded area of winter wheat is 7.9 per cent more than the revised estimated area sown in the fall of 1908, equivalent to an increase of 2,449,000 acres, the indicated total area being 33,483,000 acres.

The condition of winter wheat on December 1 was 95.8, against 85.3 and 91.1 on December 1, 1908 and 1907, respectively, and a ten-year average of 91.5.

The newly seeded area of rye is estimated as being 1.2 per cent more than the revised estimated area sown in the fall of 1908—equivalent to an increase of 25,000 acres, the indicated total area being 2,155,000 acres.

The condition of rye on December 1 was 94.1, as compared with 87.6 and 91.4 on December 1, 1908 and 1907, respectively, and a ten-year average of 93.9.

Details, by states, of the above crops will be published in the December Crop Reporter.

The final estimates of the total acreage, production, and farm values of principal crops for 1909 will be issued on December 15.

CROP AND MARKET NOTES.

Washtenaw Co., Dec. 9.—Winter has come in earnest. The long spell of fine weather came to a very sudden end on the 5th and since that date we have had very severe weather but fortunately farm work was mostly done. A very small per cent of corn in the fields—five power huskers within a radius of two or three miles have enabled the farmer to get everything under cover. Crops have yielded very satisfactorily; corn more than an average crop; potatoes around 150 bu. per acre, and largely sold before the drop in price. Hogs scarce and breeding stock especially hard to find. There has been more fall plowing done than I ever remember to have seen, so farmers generally will be in a position next spring to hurry things. More farms have changed owners in the last year than in ten previous years and at an increased price, which goes to show that farming is getting to be considered one of the best paying propositions and I much doubt if we shall ever see farm lands, grains or meats much lower than they are today, so that we as farmers have much to encourage us in the outlook on these closing days of the year.

Kent Co., Dec. 11.—There is now snow sufficient to cover the crops, and sleighs run fairly well. Times are quiet. Here in the potato belt times fluctuate with the price of potatoes. With potatoes at the 50c mark we should be enjoying lively times. Farmers are not inclined to sell potatoes at present prices. A change must come soon if the usual life in the holiday trade is to be realized. Little stock is being fed for market in Kent county this year. A few farm sales have been held, the most noticeable feature of which was the high figure at which hay and grain sold. Clover hay was bid up to between \$14 and \$15 per ton. Many are shredding cornstalks as a means of aiding the hay mow. Should a mild winter ensue present stringent feed conditions will soften up later in the winter season. Cows for next year's cream trade are likely to bring fancy prices.

Livingston Co., Dec. 4.—The weather during November was all that could be desired and farmers have their fall work well out of the way. More plowing has been done this fall than for several seasons. Corn was a much better crop than was anticipated and it is practically all cribbed at this date. Clover seed that has been threshed is yielding well. Hogs are being rushed to market and Christmas will find very few hogs left to market. Very little grain is being marketed, farmers holding for higher prices. Many farmers are investing in manure spreaders, showing the popularity of these labor-saving and soil-improving machines.

BRIGHT OUTLOOK FOR SHEEP

The ray of light that was discernable on the horizon of the sheep and lamb trade recently has developed into a bright, glowing sun and cloudless sky. Buyers are unable to conceal their urgent wants.

The outlet for mutton and lamb meats is again broad. This is a logical sequence of high priced beef and pork and practically the close of the western range shipping season. The general range of prices is the best in about a month. Tops lately made \$7.85 for lambs, \$7 for yearlings, \$5.25 for wethers and \$5 for ewes, indicating and advance of 50c to 75c over the recent low time of the season and 90c gain for sheep and around \$1.50 advance for lambs over one year ago. There is no fear of serious domination of the trade by buyers if marketing is judiciously done. The visible supply is by no means burdensome. The only apprehensions regarding the near future trade is that too many half-fat natives and westerns will be thrown upon the markets in the event of stormy weather and liquidation by weak-kneed owners. About this time of the year there is usually a heavy supply of ovine stock marketed that has been taken off grass and given a slight introduction to corn. If there ever was a time when longer and better feeding of thrifty, half-fat sheep and lambs paid it will be this winter. Buyers will continue eager takers of well-fatted offerings at relatively strong prices. But partly-fatted kinds will meet with narrower outlet. Buyers will make every effort to widen the spread between these two classes. A wise course to pursue this winter will be to let the fat lots come as fast as practicable and to hold back those in plain or medium flesh until they attain better condition.—Clay, Robinson, & Co.

Light on Buggy Buying.

New light on the buggy question is being given the public. So many wonderful claims have been made for low priced pleasure vehicles. Many offers have been held out and so much experience has been garnered, that the prospective purchasers may well ask what it all means. Naturally competition has produced recklessness in one quarter and another. Claims have become more startling and offers more and more and more "liberal." Buyers have become correspondingly wary. It is realized that a well known name and reputation are the only safe guide. Cautious buyers are now demanding even more than these. They insist that the firm shall have a representative within easy reach to whom they can go in case they are dissatisfied. The Michigan Buggy Company says some interesting things on this subject in its full page advertisement in this issue. This famous firm's advertisements are attracting attention the country over. Weight is given to its assertions by its enormous business covering a period of 26 years. "Reliable Michigan" is a household word among vehicle men. Incidentally 256 styles are offered this year by the Michigan Buggy Company. These include every kind of horse-drawn pleasure vehicle, buggies, phaetons, two-seated carriages, sleighs, pony-carts, etc. These as well as the famous Hold Fast blankets are described in the handsome new catalog which will be sent free to any reader on request. Address Michigan Buggy Co., Kalamazoo, Mich.

Suggestions.

The time of the year is at hand when farmers who have silos have already begun to feed out of them, and we are satisfied that these people that have silos are making a large saving in the cost of feed, and this is the time of the year for those people who are feeding their animals dry food of all kinds to go to the feeder of ensilage and see what he is doing, compare notes. We suggest this action because we are so thoroughly well satisfied that the grower of corn has got to come to the use of the silo. Now we are not advocating any particular construction, altho we believe the stave silo, all things considered, is the cheapest on the market today. We know that is all right, but the feeding of ensilage has got to come because we find that it covers a greater field each year and our idea about the purchase of the silo would be the sooner a man puts it in the less it will cost him because he cannot expect to buy suitable material for any less money than he can today, and as this is the time of the year when a man should have a little leisure, if any time, he can make up this matter, get posted, look into it, and determine what he wants before he decides how he will plant his corn, or before corn planting.

Potash For Sale to All.

Farmers who farm on bus principles and fertilize their soils as a manufacturer puts money into a plant, for investment—have never needed much argument to be convinced that "Potash Pays," as the German Kali Works puts it. The trouble for the farmer has been not only the price, but the difficulty of getting potash at any price. The manufacturers have heretofore absorbed it all. All this has been changed, and thousands of farmers who farm for profit rather than for mere wages and a living, will not be able to buy all the Potash Salts they need, in any quantity they want it, of local dealers everywhere. And not only this—but they can get it at lower rates than have ever before been charged. This means that farmers can now invest in plant foods that they themselves can buy and mix—fertilizers without fillers or make-weights—and put the money saved from interest, freight, excessive profits on fillers and mixing charges into so much more actual crop-making fertilizer. The great German potash mines are now producing enough potash to enable the American selling agency to guarantee delivery of all that is required both by fertilizer manufacturers and local dealers and farmers. Ask your dealer to carry these invaluable salts in stock. Tell him to write to the German Kali Works, Continental Building, Baltimore, for particulars and prices. And we recommend you to write to them also, for their "Farmers' Note Book" and their valuable literature on fertilizing and cultivation. Mention what crops you are most interested in. It will pay you to do it. And see your dealer the next time you are in town.

80 to 100 Bushels.



Don't be
Satisfied
With Less



Feed your Corn and you will get this yield

Land must be renewed just as intelligently as you feed your live stock, to get results.

No grain crop takes so much from the soil as corn. Nitrogen, phosphorous and potash are the food it needs.

Lake Erie Guano Fertilizer

contains all three, puts back into the soil the elements that make corn grow.

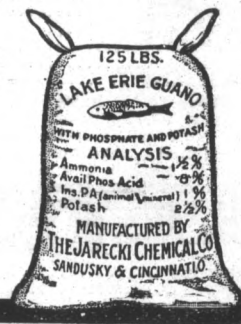
With Lake Erie Guano, only fair soil will yield 80 to 100 bushels. Use Lake Erie Guano this year and get more corn and better corn—large well-filled ears, big well-developed kernels.

Remember it is easier and cheaper to keep your soil fertile than to rebuild it once it is gone. Write for free book.

The Jarecki Chemical Co.

SANDUSKY, OHIO

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Buy direct from the biggest spreader factory in the world—my price has made it. No such price as I make on this high-grade spreader has ever been made before in all manure-spreader history. Here's the secret and reason: I make you a price on one based on a 30,000 quantity, and pay the freight right to your station. You only pay for actual material, labor and one small profit, based on this enormous quantity.

"OK" Galloway No. 5 Complete Spreader —BY FARMERS OF AMERICA

Get my Clincher Proposition for 1910 with proof—lowest price ever made on a first-class spreader. No. 5, complete with steel truck, 70 bu. size; or Galloway Famous Wagon-Box, 4 sizes, from 50 to 60 bu.—with my agreement to pay you back your money after you try it 12 months if it's not a paying investment. How's that for a proposition? If I did not have the best spreader, I would not dare make such an offer. 40,000 farmers have stamped their O. K. Wm. Galloway Company of America,

on it. They all tried it 30 days free, just like I ask you to try it—30 DAYS FREE. Drop me a postal, and say—"Galloway, send me your Clincher Proposition and Big Spreader Book, Free, with low prices direct from factory." T. F. Stice, Oswego, Kans., writes me—"Often pull it with my small buggy team. Does good work. Have always used the... before. Galloway much the best. If going to buy a dozen more, they would all be Galloways. Thousands more letters like these.

649 Galloway Station, Waterloo, Iowa



We defy all Competition on the Quality of this Machine—Our Proof is the O. K. of 40,000 Farmers

Worth \$25 to \$50 more than any other Make—You Try it and See

No. 5 GALLOWAY Complete With Steel Trucks
Can also take Beater off in 2 minutes by taking off 2 bolts. Can remove apron in same time and use box if you wish.

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MARKETS

DETROIT WHOLESALE MARKETS.

December 15, 1909.

Grains and Seeds.

Wheat.—During the past week there has been a steady and consistent rise in the price of both cash wheat and futures. This advance has been marked by rather sensational fluctuations in the market, but each day's close has marked a gain of about 1/4c per bushel. The home situation in wheat appears to be unchanged. Sales from the farms of the country are small but the demand continues strong. The mills are taking everything offered at the advance and in many instances are unable to get enough grain for immediate demand and some are already cutting into their reserves. Very little wheat is moving in Michigan but Michigan mills report an increased demand for flour. It is freely predicted in market circles that growers who have been holding for \$1.25 will soon be able to close out their holdings at that figure. Statistics show a decreasing visible world supply with small receipts at all points. Good weather for harvesting in the Argentine, and less demand from frost than was expected, is the only bearish influence reported. The price of No. 2 red wheat on this market one year ago, was \$1.03 1/4c. Quotations for the week are:

	No. 2	No. 1	Red.	White.	May.	July.
Thursday	1.21 1/4	1.21 1/4	1.24 1/4	1.02 3/4		
Friday	1.22	1.22	1.24 1/4	1.02 3/4		
Saturday	1.22 1/4	1.22 1/4	1.25	1.03		
Monday	1.24	1.24	1.27	1.04		
Tuesday	1.24 1/4	1.24 1/4	1.27 1/4	1.04		
Wednesday	1.24	1.24	1.27	1.03 3/4		

Corn.—Corn prices have kept pace with wheat during the past week, a consistent advance of 1/4c per day being made. It is not probable that this advance will continue as profit taking but short interests and increased stocks in store are proving bearish factors in the market. One year ago No. 3 corn sold for 60 1/4c in this market. Quotations for the week are:

	No. 3	No. 3	Yellow.
Thursday	59	60	
Friday	59 1/2	60 1/2	
Saturday	60	61	
Monday	61 1/2	62 1/2	
Tuesday	62	63	
Wednesday	62	63	

Oats.—Oats have participated in the general advance of other grains during the past week, altho the factors above mentioned together with considerable selling, makes the immediate future of this market uncertain, altho this grain is sure to remain staple. No. 3 white oats sold at 53c in this market one year ago. Quotations for the week are:

	Standard.
Thursday	45
Friday	45
Saturday	45 1/4
Monday	46 1/4
Tuesday	46 1/4
Wednesday	46 1/4

Beans.—There has been no activity in this commodity during the past week. Nominal quotations remaining the same as a week ago, at the following values:

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

Cloverseed.—There has been an advance of about 20c per bu. for prime cloverseed since a week ago. Alsike has remained steady at former quotations. Movements have been liberal at the advance and some purchases of futures have been made at prices above the quotations. Quotations for the week are:

	Prime Spot.	Mar.	Alsike.
Thursday	\$8.90	\$9.10	\$7.85
Friday	8.95	9.15	7.85
Saturday	9.00	9.20	7.85
Monday	9.00	9.20	7.85
Tuesday	9.10	9.35	7.85
Wednesday	9.10	9.30	7.85

Rye.—Last week's price is ruling with the market steady. Cash No. 1 is quoted at 76 1/4c per bu.

Visible Supply of Grain.

	This week.	Last week.
Wheat	28,400,000	31,086,000
Corn	5,663,000	4,206,000
Oats	12,228,000	13,580,000
Rye	923,000	912,000
Barley	3,631,000	4,058,000

Flour, Feed, Provisions, Etc.

Flour.—Market steady, with prices on last week's basis. Quotations are as follows:

Clear	\$5.80
Straight	5.85
Patent Michigan	6.25
Ordinary Patent	5.95

Hay and Straw.—Market is unchanged and firm. Carlot prices on track are: No. 1 timothy, new, \$14.50@15; No. 2 timothy, \$13.50@14; clover, mixed, \$13.50@14; rye straw, \$7@7.50; wheat and oat straw, \$6.50@7 per ton.

Feed.—Market unchanged and steady. Bran, \$24.50 per ton; coarse middlings, \$25.50; fine middlings, \$29.50; cracked corn, \$27; coarse corn meal, \$27; corn and oat chop, \$23.50 per ton.

Potatoes.—No material change can be claimed in this deal. The quality of offerings has quite a range while values keep near to where they have been the past few weeks. The cold weather has diminished the volume of receipts. Michigan grown are selling in car lots at 35c per bu. in bulk, and in sacks at 38@40c.

Provisions.—Family pork, \$26@26.50; mess pork, \$25.50; medium clear, \$25.50@26.50; pure lard, 14 1/4c; bacon, 17@17 1/2c; shoulders, 12 1/4c; smoked hams, 15c; picnic hams, 12 1/4c.

Dairy and Poultry Products.

Butter.—Creamery butter made another

advance of a cent the past week. Values are now getting so high that many consumers are turning their attention to substitutes and thus reducing the demand, but the trade is firm at the new figures and everyone is expecting still higher values to prevail. Dairy goods remain unchanged. Quotations are: Extra creamery, 34c per lb; first do., 33c; dairy, 24c; packing stock, 22 1/2c.

Eggs.—Market was steady the past week and there is no alteration of prices. Fresh eggs are coming more freely than they were but demand is good. Current offerings, cases included, are quoted at 28 1/4c per dozen.

Poultry.—The prospective holiday demand has been a strengthening factor in the poultry market. Prices will likely be improved within the next few days but now they are steady at last week's basis. Turkeys do not appear to be plentiful. Quotations for the week are: Live—Spring chickens, 13c; hens, 12c; ducks, 14c; geese, 15c; turkeys, 16@17c. Dressed—Chickens, 13@14c; ducks, 14@15c; geese, 12@13c; turkeys, 17@18c per lb.

Cheese.—Steady. Michigan full cream, 16 1/4c; York state, 18c; limburger, 17c; schweitzer, 21c; brick cream, 18c per lb. 8@9c per lb.

Calves.—Choice to fancy, 11 1/2@12c; ordinary, 8@9c per lb.

Fruits and Vegetables.

Cabbage.—Steady. Home-grown, \$1.25 per bbl.

Onions.—Domestic offerings 65@70c per bu. Spanish, \$1.40 per crate.

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

Cranberries.—Cape Cod berries selling at \$2.25@2.50 per bu.

Vegetables.—Beets, 45c per bu; carrots, 45c per bu; cauliflower, \$1.25 per doz; hothouse cucumbers, 75c@1.25 per doz; green onions, 12 1/2c per doz; green peppers, 75c per bu; mint, 25c per doz; parsley, 25@40c per doz; spinach, 60c per hamper; turnips, 30@35c per bu; water-cress, 25@30c per doz.

OTHER MARKETS.

Grand Rapids.

Wheat, oats and corn are a little higher this week, the advances ranging from 2@5c. Buckwheat is 5c lower. Butter and eggs are firm and higher, creamery advancing 1c, while eggs are up 1/4c. The potato market is steady, buyers at loading stations offering 25@30c, with movement very light. Dressed hogs are firm at 10 1/4c, and some farmers are getting 11c. Poultry is unchanged, with exception of spring ducks, which are 1c higher. Glass farmers, who have large quantities of lettuce to cut, report a dull market and low prices.

Quotations follow:
Grain.—Wheat, \$1.19; oats, 47c; corn, 60c; buckwheat, 55c per bu; rye, 68c.
Beans.—Machine screened, \$1.80.

Butter.—Buying prices, Dairy, No. 1, 25c; creamery in tubs or prints, 33c per lb.

Eggs.—Case count, 27@28c.

Apples.—45@55c.

Vegetables.—Potatoes, 35@40c; onions, 50@60c per bu; cabbage, 30@40c doz; cauliflower, \$1.50@1.60 per doz; beets, 50c per bu; carrots, 40c; turnips, 35c; Hubbard squash, 1c lb; celery, 12 1/2c; parsley, 20c doz; cucumbers, 80c doz.

Hogs.—Dressed, 10 1/4c.

Live Poultry.—Fowls, 10 1/2@11c; roosters, 8@9c; spring chickens, 11@12c; spring ducks, 11@12 1/2c; young geese, 9@10c; young turkeys, 17@18c.

Chicago.

Wheat.—No. 2 red, \$1.25@1.28; May, \$1.10 1/2; July, \$1.00.

Corn.—No. 3, 61 1/4c; May, 66 1/4c; July, 65 1/4c.

Oats.—No. 3 white, 44@44 1/2c; May, 44 1/2c.

Butter.—The market is higher for both dairy and creamery butter in harmony with the local conditions and outside quotations. The trade is strong at the advance. Creameries, 27@32c; dairies, 25@30c.

Eggs.—Prices unchanged and market steady. Prime firsts, 30 1/2c; firsts, 28 1/2c; at mark, cases included, 20 1/2@25 1/2c per dozen.

Hay and Straw.—Market strong at higher prices. Quotations: Timothy, choice, \$18@18.50; No. 1, \$16.50@17.50; No. 2 and No. 1 mixed, \$15.50@16.50; No. 3 and No. 2 mixed, \$12@14.50; rye straw, \$8.50@9; oats straw, \$7@7.50; wheat straw, \$6@6.50.

Potatoes.—Market has fair demand at easier prices. Choice to fancy quoted at 40@43c per bu; fair to good, 35@38c.

Beans.—Choice hand-picked, \$2.05@2.08 per bu; fair to good, \$2.03; red kidneys, \$2.35@2.70.

St. Louis.

Grain.—Wheat, No. 2 red, \$1.29 1/2@1.31; corn, No. 2 white, new, \$63; oats, No. 2, 44c; rye, No. 2, 76@77c.

Hay.—All grades of hay continue scarce and prices rule on about the same basis as a week ago. Timothy No. 1 is selling at \$16.50@17 per ton; No. 2, \$13@15; No. 3, \$12.25; clover, No. 1, \$16@17; No. 2, \$15; clover mixed, \$13.50; alfalfa quotable at \$17.50@18 for No. 1 and \$15@17 for No. 2.

Potatoes.—The lessening of receipts has made a better market for the seller. Fancy, well-matured stock, in car lots on track, quoted at 50@55c per bu; common to fair, 35@40c.

New York.

Butter.—The tendency of other markets to go higher was noted here last week. Trade firm. Western factory firsts, 23 1/2@25c; creamery specials, 35c.

Eggs.—Best grades sold higher last week with common quality about steady. Western firsts to extras, 31@35c; seconds, 27@30c; fancy refrigerator stock, 20@24c.

Poultry.—Dressed, firm. Western chickens, broilers, 13@19c; fowls, 13@17 1/4c; turkeys, 21@25c. Live. Higher—Chickens, 16c; fowls, 16c; turkeys, 15@20c.

Potatoes. Market steady for choice

stock. State and Michigan potatoes in bulk now selling at \$1.50@1.75 per 180 lbs.

Hay and Straw.—Prices advanced the past week and market is steady on the new basis. Hay, timothy, prime, large bales, per 100 lb., \$1.02 1/2; No. 3 a 1, 85c@1.00; shipping, 82 1/2c; packing, 50@55c; clover and clover mixed, 80@95c; straw, long rye, 80@85c; short and tangled rye, 60c; oat and wheat, 55c.

Boston.

Wool.—Buyers are getting more and more anxious about the clip for 1910 and they are actively engaged in persuading farmers to sell, a work which is not easy since growers are well informed regarding the present value of this product and see nothing that will cause values to decline in the near future, consequently fear of losing by not making contracts is wanting. Quotations are: Ohio and Pennsylvania fleeces—XX, 37c; No. 1 washed, 40@41c; fine unwashed, 27@28c; 3/4-blood combing, 36@37c; 1/4-blood combing, 34@35c; delaine washed, 39c; delaine unwashed, 32c. Michigan, Wisconsin and New York fleeces—Fine unwashed, 25@26c; delaine unwashed, 31@32c; 1/2-blood unwashed, 35@36c; 1/4-blood, 33@34c. Kentucky, Indiana and Missouri—1/2-blood, 34c; 1/4-blood, 32@33c.

Elgin.

Butter.—Market firm at 34c per lb., which is 1c above last week's price. Sales for the week aggregated 629,300 lbs., compared with 637,300 lbs. last week.

THE LIVE STOCK MARKETS.

Buffalo.

December 13, 1909.

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

Receipts of sale stock here today as follows: Cattle, 200 loads; hogs, 24,000; sheep and lambs, 23,000; calves, 1,000.

On account of the heavy run of cattle in Chicago today our cattle market here showed a decline of from 15@25c per hundred on all kinds except the prime Christmas cattle, one load of the latter kind selling as high as 8.25. After this big run is over we look for an improvement in the trade. We do not think there is any big supply on hand to come to market right off. The fresh cows and springers sold today from \$3@5 per head lower than last week. Late springers are not wanted and are very hard to sell.

We quote: Best export steers, \$6.50@7; best 1,200 to 1,300-lb. shipping steers, \$6.25@6.50; best 1,100 to 1,200 do., \$5.50@6; medium 1,050 to 1,150-lb. steers, \$5@5.25; light butcher steers, \$4.75@5; best fat cows, (fancy shade higher), \$4.50@5; fair to good do., \$3.50@3.75; trimmers, \$2.50@2.75; best fat heifers, (some fancy 6c), \$5@5.25; fair to good do., \$4.25@4.50; common do., \$3.50@3.75; best feeding steers, 950 to 1,000 lbs., \$4.60@4.85; best feeding steers, 800 to 900 lbs., \$4.25@4.50; 700 to 750-lb. dehorned stockers, \$4@4.15; 600 to 650-lb. do., \$3.60@3.80; little common stockers, \$3.25@3.50; best bulls, \$4.50@5; bologna bulls, \$3.50@3.75; stock bulls, \$3@3.25; best fresh cows, \$4@5; fair to good do., \$3@4; common do., \$2@2.25.

With heavy receipts of hogs in Chicago and a liberal run here our market opened strong 10c lower than Saturday and closed steady with the opening. About everything is sold that got yarded in time for the market.

We quote: Choice heavy, \$8.65@8.70; mixed and medium, \$8.60@8.65; best yorkers, \$8.50@8.60; light yorkers and pigs, \$8.25@8.40; roughs, \$7.80@7.90; stags, \$7@7.25.

Owing to a good many lambs being late in arriving we obtained strong prices for lambs this morning. With heavy receipts we think they may sell a shade lower the last of the week. About everything is sold tonight.

We quote: Best lambs, \$8.60@8.65; fair to good, \$8@8.50; culls, \$7@7.50; skin culls, \$4.50@5.50; yearlings, \$6.75@7.25; wethers, \$5.50@5.75; ewes, \$5@5.25; cull sheep, \$2@4; best calves, \$9.50@10; fair to good, \$8@9; heavy do., \$4@4.50; grass, \$3@3.25.

Chicago.

December 13, 1909.

Cattle. Hogs. Sheep.
Received today46,000 44,000 40,000
Same day last year31,375 52,362 38,527
Received last week77,078 121,199 118,293
Same week last year 79,549 232,815 117,940

Cattle were not rushed to market last week in anywhere near such excessive numbers as a week earlier, and trade started off in a lively manner, with sales on Monday largely 10@25c higher, butcher stock included with steers. Later in the week the big snow storm and later the extremely cold weather interrupted business to a serious extent, many trains reaching the stock yards too late in the day for that day's market, and the offerings the following day were thereby increased a good deal. This made weak markets for the rank and file of the offerings, and the early advance disappeared. Beef steers sold during the week largely at \$5.25@5.40, medium grade cattle comprising a big part of the supplies, while the commoner lots went at \$4.15@5 and the better class of long-fed steers and prime yearlings at \$7.50@8.25 and a few scattering sales at \$8.40@9.25. Exporters paid \$7@7.75 for 1,275 to 1,400-lb. steers, while export steers weighing 1,150 to 1,250 lbs. were salable at \$6.50@6.85. Cows and heifers for city butchering had a good sale at \$3.15@6, and there was a sale of 41 fancy 888-lb. heifers at \$6.75, with canners and cutters selling freely at \$2@3.15. Bulls moved off actively at \$3@5, and calves advanced sharply under smaller receipts, going at \$3@10 per 100 lbs. for inferior heavy to prime light vealers. Milkers and springers were less active than usual at \$25@65 per head, owing to the cold and stormy weather. The stocker and feeder traffic was animated at advances of 15@25c for desirable cattle, stockers bringing \$3@4.50 and feeders \$4@5.25. The unusually large receipts today, Monday, caused a dull and unsettled market, following last week's bad

closing, when medium and plain cattle were 10@15c lower than a week earlier. Trains came in slowly, and values were largely 25c lower.

Hogs were marketed last week in much smaller numbers than in recent weeks or recent years, and the same was the case at other western points. Cold weather made a large demand for fresh meats, and between this outlet and the large requirements for the cured meats and lard trade, there was a big call for desirable droves of hogs. The market developed an unusually firm undertone, and hogs sold at the highest prices recorded this year, with fluctuations within remarkably narrow limits. The receipts showed up well in quality, and everything with weight went like hot cakes, while young hogs adapted for the fresh pork trade sold briskly. The week's packing at western points aggregated but 540,000 hogs, compared with 825,000 a year ago, while total western packing from November 1 amounts to 2,770,000 hogs, a decrease of 1,095,000 hogs compared with a year ago. The average weight of last week's receipts was 218 lbs., compared with 214 lbs. a year ago. Three years ago hogs received averaged 251 lbs. Today, Monday, hogs were active at an average decline of 5c, sales being made at \$8.10@8.60. Best light sold at \$8.50, while pigs sold at \$6.70@8.20 and stags at \$8.65@9.15. Boars sold largely at \$5.25@5.50.

Sheep and lambs were marketed last week much less freely than a year ago and in much smaller numbers than several years ago, when there were good shipments from Idaho and other ranges. The demand for fat flocks adapted to the wants of the Christmas holiday trade was extremely large, and the limited offerings sent prices up sharply all along the line, the medium and good lots being taken largely as substitutes for prime stock. Lambs found buyers at \$5@6.50 for the poorer kinds, while the choicer lots were taken at \$7.75@8.40, the top being 55c higher than a week earlier. Similar advances took place in sheep, and yearlings sold briskly at \$6.25@7.65. Wethers sold at \$5@6.25 and ewes at \$3.50@6, while such lots of lambs as feeders were able to pick up brot \$6.90@7.15. Lambs naturally showed the greatest advance, sales averaging 50@75c higher, as they were in best demand. A good many short-fed lambs were shipped in from Iowa and Illinois corn fields. Late in the week the general demand fell off materially, and prices lost much of the advance. Today saw further sharp breaks, and the best lambs went at \$8, while best yearlings were quotable at \$7 and best sheep at \$5.85, some prime extra heavy ewes going at \$5.75.

LIVE STOCK NOTES.

Abraham Cain, the prominent cattle feeder of Calhoun Co., Ia., says that Iowa, Missouri and Illinois never had so few cattle of their own raising as now. Cattle feeders used to buy cattle in their vicinity, but now nearly all such cattle are shipped to the big markets.

Prime flocks of mutton sheep and lambs have been selling recently in Chicago and other markets at fancy prices, with only moderate offerings and a lively demand for the Christmas holiday trade. Less feeding than usual is being carried on in most sections, and sheepmen who produce prime mutton are pretty sure to reap liberal profits before the season is over. Too many farmers go into the business without proper equipments, and lack of shed shelter has already forced thousands of partly fattened sheep and lambs on the markets of the country. Recently the supply of prime fat lambs has been greatly inadequate, and in many instances packers and butchers have purchased light-weight yearlings as substitutes for lambs.

There has been extensive marketing of short-fed half-fat cattle in recent weeks to save corn, and matured beefs are scarce nearly everywhere, indicating a continuance of high prices for such, but there will be plenty of the cheaper kinds of cattle, and these are in largest demand on the whole. Of late there has been a particularly good demand for food cattle that could be made into moderate-priced beef in retail markets, and fat cows and heifers have also had a good demand.

Isaac Shanton, of Jefferson Co., Iowa, a young stock feeder, bot in the International show ring a car load of two-year-old Angus steers that he intends to finish off for the three-year-old class at the International Live Stock Exposition next year.

Regarding the grand champion steer at the International Live Stock Exposition the general opinion was that his strength was in his meat, there being a remarkable preponderance of the choicest cuts, his hindquarters being rather disappointing. He ranked with the average champions in exhibits of the past ten years and was a credit to Kansas.

A Spreader For All Farmers.

We want to call our readers' attention to the advertisement of the Chase Manufacturing Company on page 516 of this issue. Here is a spreader that every farmer in America can afford to buy. It will save you the wagon box, trucks and all for other uses on the farm. The Grinnell Detachable Spreader is a combined manure spreader and farm wagon. It is a machine that is certainly worth investigating. We have been advising our readers for years to invest in a manure spreader. We believe it to be a necessary machine for every farm. Just write to the Chase Manufacturing Company, 159 Broad St., Grinnell, Iowa, for their catalog, fully describing this exceptional machine.

FOR YOUR HIDE'S SAKE

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

THE WORTHING & ALGER CO., Hillsdale, Mich.

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 Markets.

December 16, 1906.

Receipts, 1,209. Market steady at Wednesday's prices. Cow stuff and bulls 15 @25c lower than last week.

We quote: Extra steers and heifers \$6@7; steers and heifers, 1,000 to 1,200, \$5.40@5.65; steers and heifers, 800 to 1,000, \$5@5.25; steers and heifers that are fat, 500 to 700, \$3.75@4; choice fat cows, \$4.50@5; good fat cows, \$3.50@3.75; common cows, \$2.50@3; canners, \$1.50@2.25; choice heavy bulls, \$4.50; fair to good bolognas, bulls, \$3.50@4; stock bulls, \$3@2.50; choice feeding steers, 800 to 1,000, \$4.25@4.50; fair feeding steers, 800 to 1,000, \$4; choice stockers, 500 to 700, \$4; fair stockers, 500 to 700, \$3.50@3.75; stock heifers, \$3@3.25; milkers, large, young, medium age, \$4@5.5; common milkers, \$2@3.0.

Bishop, B. & H. sold Hupp 4 butchers av 725 at \$3.50, 6 do av 540 at \$3.50; to Mich. B. Co. 11 do av 750 at \$4.25; 10 steers av 1,150 at \$3.75, 4 do av 1,032 at \$5, 20 do av 1,042 at \$5.60; to Fronn 5 do av 1,096 at \$5.60; to Rattkowsky 1 bull weighing 1,650 at \$4.75, 1 do weighing 1,350 at \$3.75, 1 do weighing 1,130 at \$4, 6 butchers av 728 at \$3.85, 2 do av 575 at \$3; to Goose 14 cows av 970 at \$13; to Breitenbach Bros. 9 steers av 913 at \$5.35; to Sullivan P. Co. 1 bull weighing 1,430 at \$4; to Goose 3 cows av 1,003 at \$3.25, to J. Goose 9 do av 1,050 at \$2.85; to Sullivan P. Co. 2 do av 1,270 at \$3, 2 do av 1,160 at \$4, 5 do av 880 at \$2.50; to Mich. B. Co. 25 butchers av 920 at \$4.50, 1 cow weighing 970 at \$3.50, 4 steers av 1,145 at \$5, 20 butchers av 745 at \$4; to Sullivan P. Co. 1 bull weighing 1,590 at \$3.85; to Hammond, S. & Co. 1 do weighing 680 at \$3.25, 4 heifers av 742 at \$4.50, 2 cows av 925 at \$2.75; to Higsbee 7 stockers av 643 at \$3.75; to Markowitz 4 cows av 1,012 at \$2.90, 1 steer weighing 1,150 at \$5.25; to Sullivan P. Co. 3 cows av 866 at \$2.50, 3 do av 933 at \$3.60; to Heinrich 1 steer weighing 930 at \$5.50; to Newton B. Co. 4 do av 1,400 at \$7.

Roe Com. Co. sold Mich. B. Co. 4 cows and bulls av 1,117 at \$4; to Kamman B. Co. 20 butchers av 991 at \$3.40; to Breitenbach Bros. 2 cows av 1,050 at \$3, 1 bull weighing 980 at \$3.50; to Fronn 7 butchers av 620 at \$3.65; to Rattkowsky 6 do av 741 at \$3.40; to Breitenbach Bros. 12 do av 750 at \$3.75; to Hammond, S. & Co. 3 cows av 1,000 at \$2.60, 5 do av 850 at \$2.50; to Rattkowsky 3 butchers av 800 at \$3.25, 2 do av 310 at \$3; to J. Goose 11 cows av 950 at \$3.20; to Sullivan P. Co. 7 bulls av 560 at \$3.25, 2 do av 1,075 at \$3.60, 1 canner weighing 720 at \$1.50; to Heinrich 5 butchers av 710 at \$4; to Regan 14 do av 500 at \$3.25; to Fry 1 cow weighing 1,000 at \$4, 3 steers av 866 at \$4.50; to Regan 5 heifers av 554 at \$3.25; to Rattkowsky 2 steers av 870 at \$3.75, 5 heifers av 470 at \$3.

Spicer & R. sold Mich. B. Co. 35 heifers av 724 at \$4.25, 8 steers av 912 at \$5.50, 2 cows av 800 at \$4.25, 1 bull weighing 1,600 at \$4.25, 9 butchers av 770 at \$4.40, 5 bulls av 1,080 at \$3.75; to Hammond, S. & Co. 24 steers and heifers av 863 at \$4.75; to Rattkowsky 3 cows av 1,080 at \$3.25; to J. Goose 8 do av 1,127 at \$3.25; to Cooke 1 steer weighing 1,150 at \$7, 22 do av 990 at \$5.50, 1 bull weighing 1,130 at \$4; to Breitenbach Bros. 28 butchers av \$20 at \$4.75; to Heideke 6 do av 750 at \$4.50; to Bresnahan 4 canners av 830 at \$2.50, 2 do av 750 at \$2.25, 4 do av 882 at \$2.25; to Hammond, S. & Co. 2 do av 915 at \$2.75, 7 butchers av 730 at \$3; to Fitzpatrick Bros. 1 steer weighing 750 at \$5; to Regan 6 heifers av 576 at \$3.50, 7 do av 540 at \$3.75.

Haley & M. sold Lachalt 4 cows av 1,075 at \$3.50; to Bresnahan 12 heifers av 555 at \$3.60; to J. Goose 6 cows av 1,006 at \$3.10; to Sullivan P. Co. 1 bull weighing 1,050 at \$3.75; to Mich. B. Co. 4 steers av 618 at \$4.50, 3 do av 966 at \$4.75, 33 do av 1,016 at \$5.75; to Hammond, S. & Co. 19 do av 1,120 at \$6, 1 do weighing 920 at \$5.25.

Johnson sold Schuman 3 steers av 680 at \$4.50, 2 do av 810 at \$5.

McLaughlin sold same 2 cows av 740 at \$4.

Bohm sold Fitzpatrick Bros. 4 heifers av 842 at \$4.50, 14 butchers av 665 at \$3.50.

Robb sold Mich. B. Co. 17 butchers av \$90 at \$4.

Bohm sold same 3 cows av 950 at \$3.50.

Youngs sold Lingeman 2 steers av 815 at \$4.80.

Robb sold same 1 bull weighing 1,400 at \$4.75, 1 steer weighing 1,160 at \$6.

Merritt sold Hammond, S. & Co. 2 cow and bull av 1,265 at \$4, 6 cows av 983 at \$2.75.

Veal Calves.

Receipts, 479. Market steady at Wednesday's prices. Best, \$8.50@9.25; others, \$4@7; milk cows and springers, common, dull; good, steady.

Bishop, B. & H. sold Mich. B. Co. 2 av 130 at \$8.75, 5 av 135 at \$8.25, 1 weighing 150 at \$6, 7 av 150 at \$8.75, 1 weighing 120 at \$8.75, 20 av 135 at \$8.65; to Newton B. Co. 14 av 160 at \$9.10; to Sullivan P. Co. 4 av 95 at \$7, 1 weighing 100 at \$5, 9 av 150 at \$9; to Breitenbach Bros. 6 av 155 at \$8.75; to Hammond, S. & Co. 5 av 120 at \$8.50, 4 av 110 at \$8.50, 6 av 155 at \$9, 3 av 150 at \$9.

Spicer & R. sold Nagle P. Co. 1 weighing 110 at \$6, 3 av 145 at \$8; to Sullivan P. Co. 1 weighing 120 at \$6, 5 av 125 at \$8; to Burnstine 1 weighing 330 at \$3, 4 av 125 at \$8.25, 3 av 120 at \$8.50.

Cheney & H. sold Hammond, S. & Co. 6 av 150 at \$9.

Bergen sold same 8 av 145 at \$8.25.

Roe Com. Co. sold Newton B. Co. 6 av 95 at \$6; to Hammond, S. & Co. 5 av 130 at \$6, 23 av 150 at \$8.

Haley & M. sold Thompson Bros. 2 av 160 at \$9.

Krause sold Nagle P. Co. 11 av 140 at \$9.

Sandall & T. sold same 3 av 140 at \$8.25.

Sharp sold Breitenbach 5 av 120 at \$8.75.

Wickmann sold Thompson 8 av 125 at \$8.50.

Sheep and Lambs.

Receipts, 3,939. Market steady at Wednesday's prices; 20c higher than last week.

Best lambs, \$8@8.25; fair to good lambs \$7.50@8; light to common lambs, \$6@7; fair to good butcher sheep, \$4@5; culls and common, \$3@3.75.

Bishop, B. & H. sold Swift & Co. 110 lambs av 85 at \$8.20, 107 do av 85 at \$8.20, 3 sheep av 170 at \$5, 6 do av 120 at \$4, 20 do av 110 at \$3.75, 14 do av 90 at \$4, 24 lambs av 70 at \$7.75, 18 do av 70 at \$7.65; to Stoker 29 do av 50 at \$6.50; to Nagle P. Co. 30 do av 60 at \$7.75; to Sullivan P. Co. 68 do av 80 at \$7.80; to Korf 110 do av 85 at \$8; to Mich. B. Co. 22 do av 50 at \$5.50, 13 do av 60 at \$6.50, 28 do av 70 at \$6.75, 9 do av 60 at \$7; to Nagle P. Co. 74 do av 68 at \$7.25, 57 do av 80 at \$7.80; to Fitzpatrick Bros. 50 do av 62 at \$7.75, 32 sheep av 100 at \$4.50; to Swift & Co. 36 do av 110 at \$4; to Nagle P. Co. 46 lambs av 65 at \$7.75, 9 do av 75 at \$7, 10 sheep av 97 at \$3.50; to Swift & Co. 78 lambs av 85 at \$8.20; to Nagle P. Co. 78 do av 85 at \$8.20; to Fitzpatrick Bros. 57 do av 80 at \$8.25; to Nagle P. Co. 31 do av 72 at \$7.50.

Spicer & R. sold Nagle P. Co. 20 lambs av 45 at \$5.75, 44 do av 70 at \$7.75, 62 do av 80 at \$7.80, 8 sheep av 100 at \$4; to Sullivan P. Co. 7 do av 80 at \$2.75, 32 mixed av 90 at \$5.10; to Fitzpatrick Bros. 8 sheep av 100 at \$3.75, 20 lambs av 80 at \$8; to Nagle P. Co. 4 do av 80 at \$7.50, 6 sheep av 100 at \$3.75; 78 lambs av 70 at \$7.90, 38 sheep av 80 at \$3.75; to Nagle P. Co. 4 do av 140 at \$3.75, 23 lambs av 75 at \$7.35; to Kamman 15 do av 45 at \$6.40.

Haley & M. sold Nagle P. Co. 46 lambs av 75 at \$8, 11 do av 65 at \$7.13 sheep av 85 at \$4, 9 do av 68 at \$4; to Thompson 62 lambs av 65 at \$6.

Roe Com. Co. sold Nagle P. Co. 63 lambs av 70 at \$7.65, 21 sheep av 105 at \$4.50; to Eschrich 4 do av 80 at \$3, 61 lambs av 57 at \$7.

Wickmann sold Thompson Bros. 32 lambs av 55 at \$7.

Adams sold Fitzpatrick 16 lambs av 60 at \$6.50, 16 sheep av 90 at \$3.50.

Cheney & H. sold Hammond, S. & Co. 40 lambs av 63 at \$8.

Bergen & W. sold same 2 do av 95 at \$6, 39 do av 88 at \$8.25.

Bennett & S. sold same 38 do av 88 at \$8.25, 38 do av 70 at \$8.20.

Jedele sold Swift & Co. 36 lambs av 85 at \$8.20.

Heeney sold Nagle P. Co. 46 sheep av 90 at \$3.25.

McLaughlin sold same 27 lambs av 80 at \$7.60.

Krause sold same 28 do av 80 at \$7.75.

Chase sold Newton B. Co. 3 sheep av 125 at \$3.35.

Heeney sold same 73 lambs av 85 at \$8.

Robb sold Mich. B. Co. 10 lambs av 64 at \$7.

Hogs.

Receipts, 8,374. Market steady to 5c lower than on Wednesday.

Range of prices: Light to good butchers, \$8.30@8.45; pigs, \$7.75@7.90; light yorkers, \$8@8.25; stags, 1/2 off.

Closed strong at \$8.50.

Spicer & R. sold Hammond, S. & Co. 77 av 200 at \$8.50, 230 av 180 at \$8.45, 290 av 170 at \$8.40.

Haley & M. sold same 157 av 200 at \$8.50, 258 av 185 at \$8.45, 239 av 180 at \$8.40, 75 av 150 at \$8.30.

Roe Com. Co. sold same 76 av 180 at \$8.40.

Sundry shippers sold same 560 av 180 at \$8.45.

Bishop, B. & H. sold Parker, W. & Co. 780 av 170 at \$8.40, 662 av 160 at \$8.35, 197 av 140 at \$8.30, 876 av 180 at \$8.45, 51 av 200 at \$8.50.

Roe Com. Co. sold Sullivan P. Co. 222 av 200 at \$8.50, 95 av 160 at \$8.35, 36 av 180 at \$8.40, 48 av 175 at \$8.60.

Sundry shippers sold same 360 av 175 at \$8.40.

Friday's Market.

December 10, 1909.

Cattle.

The run of cattle Friday at the Detroit stock yards was light and the quality common. There was no change in prices from Thursday and everything was disposed of as soon as put in condition.

We quote: Extra dry-fed steers and heifers, \$6; steers and heifers, 1,000 to 1,200, \$5@5.60; steers and heifers, 800 to 1,000, \$4.75@5.25; steers and heifers that are fat, 500 to 700, \$3.75@4; choice fat cows, \$4.50; good fat cows, \$3.75@4.25; common cows, \$3@3.50; canners, \$2.25@2.50; choice heavy bulls, \$4.50; fair to good bolognas, bulls, \$3.50@4.25; stock bulls, \$3@3.50; choice feeding steers, 800 to 1,000, \$4.25@4.50; fair feeding steers, 800 to 1,000, \$3.75@4; choice stockers, 500 to 700, \$3.75@4; fair stockers, 500 to 700, \$3.25@3.50; stock heifers, \$3@3.50; milkers, large, young, medium age, \$4@5.5; common milkers, \$2@3.5.

Sheep and Lambs.

The sheep and lamb trade was active at an advance of 25c a hundred from Thursday and the close was steady with the opening. Several bunches brot \$8 a hundred.

Best lambs, \$7.75@8; fair to good lambs, \$7@7.50; light to common lambs, \$6.50@6.75; fair to good butcher sheep, \$4@4.50; culls and common, \$3@3.25.

Hogs.

The hog trade was active and 10c higher than on Thursday and the close was strong at the advance.

Light to good butchers, \$8.50@8.60; pigs, \$8; light yorkers, \$8.30@8.40; stags, 1/2 off.

VETERINARY

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

Advice thru this department is free to our subscribers. Each communication should state history and symptoms of the case in full; also name and address of writer. Initials only will be published. Many queries are answered that apply to the same ailments. If this column is watched carefully you will probably find the desired information in a reply that has been made to some one else.

Stomach Worms in Pigs.—I have some last fall pigs that are not thriving; they cough some and I am inclined to believe have a few stomach worms. I have given some stock food with turpentine, without helping them. P. S., Pewamo, Mich.—Give your pigs equal parts ground gentian, ginger and quassia in their feed twice a day, a teaspoonful is a dose.

Indigestion.—My 6-year-old horse has worked well all summer but is thin and does not seem to be in a thrifty condition; besides, his hind legs stock and he sweats easily. J. P., Greenfield, Mich.—Give a tablespoonful of the following compound powder at a dose in feed three times a day. Gentian, ginger, nux vomica, rosin and nitrate of potash.

Colic.—I have a mare that seems to have occasional sick spells; the principal symptoms being uneasiness, laying down, rolling, pointing nose to side as if in pain. What ails her? F. J. B., Grand Rapids, Mich.—If you will give your mare a tablespoonful of salt, a tablespoonful of ground ginger, a tablespoonful of baking soda and two tablespoonfuls of ground charcoal in some ground oats and bran she will soon commence to thrive and not have any bowel pain.

Chronic Hip Lameness.—My 16-year-old horse goes stiff in left hind leg, in fact, he has been in this condition for two years; recently the hip swelled back of hip joint; since the swelling left the muscles seem to be shrinking. I notice he has difficulty in stepping over objects. H. S. S., Fulton, Mich.—Apply equal parts tincture cantharides, turpentine and sweet oil to wasted muscles every two days.

Punctured Foot.—When arranging the bedding under my cow she kicked and the fork punctured back part of foot; the wound healed but has broken open several times since. A. S., Pontiac, Mich.—Inject one part carbolic acid and 20 parts water to bottom of wound twice daily; before doing so explore the wound to ascertain if there is a foreign body in it, causing all the trouble.

Calves Scour.—My 3-months-old calves have been troubled with scours for the past three months; they are fed separator milk and hay. H. W., Milford, Mich.—Give 2 ozs. castor oil and a tablespoonful tincture opium and repeat the tincture opium doses three or four times a day until the bowels tighten, then give a teaspoonful bi-carbonate soda at a dose three times a day, and you may also give some blood flour.

Torpid Liver.—My 4-year-old mare is rather dull and dumpy; she is used for heavy hauling, but has become so weak that she is unfit to do very heavy work. She stands with her head down, coughs some, discharges a little from the nose and at times has bled at nose. I have thought she might be coming down with distemper. T. K., Fennville, Mich.—It is possible that she may be developing distemper; however, I doubt it. Give 3 drs. bromide potash, 1/2 dr. ground nux vomica and 1 oz. bicarbonate soda at a dose in feed or as a drench three times a day. If the throat is sore or the glands swollen, apply equal parts turpentine, aqua ammonia and sweet oil to throat every day or two.

Indigestion—Shaggy Coat—Abnormal Teeth.—My 13-year-old mare has a long, shaggy coat, eats grain all right, but does not eat fodder well, frequently dropping out large wads of hay; she is in poor condition. She had an abscess come under jaw which I treated according to your prescription and directions given in Michigan Farmer. She made a good recovery. J. R., St. Charles, Mich.—There must be some foreign body lodged in the mouth, perhaps wedged between her teeth or she may have an abnormal growth of tooth which interferes with mastication. If so remove obstruction or file away the abnormal projection on tooth. Floating (Continued on page 519).

No Power Troubles

You can always make a steam engine go. No tinkering and fussing with something you do not understand with a



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Save \$10 Ton on Feed.

CUDDOMEAL

A COTTON SEED FEED

Contains 15 to 18 per cent protein, 6 per cent fat; three times more protein than corn; 50 per cent more than wheat bran.

It's an excellent milk producing feed; a flesh producer for steers and sheep.

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HORTICULTURE

FRUIT MEN AT KALAMAZOO.

ANNUAL MEETING OF MICHIGAN HORTICULTURAL SOCIETY.

The thirty-ninth annual gathering of the horticulturists of Michigan was undoubtedly the best meeting in the history of the society. Better attendance, more enthusiasm for Michigan, more earnestness for the fruit business, greater liberality in the discussion of important topics were never witnessed at any other gathering of the organization. Kalamazoo Commercial Club entertained the visitors in their beautiful city, on December 7-8-9. It was unfortunate that during the meetings one of the worst fires that has visited that city occurred and destroyed nearly a million dollars worth of property, and disturbed the program to some extent, but the wide-awakeness of the local committee prevented the meetings from suffering, and despite the catastrophe, which brot to the citizens of that city the deep sympathy of every visitor, the disturbance was overcome and the program completed.

Reports common thruout this section of the country of the superior fruit industry of the west, were challenged at the sessions, and a choir of men who have been thru the west studying the conditions under which western growers are working sing harmoniously of the superior advantages Michigan producers have over those of our sister states in the far west. This spirit was evident thruout the session. Especially among the apple growers, who at the recent Chicago show, where there was a good opportunity to compare the products of Michigan with those of Oregon and Washington, proved that the advantages largely lay with us, since not only in quality but also in other regards the Michigan product made as good a show as the fancy product from Hood River and thereabouts. The western men stole a march on us, but the Michigan grower has awakened to realize that the former's advantage was not one of inherent quality of the fruit but simply good effective advertising and first-class packing. This the Michigan grower believes he can do and the spirit present showed that he was ready to begin.

The sessions were held in the armory. On the lower floor was an exhibit of fruit, cut flowers, nursery stock, educational exhibits, and a splendid display of spraying machinery and other materials. This feature of the meeting was well patronized. It was a splendid opportunity for men to compare the different makes of machinery and the opportunity was taken advantage of. The fruit was of unusual good quality and the coloring of most of it was better than the average Michigan exhibit. The students' judging contest which took place on Wednesday evening, resulted in the prizes being placed as follows: First prize went to Mr. Crane, of Fennville; second, to Mr. Tubergen, of Grand Rapids, and third to Mr. Vorhorst (failed to get his address). Colleges are eligible to enter in this contest and it has proven a most commendable part of the annual meetings since the practice gives these students a splendid start toward fitting them for judging fruit at county and other fairs and fruit exhibits.

The election of officers resulted in the re-election of last year's officary, which testified to the very satisfactory work that is being done in every department of the organization.

The Papers and Discussions.

In a carefully prepared paper, Hon. C. J. Monroe, of Van Buren county, presented the topic

The Apple—Its Importance and Value to Michigan.

After commenting upon the fact that Kalamazoo was the best and largest apple shipping point in the state from 1840 to 1860, and showing that since other interests have crowded apples to the background, he went on to impress the importance of the crop during these early days, by comparing it with the wheat crop of the time. Recently Mr. Monroe sent circulars to a number of different parties asking about the importance of the apple in their farming operations and received the following reports among others: One orchard of 12 acres cost \$1,000 for labor, gave gross returns amounting to \$3,061 or net returns of \$2,061. Another orchard of five acres cost \$267 for care, gave gross returns amounting to \$1,053, or net returns of \$786. A

third orchard of 3½ acres cost \$253 for care, brot \$1,048 for the crop, making net returns of \$795. Still another consisting of 2½ acres required \$366 to put in good condition and gave a net return of \$1,544. The chief varieties in these orchards were Baldwins, Greenings and Spys. Another orchard which came to the attention of the speaker had made an annual net return of \$800 for the past 15 years. This orchard consisted of 100 trees, 80 of which were bearing fruit. After carefully investigating the proposition with his splendid chance to know the advantages of other varieties of fruits, he was of the opinion that there is little question as to the superiority of the apple over other kinds of fruits from the standpoint of the pocketbook. Thinning was impressed upon him as an important part of the apple operations. This fruit also responds admirably to culture like the best farmers give their corn, to thoro spraying, good fertilizing, and to an abundance of sunshine. Regarding the marketing of fruit the topic has been much discussed but little progress has been made. Better packing is demanded and in this regard he thought that the grower was the one to remedy this defect. Inquiry showed that Michigan gets less for apples shipped in boxes on the Chicago market than do the states from a distance, while her crop put up in barrels is sold at about the same price. It costs on an average 17c to get our crop to that market while it costs the western grower about \$1.50. This is one of Michigan's great advantages.

Discussion.—In the discussion that followed this paper, occasion was taken by those who knew, to impress the point that geographically, naturally, and every other way Michigan was a favored apple producing point. In the recent Chicago apple show, judges declared in favor of the quality of Michigan fruit. In the west they grow quite as many No. 2's and 3's as we do here, but we do not see them. There, too, the growers are annually paying tribute to an association. All along the Pacific coast Michigan grapes are everywhere sold at from 35 to 40 cents per pound, while the local California grape is traded at 5 cents per lb.

Neglected Apple Orchards—A Solution.

Mr. T. A. Farrand, of Eaton county, gave as his solution to the above problem the renting of these orchards by live young men who are willing to work and who will make a study of the need of the orchards in question. The orchards are to be found thruout the farming sections of the state. They are usually away from the fruit regions for in those communities there are men who ere this would have appreciated their value. To the advent of the insect may be largely attributed the downfall of the Michigan apple orchards since the average farmer considers that he has no time to devote to the renovation of these trees and give them the care necessary. These orchards are largely in the hands of older men. In one section where the speaker rented five or six orchards and began doing thoro work, and where there had not been a single spraying rig, after the first season there were bot by residents of that "neck 'o the woods," a half dozen small and one large gasoline spraying outfit. The result from the use of this machinery will revolutionize the attitude of the residents upon the apple proposition. Spraying appears to be the chief need. In the orchards rented by the speaker he has not cultivated or applied any plant food, only sprayed and pruned. Some men are renting orchards for \$100 and receiving \$1,000 from them the first season, while it is usually the experience that after the first season better returns are had. For this reason it is advisable not to rent for less than three years, better to secure the orchards for a longer period as the work put on them is cumulative and some of the benefits come after considerable time. The result of the orchard work is having a decided effect in many communities upon those having orchards and in many instances men are taking hold of the proposition, men who formerly could not, under fire of the orator, have been warmed up to it.

Discussion.—He rents at a certain price per tree. In deciding what a person can afford to pay, the variety, age, vigor, bearing tendency and location of the tree as to markets must be considered. His prices range from 30 to 50 cents per tree. While he knows that cultivation is a valuable thing for the orchard and will return to the owner or tenant a splendid margin for the expense, yet he has found it impossible to cultivate the amount of orchard he had under his control because of the labor situation. As to renting an orchard which the owner wishes to pas-

ture, Mr. Farrand contended that the renter should make a provision in the contract that the stock should be turned out of the enclosure when they endangered the crop and that the tenant should determine when this time occurs. He does not recommend deep plowing of old orchards but knows that on many occasions splendid results have followed such treatment. With an old heavy sod it was stated that the ground could be gotten in better condition by plowing in the fall, but under some conditions fertility might be lost by doing the work at that season instead of in the spring. As to the question of putting the expense of culture into manure to be spread under the trees there were varying opinions and it seemed that conditions would need to be considered before deciding upon one or the other of these methods of feeding the trees.

Better Packed Apples.

Mr. J. C. B. Heaton, of Illinois, who has made a reputation in that state for growing good apples and getting them to consumers in first-class shape, was assigned this topic. Thru a mishap in the mails he had not been notified of the assignment until reaching Kalamazoo, but this would not have been known had statement of the fact been concealed, since the audience received many valuable suggestions from his treatment of the topic. He is unable to understand why the farmer cannot pack his fruit as well as the regular packers and get for the product as good a price as they do. There is nothing about the work but what any person who is awake can do if he wills. He should learn from each season how to do the work a little better the next. This will keep customers. One commission man known to the speaker travels 300 miles every year to get his fruit of a certain person. He has purchased from that man for the past five years. During the first two seasons an inspector was sent out to supervise the packing but since the house relies entirely upon the honesty of the shipper, and on occasions before the car of fruit reaches the house the check is written and mailed to the seller of the fruit upon the latter's word. It is this confidence that should be established between seller and buyer. Proper packing will go far toward bringing such relations into existence. When the facers on a barrel or box is a true index to the remainder of the contents and the buyer gets the name of the man who puts up fruit in that manner, negotiations for more fruit is likely to follow, and when the seller has the commission man coming his way then the former is in a position to say something about the price, the coveted position of every seller.

Discussion.—With regard to the responsibility of the grower for the condition of the market, it was stated that in collecting the exhibits for the recent apple show in Chicago, out of twenty-eight packers of apples who were asked to send a barrel of their best apples to the show for display, an average of about a half bushel in each barrel was worthy of a place on the tables, while only about five per cent of the fruit sent to the exposition by the growers were discarded as not being fit to put before the public. This was taken to mean that packers themselves who have been making so much complaint about growers packing poorly are in a large part responsible for the present condition of the trade.

Scale and Scab.

Superintendent of the South Haven Experiment Station, Mr. Frank A. Wilken, held the attention of the large audience upon this subject. These diseases are the chief cause of poor fruit. For the scale it is practically decided that lime and sulphur is the standard remedy. The old method of applying this wash was to boil up about 15 pounds of sulphur, 20 pounds of lime to 50 gallons of water and apply to the trees while hot, but the disagreeable work of putting on this spray called for investigation and now instead of using the spray as above stated, 8 pounds of lime, 15 pounds of sulphur are used to fifty gallons of water. This mixture can be boiled and set aside indefinitely if kept from evaporating and used cold when desired. In boiling a more concentrate solution can be made and afterwards diluted. Use about a gallon of water to each pound of lime, or in that proportion, for boiling. The advantage in using a cold mixture and in being able to keep the product without destroying or reducing its effectiveness is that one can go out in the orchard and spray during odd times when under the old method it would require the available time to get the mixture warmed up; and by being able to make the spray in the above manner much of the labor can be done when the work is not so crowding and less help will thus

be required. Commercial lime-sulphur has also proven satisfactory. The above proportions are for the winter mixture and are to be used while the trees are dormant. For summer spraying the proportions should be about two pounds of lime and three pounds of sulphur to 50 gallons of water. In treating for the scab it has been found that Bordeaux mixture russets the fruit and makes them less salable. Other materials have been experimented with but from the present findings lime-sulphur used one-fifth the strength of the winter spray has given the best results. Thus far extensive experiments have not been conducted to determine if this remedy will work under all conditions but they have been carried far enough to point to a general use. It was found that the commercial lime-sulphur sprays gave about the same results in treating scab as the home-made product. When it came to mixing an arsenate with the lime-sulphur spray for controlling chewing insects arsenate of soda was found to be the most valuable. In keeping lime-sulphur, steps should be taken to prevent evaporating as the strength of the mixture will be changed thereby. Air tight barrels have been used for the purpose and at the Pennsylvania station vessels were filled and over the top a surface of paraffine oil was placed with good results. It was noted by the speaker that there is a tendency among practical fruit men and investigators to use less of the spray materials than were formerly used.

Discussion.—Mr. Wilkens used full winter strength upon trees just before the blossoms appeared and discovered no ill effect to the foliage or the trees. Mr. Welch, of Allegan county, found that by using 10 pounds of lime to 15 pounds of sulphur a better chemical combination was made. At the Pennsylvania station where most of the work with this spray has been done it was determined that one-half as much lime as sulphur proved the best spray from the standpoint of keeping. It was stated that where the mixture is made in a feed cooker it should be boiled longer than where cooked with steam. The summer strength had some effect upon the aphids and sucking insects but was not sufficient to control them. The spray does not kill scurvy scale as readily as it does the San Jose scale. Oil solutions were recommended to clean trees of scurvy scale.

Effects of Orchard Management Upon the Available Food Supply.

Prof. H. A. Huston, of Illinois, who spoke from his broad knowledge of the fertilizer field upon this topic took occasion to question the stand taken by many authorities. While it is claimed that there is sufficient plant food in the soil to last hundreds of years, yet when it takes thousands of years for this food to be made available, it becomes necessary to do something in the meantime to keep plants growing. He had observed that the systematic management of orchards usually begins when the orchard comes into bearing. This often is due to lack of capital, but one can grow other crops among the trees to pay the way of the orchard during the growing period, but in this connection it must be remembered that two crops require more food than one and the soil needs to be fed accordingly. He spoke of one orchard that was successfully producing five crops but that to do this it demanded a very careful and liberal food supply. Clover and barnyard manure will help maintain and perhaps increase the nitrogen supply. With too much nitrogen it is possible to delay the fruiting of the trees. To overcome this tendency the plant food should be balanced by adding other elements. Often the balance is brot about by taking out some of the nitrogen thru the growing of some grain crop on the land, but this was not recommended by the speaker. Nitrogen is made available more quickly by cultivation. Potash is almost always present in the soil but not always in the same combination. Sometimes it is combined in such a manner that it must be relieved before plants can make use of it. Cultivation aids in this, also land plaster, or salt may get this potash ready for plants. But such methods taxes the future and will require that later much more of the element will need to be added from foreign sources. Most of the potash in the soil is in the form of feldspar. He does not think that we should hurry the methods of nature in breaking down locked up elements. Acid phosphate contains gypsum which brings this combined potash into consumable form. We want to grow orchards so they will produce for a long term of years and to do this requires that we have a constant supply of plant food. Phosphoric acid may be the most important element in

the orchard. This element must be fixed and held for the use of the plant. The soil is hungry for it. Unless the soil is satisfied it will rob the plant of the latter supply. This hungering of the soil must be provided for before the plant will have a good chance. Hence it is desirable that this element be added to the land in liberal quantities. He recommended that phosphoric acid be added in the form of acid phosphate at the rate of 500 lbs. per acre annually in general practice. Also that the amount of potash and phosphoric acid be increased about two years before orchards should come into bearing, which practice would hasten fruit production.

Discussion.—In regard to the time for adding fertilizer to the land, the professor stated that under general conditions the best time is when it is most convenient. He would prefer the use of acid phosphate to steamed bone. If, however, the bone is used select that which has been steamed most thoroughly. In treating open soils he found that there was practically no difference between the muriate of potash and the sulphate of potash. It has been observed that kanite used about the crown of the tree in two to three teaspoonful quantities aids in keeping away root lice.

Annual Banquet.

On Tuesday evening in the banquet rooms of the Elk's Temple fully three hundred people sat down to a well-prepared and well-served banquet which played an important part in bringing the visitors close to the hearts of the citizens of Kalamazoo, and to each other. Prof. Thomas Gunson of the Michigan Agricultural College, was introduced by President Smythe, as toastmaster of the occasion. This selection was a most happy one as everyone who enjoyed the feast of good things that pleased both palate and mind, will testify. Visitors from neighboring states were called upon to respond to toasts regarding their respective localities, and the local interests made a splendid showing thru the men who represented them upon the evening's program. It all showed Kalamazoo to be wide-awake. Miss Jennie Buell, of Ann Arbor, represented the ladies in a most charming manner. The banquet is proving an important feature of the sessions by giving the fraternal spirit, which binds closer than business or political relations, a chance to fraternize the fruit men and women of the commonwealth.

The Wednesday morning session opened with a second discussion by Professor Huston, of Illinois, upon the topic

Supplementing the Plant Food Supply of the Farm and Orchard.

Manures are valuable but are not, as generally accorded, the most valuable materials to add to the soil, according to the most careful experiments. For instance, a carload of stockyard manure which weighs about 18 tons will cost in the neighborhood of \$40 on the farm. Much of the plant food in this manure is not available until 10 years or more have elapsed. If some of this capital had been invested in other forms of plant food, it would have become available much sooner. For this reason manure is more costly than we usually consider it.

It is not necessary to supplement barnyard manure with commercial fertilizer but it is often expedient in order that the greatest good be realized from the manure added. The first thing the farmer should know is the character of the manure supply on hand. This is usually nitrogenous in character. Now, the amount of plant growth is limited by the amount of the element in the soil in smallest quantity. There may be much nitrogen and potash but if phosphoric acid is lacking, then the plant growth will be determined by the amount of last named element. For this reason we are often at fault in applying manure excessively for it is not a well-balanced ration for plants. The failure of crops to respond to liberal applications of it indicates a too small supply of some element. At the Minnesota station a rotation consisting of corn, oats, wheat, clover and timothy was carried on a number of years. On the timothy sod which was plowed for corn, eight tons of barnyard manure was applied. This application once every five years fully maintains the humus and somewhat increased the nitrogen supply. There was no effect upon the amount of phosphate in the soil but the supply of potash was diminished by 15 per cent. The yield of the crops was better than the average of the country but in all probability had the barnyard manure been supplemented with potash, the yield would have been materially increased. Because of this failure to properly balance the plant food in the soil, the professor

was of the opinion that much of the nitrogen added in the form of barnyard and green manure is lost.

The soil has the power of fixing potash and phosphoric acid. Altho where heavy applications of gypsum or lime are made some of these fixed chemicals may be released. The practice here should be, as it is in Europe, to have an excess of these two elements in the soil so as to make use of the full amount of nitrogen added. Many years ago, Professor Kedzie advised the use of 400 to 500 pounds of acid phosphate per acre. The result of this was generally satisfactory, but the real cause is somewhat confused, in as much as the acid phosphate contains gypsum and it is not known whether the benefits gained are from the phosphate or the potash set free by the action of the gypsum.

Prof. Huston recommended for bearing orchards on ordinary land, the applications of 400 to 500 lbs. of acid phosphate and 100 lbs. of muriate of potash per acre. On lighter soils he advised the use of less phosphate and more of the muriate of potash. He maintained that the packing house productions were the most expensive source of nitrogen. This element can be better produced on the farm. It has been contended that cultivation burns up humus. This should not be held as a fault of cultivation but rather a benefit for it is necessary to burn this humus in order to make the nitrogen there available to the plants.

Discussion.—The organisms added to the soil when manure is applied aid in freeing the nitrogen in the manure as well as that contained in the humus already in the soil. For this reason manure is more valuable than the chemical analysis would indicate. Raw muck contains much nitrogen, but it is a much superior article after it has been frozen. It is used considerably in compounding fertilizers. To get equal results from kanite, use four times as much as you would of muriate or sulphate of potash. With regard to the use of lime, Prof. Huston advised that tests be made in a small way to see whether the soil responded to its use, or not, for it is possible to do considerable injury to the land thru an improper use of the chemical.

(Concluded next week.)



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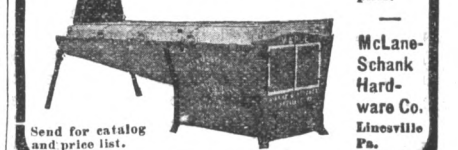
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FARMERS' CLUBS

THE ANNUAL MEETING.

The 17th annual meeting of the State Association of Farmers' Clubs convened in the senate chamber of the capitol building at Lansing, on Tuesday morning, December 7. The first session was entirely of a business nature and at this time the assembled delegates presented their credentials, paid the dues of the Clubs which they represented, and presented such resolutions as they desired to have considered by the State body. The Associational President also appointed the regular committee for the sessions, which were as follows:

Committee on Nominations—D. K. Hanna, Caro; Clayton Cook, Owosso; A. R. Palmer, Jackson; Mrs. D. S. Morrison—St. Johns; Miss Helen Hankerd, Henrietta; E. C. Hallock, Almont; E. W. Woodruff, Blanchard.

Committee to receive and formulate resolutions—Chairman, James Fellows, Lake Odessa; Miss Alice Cronk, Battle Creek; Frank Norton, Harbor Beach.

Committee on Temperance—Chairman, Col. L. H. Ives, Mason; J. T. Daniels, St. Johns; E. Z. Nichols, Hillsdale; J. W. McKay, Spring Arbor; Helen Hankerd, Henrietta.

Committee on Club Extension—O. J. Campbell, Pompell; John Lutz, Saline; Mrs. Fred Currie, Belding; Mrs. T. S. S. Curdy, Howell; Mrs. George Graham, Romeo.

Honorary Members—J. T. Daniels, St. Johns; L. H. Ives, Mason; A. B. Cook, Owosso; I. R. Waterbury, Detroit.

Committee on Credentials—Wm. T. Hill, Carson City; C. E. Cox, Bellevue; Mrs. S. Sadler, Chase.

Committee of National Affairs—Wm. T. Pitt, Alma; D. M. Beckwith, Howell; Mrs. Henry Beckley, Perry; A. R. Palmer, Jackson; Mrs. F. W. Hough, Almont.

Committee on State Affairs—A. B. Cook, Owosso; D. S. Morrison, St. Johns; I. R. Waterbury, Detroit.

The Afternoon Session.

This session was opened by music furnished by the pupils of the Blind School, followed by invocation, when the address of welcome was given by President J. L. Snyder of M. A. C. In extending a welcome to the delegates, President Snyder made some interesting comments on the progress which has been made in agriculture in recent years. He noted the great difference in conditions at the present time as compared with 17 years ago when the first session of this organization was held. At that time there seemed to be danger that the agriculture of our country would follow the same lines into which that of European nations had fallen, and that there would rise two great classes in the industry, viz., the landlord and the tenant. But the great and increasing prosperity of the industry has changed all this, and the progress in invention and manufacture as well as in the functions of the government itself has relieved the isolation of the farm family and brot to them the conveniences enjoyed by the city dweller.

Our rural delivery system was only an experiment 17 years ago at the inception of this organization. Even the most sanguine of us little that it would develop to its present day proportions so quickly. The telephone was little used in comparison with the present, and its general introduction into rural communities was almost unthought of. The trolley car has likewise done much for the country people in many communities and the automobile is destined, in President Snyder's opinion, to be the finishing touch upon the attractiveness of country life.

Amid these changed conditions, the speaker emphasized the importance of giving the farm boy some responsibility, to the end that he may gain valuable experience and a wholesome ambition upon the farm. The importance of an organization like the Farmers' Club was emphasized and the delegates were assured of a warm welcome to the city, and particularly to the college and the other institutions in which they were interested as citizens and taxpayers.

President Snyder's address of welcome was fittingly responded to by Hon. L. Whitney Watkins, of the Norvell Farmers' Club, and ex-president of the State Association. Then followed the report of the Associational Secretary, which we give by text as follows:

Report of Associational Secretary.

It seems only a few months since we were making preparations to attend the annual meeting of 1908, yet it is exactly one year tomorrow since we assembled in this hall, and we are glad to see so many familiar faces and trust the new faces will become familiar.

For the average farmer this has been a prosperous year, and what better way of celebrating after the fall work is done, than to come to our capitol city and spend two days in the senate chamber to listen and to be heard on the topics of the day.

Surely this has been a remarkable year in state affairs, the affairs in many counties and in many road districts and these topics will be touched upon.

But in comparison, what about our Clubs of the state? Are they having a setback in any way? We hope not. While we do not report as many as one year ago, we know of some clubs that are much more active than for several years. In 1908 we reported just one new club. This year three.

January 1, 1909, we listed 125 Clubs in 31 counties with 7,000 members. During the year 12 have written they have gone out of existence, making 113 plus the three new ones—making a total of 116 that we have listed and we wish every Club in the state might be desirous of being on the state's list.

The three new ones are, East Cambria, Hillsdale Co., organized February, 1909; Hartland, Livingston Co., organized April, 1909; Riley, Clinton Co., organized February, 1909. Of the total 116 we believe all are active but four and we still hope to hear from these favorably during this meeting. They are, Farmers' Union of Tecumseh, Lenawee Co.; Jefferson, Hillsdale Co.; Montcalm, Montcalm Co.; Union Township, Isabella Co. The first and last mentioned are the only ones from whom the Associational Secretary has had no communication during the year. Of this total, only 80 Clubs paid their membership dues to the State Association in 1908. Can we not have a better representation at this meeting?

The amount of work done by your Associational officers and board has been about the same as last year minus the work at the state fair. That made much extra work and expense in 1908. There have been two executive meetings this year. The first was held in Lansing, January 28, 1909. There were present: President, vice-president, secretary, corresponding secretary, Directors Beckwith, Halladay and Holden and Ex-President Ives. A motion was carried to have the resolutions on state affairs, as passed at the annual meeting, printed, together with an explanatory letter and a copy of same sent to each member of the legislature. Also a motion was carried to have the resolutions on national affairs printed and sent to each Michigan member of Congress. A motion was carried that we request Senator L. Whitney Watkins to use his influence to have placed in the Michigan Manual our Association with list of officers. (This has been accomplished).

A motion was carried that the executive committee ask the clerk of the house and secretary of the senate to furnish a copy of the Journal to the secretary of every local Club and the Associational Secretary to furnish list of same. (Thru the courtesy of our friend, Senator Watkins, this was also accomplished).

The financial report of the secretary was accepted and new bills allowed. The annual report as made out by the secretary for the printer was also accepted.

President Chandler formed a resolution in honor of Mr. O. T. Allen, late editor of the Lansing Journal, which was signed by the members present and spread upon the minutes.

A motion was carried whereby Clayton Cook and B. A. Holden were appointed a committee to solicit advertisements from stock men and the Agricultural College to help us in the revenue line, the same to appear in our annual report. A motion was also carried that if the funds were sufficient, the Associational Secretary be instructed to have 10,000 copies of the report of the annual meeting printed. These advertisements did not materialize, and the secretary had the usual number, 500, of the reports printed.

After a lively discussion over some of the bills in the Legislature then in session, this meeting adjourned to the call of president and secretary.

The second executive meeting was held in Lansing September 16, 1909. There were in attendance president, vice-president, secretary, treasurer, Directors Beckwith, Halladay and Hallock.

The secretary's financial report was approved and she told of her work done since the last executive meeting, which in part, consisted of writing to all delinquent Clubs, writing letters to 84 Clubs asking for 1909 list of officers, enclosing self addressed postal card for same; sending out 134 copies of state affairs to Michigan Legislature and 15 copies of national affairs to members of Congress.

The annual reports were ready for distribution April 24, and 400 have been mailed.

A motion was carried, that it is the sense of this meeting to have 2,000 copies of the proceedings of the state meeting printed, and that an effort be made to secure advertisements to pay for same, the advertisements to appear in the back of the report.

A motion was also carried that the directors be added to the advertising committee to solicit ads, make contracts, etc.

The date of the annual meeting for 1909 was fixed for December 7-8.

Plans, subjects, and speakers were then discussed, the details of programs and all other arrangements for the annual meeting were left to be carried out by the Associational Secretary.

It was decided by the board that we have six sessions instead of five, calling to order at 10:30 Tuesday a. m., making this session entirely a business one, appointment of committees, presentation of resolutions and payment of dues.

Adjourned to meet at annual meeting.

The programs came from the printer November 2. On the following day, a program, a report blank, and two credential blanks were sent to each recording secretary of the local Clubs, and on November 4, programs were sent to the presidents.

Programs have also been sent to all officers, ex-officers, and to many interested persons, and to the Lansing and Detroit dailies.

The letters of inquiry have been more numerous this year and each has been

answered to the best of your Associational Secretary's ability. The inquiries have been as follows:

One for President Chandler's address of 1908; 1 for Prof. French's address of 1908; 1 for a copy of resolutions passed on state fair in 1908; 2 on how to join the S. A.; 1 as to when dues to S. A. should be paid; 2 as to whether the 1908 dues had been paid; 1 about individual dues; 3 on how to organize a new Club; 2 for local club constitution and by-laws; 1 for report of 1907; 7 for report of 1908; 6 for entire list of Clubs; 4 for entire list of secretaries; 1 for list of secretaries of Jackson county; 1 for list of corresponding secretaries of Oakland county; 2 for Club subjects; 1 for Club mottoes; 1 for what song book to use; 1 from Hon. Sam Smith about distribution of seeds to local Clubs; 1 to be placed on the 1909 program; 1 for the Associational Secretary's correct name and address; 1 for the American Agricultural Hand Book for 1910; 2 for report and credential blanks; and two opportunities for the secretary to write Club papers.

As has been the custom, a brief report of the Associational work for the year ending June 30, 1908, was written for the report of the state board of agriculture. The statistical part of this report seems very incomplete, for only 80 Clubs have returned the report blanks.

Total number of meetings held during the year, 790, with an average attendance of 45 total number of members, 5,450; total number of members one year ago, 4,900; 25 use yearly programs; 41 hold annual picnics; 19 hold Club fairs; 20 hold temperance meetings; 74 deaths during the year; 54 secretaries takes the Michigan Farmer. Of this number of Clubs 52 sent delegates to last year's meeting and all made reports.

Since 1896 the Michigan Farmer has been known as our Official Organ, and we wonder who has searched the Club page the most eagerly, you or the Associational Secretary. The reports from the local Clubs have shown much interest and activity in the work. But why do not all the Clubs report is the same old question?

The editor, our Ex-President, Hon. I. R. Waterbury, has spared no pains in making the Club page what it should be, and many thanks are due him from the officers of this Association for all he has done in behalf of the Association. Forty-five Clubs have reported thru this medium, two of which are not listed in our books. Are they in existence or have we them under some other name. They are, S. E. Vernon and Union of Oakland. The reports range from one to eight times, Ingham Club taking the lead. Odessa and Twentieth Century follow with seven, Ellington and Almer, Salem, Sherman, and Washington Center follow with six reports each. We notice, too, from these weekly communications a new county organization, that of three of the Clubs of Tuscola county, Indianfields, Ellington and Almer, and Hickory.

Also we notice papers have been published from seven different Clubs. This feature we would heartily recommend.

The Associational Secretary has received many more letters telling of the work and workings of the Clubs than in any previous year. * * * * *

Your secretary had the honor of being invited to the June meeting of the Maple River Farmers' Club, held at President Chandler's home in Owosso, and the August picnic of the Washington Center Farmers' Club, which was held at the M. A. C. Both days were thoroughly enjoyed and we need not worry about these Clubs going out of existence.

We hope the Clubs here represented will receive enthusiasm from their delegates in attendance to last them thruout the year and we wish for each of you a very successful year.

Mrs. W. L. CHENEY, Sec.

After a musical number, Ex-President C. B. Cook, of Owosso, gave an address on the fruit question, which will be summarized in a future issue. Mr. Cook is one of the state's most successful horticulturists, and his message upon this subject should be carefully read by every club member in the state. It will be presented in these columns at the earliest possible date.

The closing number of the afternoon program was a discussion of different phases of farm management by Messrs. A. R. Palmer, of the Columbia Club, B. H. Smith, of the Indianfields Club, E. W. Woodruff, of the Broomfield Club, and E. C. Hallock, of the Berlin and Almont Club. These talks, in common with others of a practical nature delivered at this meeting will be reserved for a future issue, in order that matters pertaining more particularly to the state organization may be touched upon in this general report.

However, they should be watched for and carefully read by every club member in the state, as they are of the greatest practical value and each will be summarized in this department at the earliest possible date.

It is to be regretted that this report cannot be completed in this issue, or at least made to include the evening session of the first day, at which time the president's annual address was delivered, and the suggestions in which prompted, in large degree, the action of the Association thru the committees who considered and formulated the resolutions which were adopted. This will, however, have to be deferred, in order that those resolutions, or as many of them as possible, may be presented in this issue. Those resolutions, which were submitted and

adopted at a later session, were as follows:

National Affairs.

We are in favor of the national conservation of the forests, water power, coal and other mineral lands, as advocated by Ex-President Roosevelt and put into operation by Secretary Garfield and Chief Forester Pinchot.

We wish to place ourselves on record once more as favoring the parcels post system and postal savings bank. We believe it the duty of the members of every Club in Michigan to write their representatives in Congress, and find out where they stand on these questions of vital importance to the people.

We strongly favor a graduated national inheritance tax which shall make swollen fortunes in all states and territories of the Union pay their fair proportion toward the burden of protection and government.

Whereas, We believe good roads are beneficial to all. Therefore, we heartily endorse state and national aid to the end that the farmer may be relieved of a portion of the cost of building and repairing public highways.

Whereas, We believe that the present law permitting the transportation of liquor into prohibition territory to be one of the greatest hindrances to the enforcement of temperance laws; Therefore, Be it Resolved, That we request our members in Congress to use their best efforts to prohibit the injustice of the liquor interests in forcing their traffic upon temperance people.

Resolved, That we call upon all would-be candidates for public office to declare their position on the several questions that are prominently before the people, that we may know whom to support at the primary election.

We believe that corporations whose business is in the nature of a monopoly or who sell their products in foreign fields at a less price than at home need no tariff protection. We also believe tariff duties should, as far as possible, be placed upon luxuries and not upon sugar, rice, flour and other necessities.

Whereas, We thoroughly approve of the working of the pure food law and in conformity therewith oppose any effort to remove the tax on colored oleomargarine.

Resolved, That we urge the adoption of some plan by which the services of the rural mail carriers in transporting small parcels on their routes may be available to farmers at a price which they can afford to pay.

State Affairs.

Whereas, The people of Michigan will have an opportunity next year for the first time in the history of the state to place in nomination for election by the legislature a candidate for the office of United States Senator; and

Whereas, We know that the people of the state have heretofore had but little to say in the important duty of electing a representative of the state in the Senate of the United States, and realize that now, the people thru their legislature having reserved to themselves a voice in the election of that representative, we have a right to be heard and to take a part in this function of self government; therefore

Resolved, By the State Association of Farmers' Clubs of Michigan, that we believe the people of the state should take advantage of this opportunity to name a candidate who will represent them as well as the special interests, who will refuse to be subservient to the mouthpieces in the Senate of the trusts and monopolies of the country, and who will be a strong, powerful and progressive representative of all classes and interests of our commonwealth; and

Resolved further, That we condemn the base attempt now being made by certain federal office holders and active agents to pledge prospective members of the legislature regardless of the result of the primary for senator next September, and call upon the voters of the state to see to it that their representatives and senators in the next legislature are pledged to vote for the candidate for United States Senator who receives the greatest number of votes in the entire state.

Whereas, We realize that the educational influence of a state fair is great, and that the state of Michigan should have and can have a state fair second to none, and Whereas we are gratified at the effort which is being made by some of the state fair officials to terminate the sale of intoxicating liquors on the grounds and remove certain other objectionable features, therefore be it Resolved, That if said officials are successful in giving the people a strictly clean fair, that we extend to the state fair of Michigan our hearty and cordial support.

Whereas, We appreciate the general feeling of unrest that exists among depositors in banks as evinced by the interest taken in the question of the state guarantee of deposits, and also in the almost overwhelming demand for the postal savings bank. Therefore be it Resolved, that we call the attention of the bankers of the state and the state legislature to this very undesirable condition of unrest and ask them to co-operate in an earnest effort to devise some means to gain the absolute confidence and procure absolute security of the depositor and at the same time work no injustice to any banking institution in the state.

Whereas, the word bank to the average citizen implies security whether said bank be national, state or private, and Whereas, we believe the private banks with no inspection or regulation by disinterested parties to be a standing menace to a great army of depositors. Therefore be it Resolved, That we petition the legislature to pass an act whereby every institution which makes it a business to receive deposits from the public, excepting national banks, will be compelled to come under the inspection of the state banking department.

Whereas, Several counties have adopted the salary system of paying its county officers, said system having resulted in a great saving to the tax payers of said counties, and Whereas it seems impossible to get a bill thru the legislature making this system mandatory on all officers in all counties, Therefore be it Resolved, That we petition the next legislature to pass an act empowering the board of supervisors in any county of the state to place its county officers on a salary basis if they so desire.

Whereas, We believe the use of the cigarette to be a menace to the health, morals and intellect of our young men, and a danger second only to the use of intoxicating liquors. Now therefore be it Resolved, that the State Association of Farmers' Clubs are opposed to the manufacture and sale of cigarettes in this state, and urge our representatives in the legislature to use every honorable means to secure the passage of a bill forever prohibiting the manufacture and sale of cigarettes in this state.

Whereas, The farmers are the successors to the pioneers to whom we are indebted for the comforts and luxuries of today, and Whereas, our busy lives cause many important matters to be neglected, therefore be it

Resolved, That it is the sense of the

GRANGE

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

STATE GRANGE IN SESSION AT TRAVERSE CITY.

The 37th annual meeting of Michigan State Grange, which will undoubtedly go into history as the largest and most successful yet held by the organization, opened its first session shortly before noon on Tuesday of this week. This brief session, which constituted the formal opening of the great meeting, was not far different from those of former meetings, the time being consumed by addresses of welcome from representatives of the city and of the Patrons of the Grand Traverse region, which were fittingly responded to by prominent mem-

reasonably sure to be the largest of its kind ever assembled in this state, and a voting strength of 500 or 600 will occasion no surprise. Then the fact that this meeting is being held in what has been considered comparatively new Grange territory, combined with that progressive spirit pervading the Grange in all parts of the state and freighted with new problems and new possibilities, promises to bring out an unusual number of visiting Patrons. Neighboring counties are making the most of this opportunity to show their loyalty to the organization and to gather inspiration for their future work. A number of them have installed attractive and appropriate exhibits of their farm products, the same constituting a feature of this year's meeting which adds much to the enjoyment of the visitors. Leading merchants of the city have decorated their places of business with agricultural products, and on every hand there is evidence of a spirit of cordial welcome and fraternal interest in the organization which bids fair to make this meeting a memorable one.

The officers of the State Grange, who are filling their respective stations at this meeting, are as follows:

Master—Nathan P. Hull, Eaton Co.
Overseer—Chas. A. Vandeventer Gratiot Co.
Lecturer—Miss Jennie Buell, Washtenaw Co.
Steward—T. E. Niles, Antrim Co.
Assistant Steward—Leon Haybarker, Lake Co.
Chaplain—Mrs. O. J. C. Woodman, Van Buren Co.
Treasurer—Frank Coward, Branch Co.
Secretary—J. W. Hutchins, Jackson Co.
Gate Keeper—G. A. Whitbeck, Muskegon Co.
Ceres—Mrs. A. J. Kellogg, Oceana Co.
Flora—Mrs. Ella Morrice, Emmet Co.
Pomona—Miss Nellie Mayo, Calhoun Co.
Lady Assistant Steward—Mrs. Leon Haybarker, Lake Co.
Executive Committee—(Terms expiring 1909), F. G. Palmer, Gratiot Co.; H. F. Baker, Cheboygan Co.; John K. Campbell, Washtenaw Co. (Terms expiring 1910), Geo. B. Horton, Lenawee Co.; T. H. McNaughton, Kent Co.; M. H. Burton, Barry Co.; L. W. Oviatt, Bay Co.

TWO GOOD MEETINGS.

Lapeer Young People's Special Meeting.

To Lapeer Pomona, under the leadership of Lecturer M. W. Judd, belong the unusual credit of holding a very successful special session by and for the young people. This occurred at Attica, December 3. Preparation had been carefully made, involving the tasteful arrangement of a stage and court scene and the thoro practice of the fifth degree and a short play. Mr. Ernest Force, a young man from Attica Grange, presided as Master pro tem during the afternoon, when a talk on "The Lecture Hour" by the State Lecturer, and a lively discussion of the contents of the question box made up that part of the program.

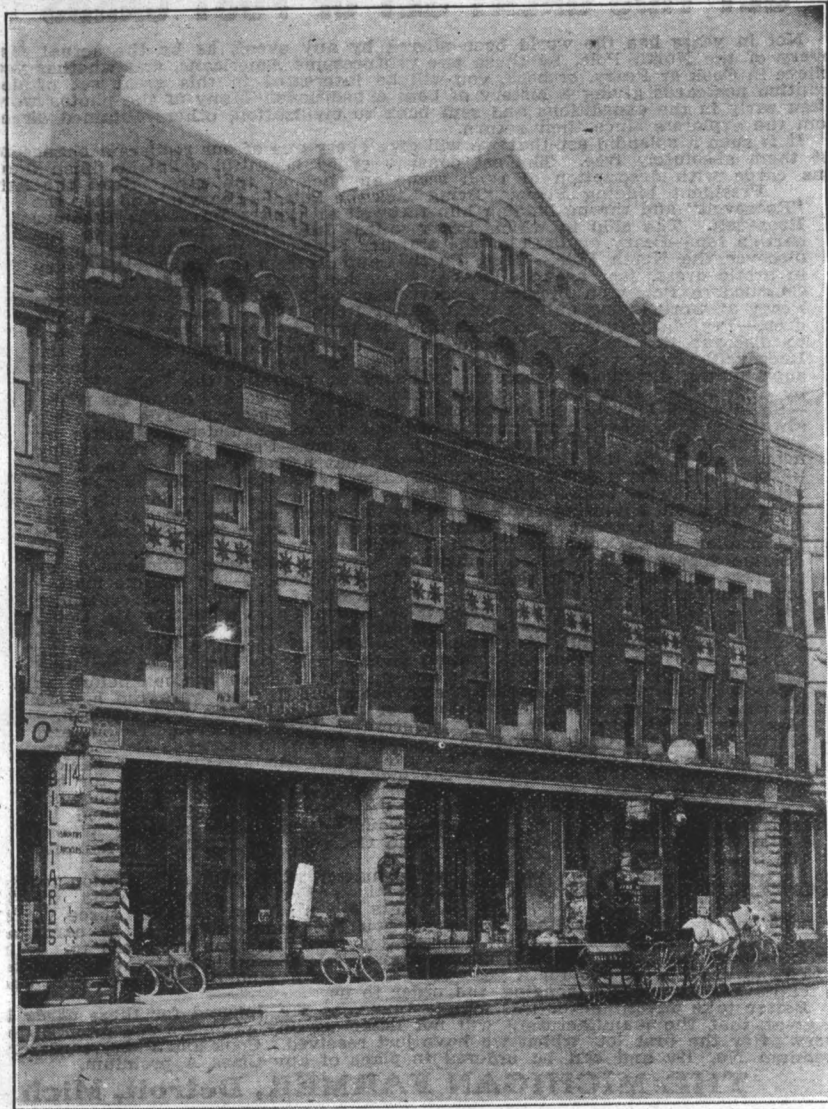
In the evening, a team of Attica young people, headed by Mr. McGregor, teacher of the village school, acting as Master, and Mrs. McGregor as Pomona, conferred the fifth degree in beautiful form upon three candidates. Music, in charge of Miss Bell Russell, accompanied the degree and interspersed other exercises of the evening. Humorous recitations were well rendered by Messrs. Payne, of Attica, and Chandler, of Almont. Miss Buell spoke briefly upon "The Grange and the Young People," showing the need of each for the other. Then came the charming climax of the occasion, consisting of a play presented by a dozen young people from South Attica Grange, entitled, "The Golden Wedding." The tone of the play was so pure; the representation of the quaint, old-fashioned characters by fresh young faces, but slightly disguised; and the singing of sweet old tunes by voices that were made discordant and broken with difficulty—all was simply delightful and kept the audience in merry mood throughout. Altogether, the "Lapeer Young People's Special" was voted a success, and the South Attica players were invited to present their little play again before Pomona, at Almont, in February.—J. B. Eaton Pomona.

The session of Eaton County Pomona Grange held in Eaton Rapids, November 20, was well attended. Olivet, Vermontville, Bellevue, Charlotte and Dimondale Granges being represented. Routine work occupied the forenoon and after a big dinner the fifth degree was conferred on a good class. The feature of the afternoon program was an address of J. C. Ketcham, of Barry Co., who urged the necessity of making co-operation and organization as universal among farmers as among professional men, declaring that farmers should know each other better and should guard against living too much to himself. In closing, he made an ardent appeal for better school buildings and better teachers, expressing the hope that the day is not far distant when our daughters will point to their diplomas in domestic science with as much pride as they today point to a diploma in music or literature, and that the son will manifest an equal pride in pointing to his diploma from the school of agriculture.

COMING EVENTS.

Pomona Meetings.

Ionla Co., with Banner Grange, Thursday, Dec. 30.
Osceola Co., with Richmond Grange, Tuesday Dec. 21.



Traverse City Opera House in which the State Grange Sessions are Being Held.

Farmers' Clubs of the state of Michigan that more attention be given in the public schools to the history of our state, that it should be required in our school courses, and that teachers should pass an examination in it.

Temperance.

Resolved, That we most heartily endorse the action of President Taft in his move to have discontinued the sale of intoxicating liquors from the capitol building.

Resolved, That we favor the enactment of a law by the Congress of the United States prohibiting the transportation of intoxicating liquors into dry territory.

Resolved, That, while we recognize the great advancement made in the cause of temperance, thru the county local option, movement, we believe that the temperance sentiment throughout our state has now reached that condition of earnestness which demands the inauguration of statewide prohibition.

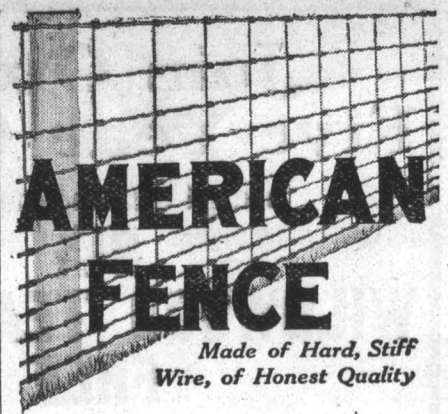
Club Extension.

Whereas, We believe the Farmers' Club to be of much value to any community. Therefore, we would suggest that a committee be appointed in each Club to have this work in charge. We recommend that those interested call a first meeting in some public place, church, schoolhouse or hall, and give at this meeting a clear idea of Club work, discuss nothing at first but farm topics, depend largely on the question box, have plenty of music, elect the right man for president, and be sure to report all meetings in local papers and Michigan Farmer.

Resolved, That each Club do its utmost to organize one new Club during the coming year.

(Continued next week.)

The Michigan Farmer a year including a premium, costs 75 cents. What could make a better Christmas present, especially to a friend who that he could not afford to buy it—52 reminders a year.



Fences Cost the Least and give the most returns of any improvements on the farm

Look around and see the farmer who has money in the bank and who buys another quarter-section every few years. See his farm—it is fenced hog-tight. What is good for him is good for you. Enough feed is wasted on the average quarter-section of unfenced fields to feed a large drove of hogs.

Any American Fence dealer will quote you figures that may astonish you on fencing your farm with heavy, hog-tight fence. You have no idea how little money it takes, considering what you will actually save.

American Fence is made of hard, stiff steel. It is made of a quality of wire drawn expressly for woven-wire-fence purposes by the largest manufacturers of wire in the world. Galvanized by the latest improved process—the best that the skill and experience of years has taught. Built on the elastic, hinged-joint (patented) principle, which effectively protects the stay or upright wires from breaking under hard usage.

The real test of a fence is the service you get out of it. Test, judge and compare American Fence under any and all conditions and you will find that the steel, the structure and the galvanizing are equal in durability, strength and efficiency to the hardest usage.

F. Baackes, Vice-Pres. & Gen. Sales Agent
American Steel & Wire Co.

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NOTE—Dealers Everywhere. See the one in your town and have him show you the different designs and prices. Also get from him booklet entitled "HOW TO BUILD A CHEAP CONCRETE FENCE POST," furnished free for the asking.

NEW SEED OATS

Big Money in Oats

New Seed Oats. Big money in oats if you raise the right kind. Here's your chance to get them. Imported Canadian Seed Oats for sale; extra fine. Send for free sample. It speaks for itself. This same oats we sold last year in the United States and proved their merit and our statement that the farmers need a change of seed in this country. We make a specialty of growing extra fine seed oats on our big Canadian farm; new, clean land; no weeds. Have best known varieties. Regenerated Swedish Select went 116 bushels to acre this year; Early New Market, Canada's favorite, 110 bushels to acre. Both of these are big, early yielders. I believe it will pay you to get a change of seed. Try some of these oats. The average oats are inbred and run out. Canadian Government Grain Inspector graded this grain No. 1 White. Have stiff straw, white berry, thin husk, enormous yielder. It is as easy to put in and harvest a big crop as a small one. The reason your oat crop is not bigger is because your seed is run out. This has been proven. Look at this out. Taken from photograph of two stalks from Galloway Brothers' field, over 200 kernels to the stalk. Write early for free sample, or, send ten cents for packet. Will also send you free booklet entitled "Big Money in Oats and How to Grow Them," by Galloway Bros. and Prof. M. L. Bowman, former professor of farm crops Iowa Agricultural College. Information in this book is priceless. Get it free.

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SAVE 20% BY GRINDING

The STAR SIMPLESWEEP MILL grinds ear corn or any small grain. You get more feeding value from ground feed and your horses do the grinding. Profit comes to Star owners from both ends. Free Booklet giving prices on Sweep and Belt Powers. THE STAR MANUFACTURING CO. 11 Depot Street New Lexington, Ohio



Join Our Five Year Club

and get this handsome set of
**SIX
WILDWOOD TEASPOONS
FREE**

Reliance Plate is made by the Oneida Community and every piece is guaranteed for 10 years' wear. It is for sale by all leading jewelers (6 teaspoons for 90 cents) and in offering it to our readers we can guarantee its quality. Made on an 18 per cent Nickel Silver Base—5 oz. Silver Plate—25 per cent Heavier than Standard A1. This set of 6 teaspoons can not be sold by any one for less than 90 cents, but we will send

**The Michigan Farmer 5 Years \$2.18
and the Six Teaspoons for**

The extra amount merely covers cost of packing, postage and insured delivery.

**If you prefer we will send you this
Handsome Berry Spoon**



Length 8½; Bowl 2¼x3½ in.

**Instead of the six
Teaspoons**

It is the same design and quality and guaranteed for 10 years' wear.

For an order for 2 subscriptions (under above offer) we will give the one sending the order an extra set of 6 teaspoons or an extra berry spoon.

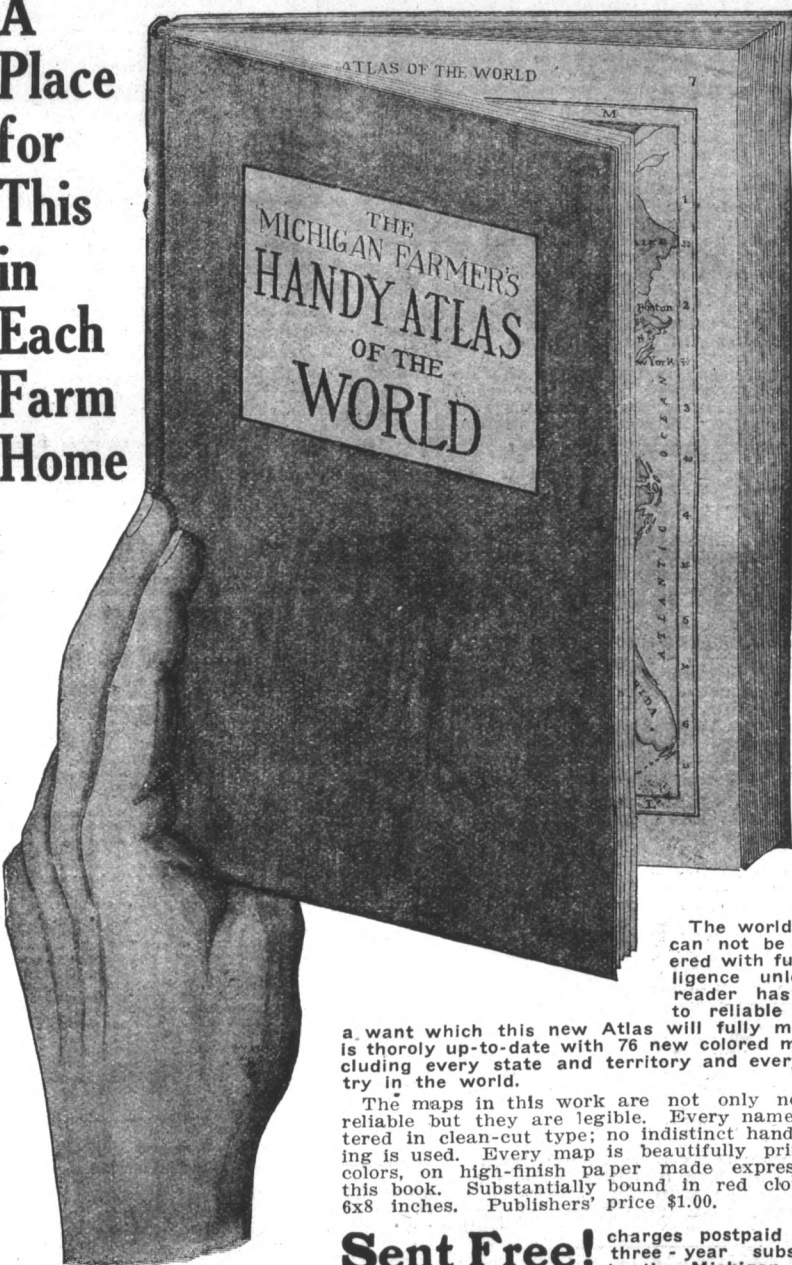
The 6 teaspoons are Premium No. 194. The berry spoon is Premium No. 195. Always mention Premium Number.

THE MICHIGAN FARMER, Detroit, Mich.

Present subscribers can order at once and have their subscriptions extended from time now paid to.



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Each
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Home**



The world's news can not be considered with full intelligence unless the reader has access to reliable maps—a want which this new Atlas will fully meet. It is thoroly up-to-date with 76 new colored maps including every state and territory and every country in the world.

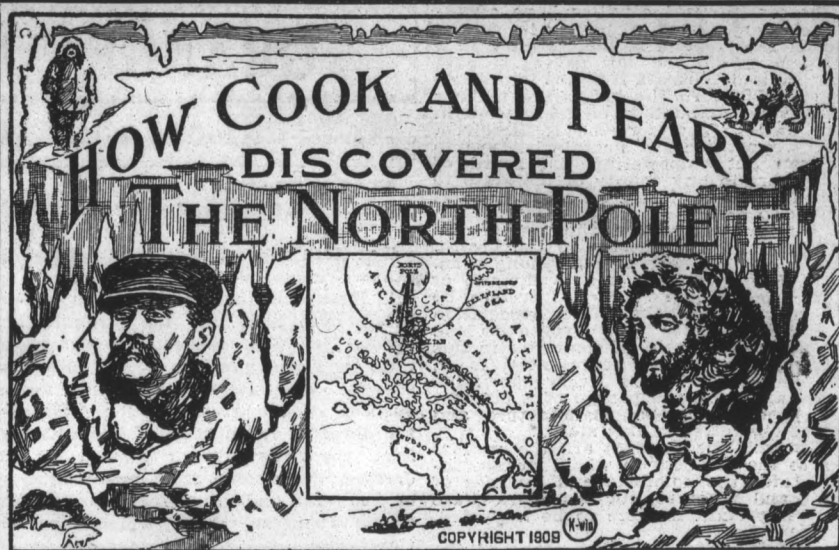
The maps in this work are not only new and reliable but they are legible. Every name is lettered in clean-cut type; no indistinct hand lettering is used. Every map is beautifully printed in colors, on high-finish paper made expressly for this book. Substantially bound in red cloth, size 6x8 inches. Publishers' price \$1.00.

Sent Free! charges postpaid with a three-year subscription to the Michigan Farmer at \$1.50 or 5 years for \$2.00; or a subscription for one year and book for \$1.00.

Give your order to any of our agents or send direct to us. In ordering mention Premium No. 196.

Agents' Notice.—This is a Class B premium.

THE MICHIGAN FARMER, Detroit, Michigan.



GET THIS GREAT SET OF POST CARDS

Not in years has the world been stirred by any event, as by the actual discovery of the North Pole, by these two venturesome Americans, and whether you believe in Cook or Peary, or both, you will be interested in this great set of descriptive postcards giving a history of both expeditions. Many of the photos were taken early in the expeditions and sent back to civilization, others obtained direct from the explorers since their return.

It is such a splendid set that we will give every one of our readers a chance to get them absolutely free. The set consists of 50 beautiful celluloid finish duotone cards with description of each scene on back of the card. Read the list.

President bidding Peary "Bring back the Pole."—Peary's good ship the "Roosevelt" and throng bidding him farewell at Oyster Bay.—The Steamer Roosevelt. The ship in which Peary sailed July, 1908, for race to the earth's top.—Peary on deck of the steamer Roosevelt just before sailing to discover the North Pole.—Capt. Bartlett and crew on the Roosevelt.—Peary in arctic dress, just as he appeared when he started to find the Pole.—Commodore Peary on Steamer Roosevelt enroute to the Pole.—Commodore Peary at work laying out his plans.—Mrs. Robt. Peary and her two children.—Peary's youngest son just prior to leaving Oyster Bay on his way to discover the Pole.—Peary and one of the Eskimo dogs on board the Roosevelt.—Peary's ship fast in ice packs in the polar region.—Almost superhuman difficulties overcome by Peary in reaching the Pole.—Halted by drifted ice.—How Peary stored provisions in his caches along his route.—Sight which brought joy to the heart of the Polar explorers.—The sun rises always on Feb. 19, after six months of night traveling under difficulties by Peary and Cook.—Peary's party in a hard climb.—Peary and the sailing master on board the Roosevelt.—The dog that helped Peary find the Pole.—Group of Peary's Eskimos.—Difficult camp in the arctic.—Steamer Roosevelt banked with snow.—Steamer Roosevelt after a hunt.—Showing animals killed on a hunting trip.—Steamer Roosevelt in the ice.—Dr. Frederick A. Cook in arctic dress.—The Steamer Bradley in ice.—Steamer John R. Bradley.—Dr. Cook starting on his dash to the Pole. Showing how the Eskimo dogs carried his food and other supplies.—Forging northward by sledges.—An Eskimo dog sledge and polar exploration.—An Eskimo man.—Ice hummocks in pathless waste.—Icebergs off of Greenland.—Greenlander Girl.—A polar camp showing snow houses such as were built by Dr. Cook.—Dr. Cook, showing how he fought hauling in a walrus. Incidents of Explorer Cook's experience in arctic region. The capture of a walrus, saving starvation to the parties.—Aluminum sledges used by Dr. Cook, for final dash.—Rudolph Franke, the last white man with Explorer Cook before he discovered the North Pole.—Dr. Cook's body guard, who were the last to be with him.—Interesting home group of Dr. Cook's wife and children.—Mrs. Marian H. Cook, wife of explorer and their children, Helen and Ruth.—Shows the Cook party, on ice floats in arctic seas.—J. R. Bradley, with supplies as he started for the Pole. How the steamer was packed with provisions and equipment.—Steamer John R. Bradley ready for the arctic voyage.—Musk ox. The animals that gave Dr. Cook food.—Showing Explorer Cook just prior to his trip to the Pole.—Dog train (Method by which Cook traveled to North Pole).—Combination picture entitled "Whose Little Girlie are you?"—Shows Peary and Cook at the North Pole hoisting the Stars and Stripes.

To Get Them Free! No matter when your subscription to the Michigan Farmer expires, send us 75 cents for one year, \$1.50 for three years, or \$2.00 for five years, and we will send you the complete set of 50 cards at once, postpaid, and extend your subscription from the time now paid to. If in sending your own order you will also get some friend who is not now taking the Farmer to order with you for a year or more we will send the cards to him, and an extra set to you for sending the order to us.

Better take advantage of this offer at once, as the demand for these cards is so great that the manufacturers will not make us any promises for prompt delivery after the first lot, which we have just received. Cook and Peary cards are Premium No. 190 and can be ordered in place of any Class A premium.

THE MICHIGAN FARMER, Detroit, Mich.



NORTH POLE

Dr. Frederick A. Cook :: Com. R. E. Peary, U.S.N.

together with biographies of the explorers and a brief history of Arctic discovery

ERNEST INGERSOLL

WITH NEW MAPS

ILLUSTRATIONS FROM PHOTOGRAPHS

An Authentic Account of the Cook and Peary Expeditions

By
**Dr. Frederick A. Cook &
Com. R. E. Peary, U. S. N.**

Together with Biographies
of the explorers and a brief
history of Arctic Discovery

BY
ERNEST INGERSOLL.

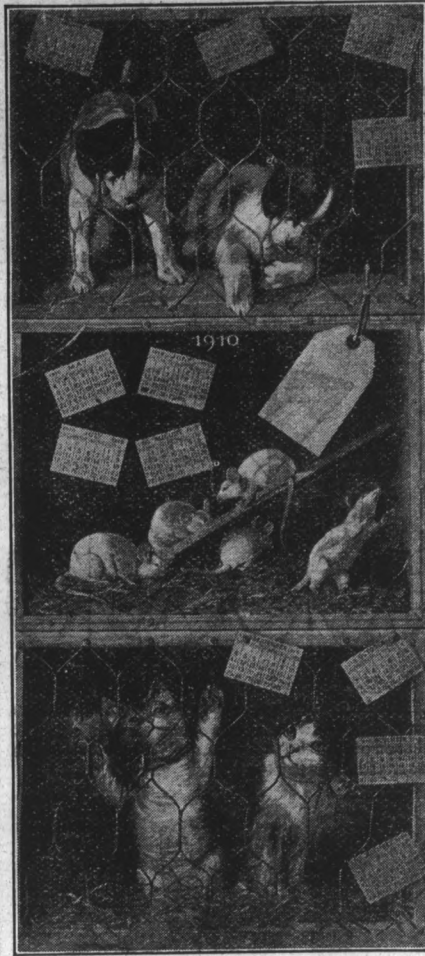
**Fully Illustrated
New Maps in Colors**

This interesting and valuable book will be sent free (post paid) with the Michigan Farmer one year at 75 cents; three years at \$1.50, or five years at \$2.00. With a three or five-year subscription we will also include a set of 50 Post Cards of the two expeditions. The book is Premium Number 192. The post cards are Premium Number 190. Be sure to mention premium wanted. If preferred we will send the post cards with a year's subscription instead of the book.

THE MICHIGAN FARMER, Detroit, Mich.

Agents' Notice.—Both premiums are Class A.

OUR HANDSOME 1910 ART CALENDER.



The Season's Calendar Hit.

A very beautiful lithographic reproduction in 11 colors and gold after the original oil painting by the celebrated domestic animal painter, E. Johnson King of New York.

"Between Two Fires"

represents three cages, the center one containing a family of white mice endeavoring to escape to the outer world thru the glass front; all unconscious of the danger which awaits them from the puppies and kittens above and below, should they succeed. Both the puppies and the kittens show their anxiety to become more closely acquainted with their neighbors.

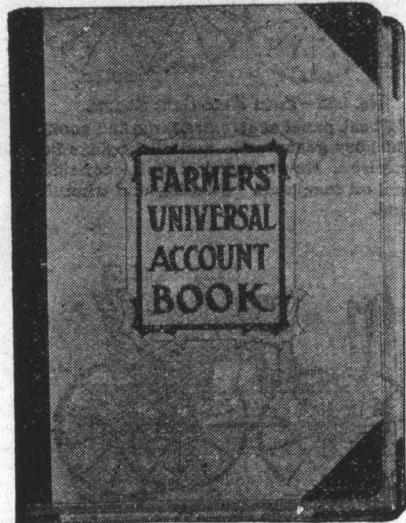
FOLDING PANEL DESIGN
Size 11 x 23 Inches.

We have just received a large edition of these beautiful calendars, and as long as the supply lasts will send one free (post paid) with each subscription to the Michigan Farmer at 75 cents for one year; \$1.50 for three years, or \$2.00 for five years. Request must be made when order is sent.

Send your order at once to make sure of getting one. Be sure to mention Premium Number 193.

Agents' Notice.—The Calendar is a Class A premium. It is not given away in addition to other premiums. It is an expensive piece of work and well up in value with other Class A premiums.

THE MICHIGAN FARMER, Detroit.



The Simplest, The Most Practical, and The Best FARMERS' ACCOUNT BOOK

ever published. Better than books costing five times the price, and so simple and practical that every farmer can keep a complete record of his business and tell how he stands at any time. No knowledge of debits and credits necessary. Every record on a bought and sold basis. Size of book 8½x12 inches, well printed, and bound like cut. Several pages of valuable rules, tables, and other useful information for the farmer.

This book is free with a three-year subscription at \$1.50, or a five-year subscription at \$2.00. It is a Class B Premium No. 197. Postage paid. Cash price 50c.

THE MICHIGAN FARMER,
Detroit, Michigan.



LOOK AT THE CUT!

You see what will make a Safety Razor out of your own unsafe razor with the little device you cannot cut yourself while shaving. and it only costs 30c.

There are other kinds similar but not as good. This safety appliance fits any kind or size razor. It is made on a scientific plan. It is all right for what it is for, a safety guard, easily put on and off and cleaned, and we sell it for only 30 cents, (regular price 50 cents,) postage paid, or will send one with one of our imported German razors both for \$1.00, postage paid, or will send one free by mail with one-year subscription at 75c, or a three-year subscription at \$1.50, or a five-year subscription at \$2.00. It is a Class A premium.



The Eighth Great Wonder of the World

But More Useful to you than any of the others

AN AUTOMATIC RAZOR SHARPENER

It Renders Honing Forever Needless.

It will take a dull razor and make it even better than when new. Two of the editors of this paper are using one and they each paid \$3.50 for theirs. They thought that our readers ought to know about them, so we arranged to buy them in quantities and offer them to those of our subscribers who want them. We are not allowed to sell them for less than the regular price, \$3.50, but we are allowed to throw in a year's subscription to the paper with every sharpener and will pay delivery charges.

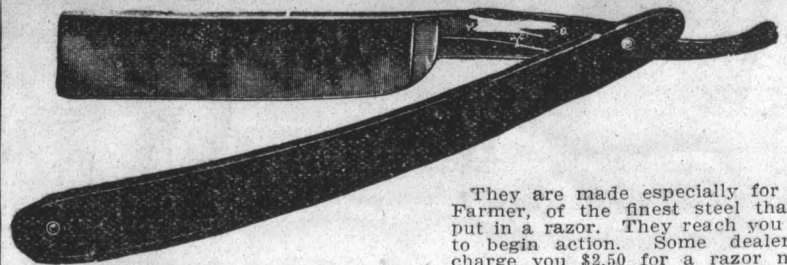
They are simple, practical and a comfort to the person who shaves. They will sharpen any kind of razor, the safety included. Don't get this MARVEL SHARPENER confused with the cheaper kinds on the market.

Full directions with each. The price may seem high, but remember you have an article that will hone a dull razor and keep it in perfect shaving order for life. There is no possibility of cutting the strop. A child can operate it.

Present subscribers may have their term advanced one year or the paper may be sent to another address, or if you prefer, we will, in place of the paper, send FREE ONE OF OUR 75 CENT GERMAN IMPORTED RAZORS—none better. You may never know what a good shave is until you use one of these marvel sharpeners. They are in no way complicated. You simply slip the razor in, give the strop 10 to 20 pulls, and your razor is in perfect condition.

THE MICHIGAN FARMER, Detroit, Mich.

Shaving a Pleasure With This Razor



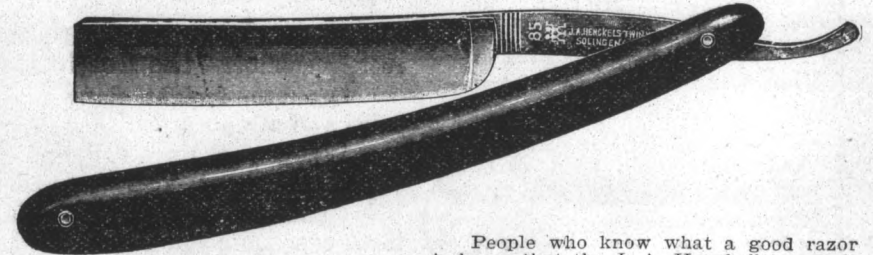
They are made especially for Michigan Farmer, of the finest steel that can be put in a razor. They reach you all ready to begin action. Some dealers would charge you \$2.50 for a razor no better.

Don't let the low price scare you. Each razor fully guaranteed. There can be nothing better in a razor, regardless of price. Once over will make your face as smooth as a baby's. We are enthusiastic about them because we use one and know whereof we speak. Order one at once, 75c postage paid; 10c extra if registered. With The Farmer, one year, \$1.25; 3 years, \$2.00; 5 years, \$2.50.

EVERYBODY SPEAKS HIGHLY OF OUR RAZOR.

The razor received all O. K. I am very much pleased with it. I think it is equal to one my brother-in-law paid \$1.50 for.—Wm. A. Bevins.

A HENCKEL'S RAZOR.



People who know what a good razor is know that the J. A. Henckel's razor is the best made. There was never a Henckel's razor sold for less than \$2.00 and often they sell for \$3.00. By buying 1,000 of them we got them so that we can sell them to our subscribers for \$1.50 each.

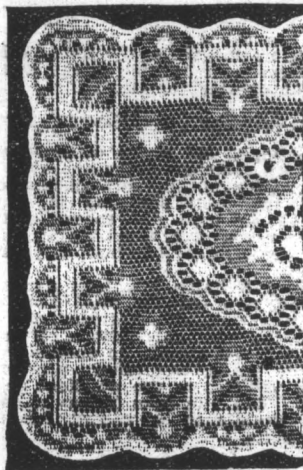
J. A. Henckel's works was established in 1731. They have gained a great reputation all over the world. You can rest assured that there is nothing finer made than the Henckel's razor. At the St. Louis Exposition in 1904 the Henckel razors were awarded the highest diplomas for excellence of goods in quality and workmanship. We absolutely guarantee these razors in every way, and those of our subscribers who wish a nice, smooth shave can have it and at a price that is less than they can buy the same thing for elsewhere.

THE MICHIGAN FARMER, DETROIT, MICH.

HANDSOME LACE SCARF.

This Scarf is almost an exact reproduction of the genuine lace and is more durable. Can be used as a cover for bureaus, dressers, tables, drophead sewing machines, back of lounges, pianos, as a curtain for small windows and in many other ways.

They are imported from St. Gaul, Switzerland. After the lot we have is exhausted we doubt if we will be able to get another importation, so order at once if you want one.



This cut shows one end of the Scarf. Exact size of Scarf is 15½ inches by 46 inches.

One of these scarfs will be sent free, postage paid, with a one-year subscription at 75 cents, a three-year subscription at \$1.50 or a five-year subscription for \$2.00. Cash price 50 cents. It is a Class A premium.

The following are samples of many letters we have received:

"Your handsome lace scarf received. Will say it is all you claim for it. It is a beauty. Accept thanks. From your friend and well wisher."—John C. Cady, Mt. Clemens, Mich.

"The lace scarf came today and is very nice. Many thanks."—Wilson Bros., Tecumseh, Mich. Address all orders to THE MICHIGAN FARMER, Detroit.

THE IMP



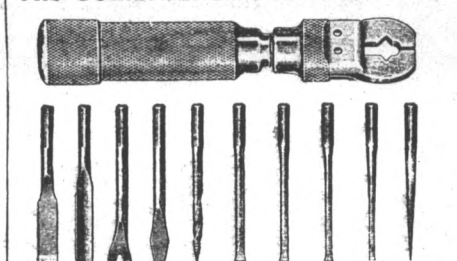
Do Your Own Soldering With a

Gasoline Blow Torch

Not a toy, but a practical torch of small size, which will do as much work as a large one. For any purpose where cheap, clean, and intense heat is desired—either in hand work or bench. Perfectly safe and cannot get out of order. All brass and nickel plated. Starts with a match, has no pump or valve, is entirely automatic and burns with a perfect Bunsen flame of over 2,000 degrees Fahrenheit, for two hours on one filling. FREE for four subscriptions to Michigan Farmer for one year. Michigan Farmer for one year, and blow torch, \$1.75, and any Class A Premium. Postage paid.

MICHIGAN FARMER,
Detroit, Michigan.

The Combination Tool You Need



It is so handy every man, boy and housewife wants one when they see this convenient, light and strong combination tool.

Handle and pin vise made from solid bar steel body. Sleeve knurled so will not slip in the hand. Consists of set of ten oil-tempered well finished, forged steel tools adapted for mechanics' use. Indispensable in the household or on carpenter's bench.

Chisel, gouge, screw driver, gimlet scratch and brad awls, etc., held in the cap screw handle. Sent free for a club of three subscriptions to the Michigan Farmer either one year at 75 cents, three years at \$1.50, or five years at \$2.00. They will count the same if in combination with other papers. The subscribers will all get a regular premium free as well. Cash price 90 cents delivered.

Send orders to the Michigan Farmer.

A 90 Per Cent Investment

At 75c a year the Michigan Farmer would cost for five years, \$3.75. We offer it to you now five years for only \$2.00 and offer two Class A or one Class B premium thrown in. We will guarantee the price will never be less and it is very likely to be higher if postage advances as President Taft has recommended.

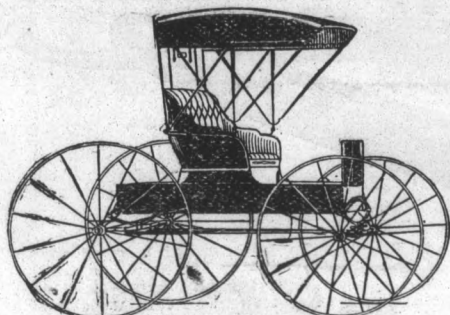
Concrete Construction on the Farm.

This book is fully illustrated and is invaluable to persons thinking of building anything with cement. Contains full instructions how to build silos, walks, floors, bridges, cistern, all kinds of outhouses, hog and poultry houses, etc.

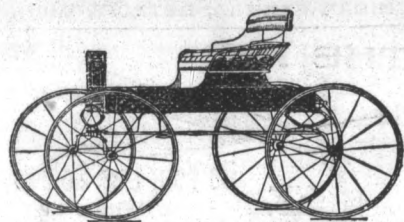
We send this book FREE with a one year's subscription at 75c. It is a Class A Premium. Cash price 25c. Postage paid.



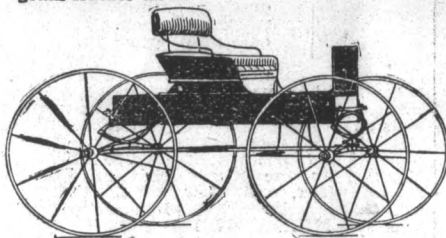
No. 149—New Autostyle Buggy.
Twin Auto-Belgian type seat with large, round corners and beautiful curves. Handsome, stylish, comfortable. All wrought gear and best second growth hickory gear woods. Axles arch, high arch or very high arch as desired. Soft, easy-riding springs, oil tempered. 2,500-mile, long distance dust-proof axles. Our A-grade select hickory wheels and high bend select white hickory shafts with 36-inch leather tips. Latest auto design top with "automobile" leather. Painting and trimming optional.



No. 60—Two-in-One Auto Seat Buggy.
The quick shift top can be detached in 30 seconds, leaving handsome and stylish runabout. Great buggy for liveries and for use where it is impossible to keep both a top and an open buggy. Best second growth frame and hardwood bottom boards will give unlimited service.



No. 329—The New Yorker.
Entire job is constructed of best and most expensive material obtainable. High, square arch axles; special hand forged wrought steel braces; special stop circle; oil tempered open head springs, rubber, with brass bearing; 1½ inch Kelly Springfield tires; hand sewed, hair stuffed cushions; thick velvet padded carpet; grain leather dash.



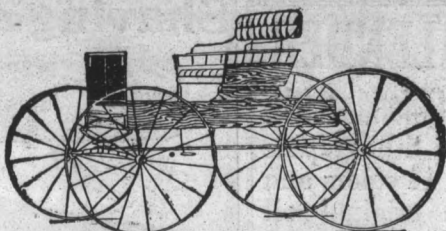
No. 40—Pony Runabout.
Built to fit ponies of any size. Full wrought gear and best hardwood frame construction. Banded wood hub wheels. Heavy broadcloth, whipcord or leather trimming. Painting optional.



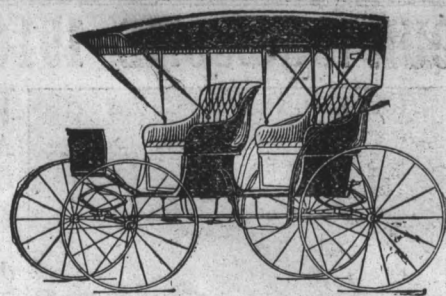
No. 277½—Pony Phaeton.
Body constructed of finest imported German reed woven on hand forged wrought iron frame. Stylish, handsome, durable, and like the rest of our pony work, a job in which grown-ups as well as children can ride with comfort.



Kalamazoo Holdfast Storm Blankets are made by us complete in our own mills. We make our own kersey, kersey lining, etc. Dependable blankets, the very best that skill, money and knowledge of the business can produce.



No. 363—Finished in Natural Wood
both inside and out. New style seat; double rails framed with mortised spindles. Forged steel mountings. Best easy-riding springs.



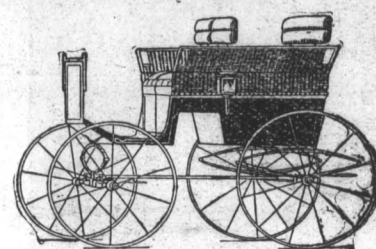
No. 367—Belgian Auto Seat Surrey.
Auto top with brass nuts, knobs and front moulding. Best heavy broadcloth or M. B. leather trimming. Select hickory gear, wheels and shafts. Painting as desired.



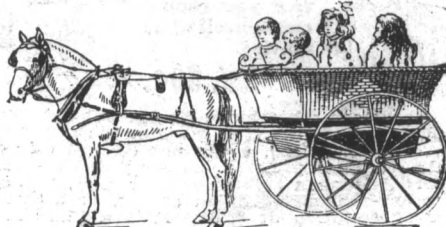
No. 151—Special Belgian Auto Seat Buggy.
This is just like the No. 149 New Autostyle buggy shown above except that it has straight instead of divided back. "Auto" top, full wrought gear. Finish—the best.



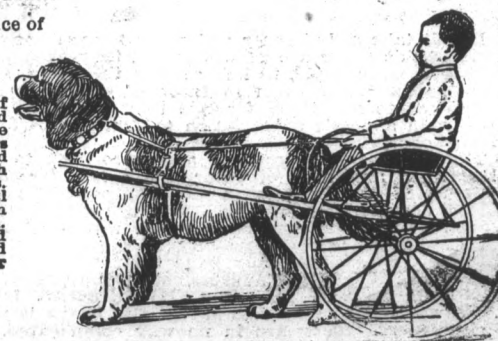
No. 362—Twin Auto Seat Buggy.
Solid bent panel seat, extra large and roomy. Best hickory gear woods, and all forgings best Norway iron. New arch axles. Soft, easy-riding springs, oil tempered. Painting and trimming optional.



No. 269—Pony Trap.
The handsomest pony trap ever built. Hardwood body with panels built of finest German imported reed. Can be used either all facing front or dos-a-dos. We build this trap to fit ponies of all sizes from 43 to 55 inches.



Who Wants Bonnie Boy?
This shows one of the ponies from our herd of over 200 of the finest Shetlands in the country. The cart is the best style built for children's use—the Governess Cart. It is stylish and easy riding. Almost any number of children can pile into one of them and ride with comfort. You can't tip one over. Painting and trimming optional.



No. 252—Dog or Goat Cart.
23-inch wheels, half oval tires, shaved spokes, bent white ash shafts and bars bolted and riveted together with wrought iron braces. Single plate special steel spring. All iron work XO plated. Nice upholstered panel seat. Finished in natural wood, or vermilion.



No. 20—Speed Sleigh.
A sample of our line of 40 business and pleasure sleighs. We use in their manufacture strictly air-seasoned and bone-dry lumber, single-ply panels and dashes. Our gears are heavily ironed and braced and nothing but Norway iron bolts and rivets are used. Our cushions and backs are padded with curled hair or cotton, not excelsior, and are trimmed in velvet, plush or broadcloth. Each cutter is subjected to a most careful inspection at all stages of its construction.

Buggy Buyers, Don't Be Deceived!

When a price is quoted you on a buggy from the factory direct, remember—the freight is seldom included.

Often the freight alone makes the difference between a low price and a high price.

When you buy a Reliable Michigan Buggy of your local vehicle merchant, you have no freight to pay.

Quality for quality, the reliable Michigan dealer in your home town can quote you just as low prices as anybody can by mail.

And your local merchant—a man whom you know—a business man of standing in your own community—is always there to make good any statement he makes concerning our reliable Michigan vehicle—or that you read in our advertisements.

You have a claim on us not only for 30 days or a year, but at any time after you buy the vehicle, if it develops a defect in workmanship or material.

You do not buy a vehicle "sight unseen" when you buy of your local Reliable Michigan merchant. Go to his salesroom and examine on his floor the splendid types of

The Reliable Michigan Line of Buggies and Pleasure Vehicles

You can see for yourself the fashionable styles—right down to the minute—the perfect finish that distinguishes the Reliable Michigan vehicle. You can see the exclusive points of construction that make the Reliable Michigan the most durable in the world by the actual test of time.

256 Styles to Choose From

We make 256 styles of buggies and pleasure vehicles—every approved type, and scores of our own exclusive design. So well equipped is our big factory to turn out special patterns that we can easily furnish you, through your dealer, a vehicle built to your own order.

Every Reliable Michigan dealer has our big new catalog, filled from cover to cover with illustrations from photographs, with descriptions of our entire line—256 models to choose from.

Your dealer can obtain any one of these vehicles in the quickest possible time. The Michigan Buggy Company has established a record for quick shipments.

Leaders for 26 years

The Reliable Michigan vehicles have been leaders for 26 years.

We make 35,000 vehicles a year—more exclusively pleasure vehicles than any other firm in the world. Why is this? It is because Reliable Michigan vehicles have stood the test for more than a quarter of a century. There are Reliable Michigan Buggies of the first year's output in actual use today—some in daily use in liveries that were sold over 15 years ago.

We Mill Our Own Lumber

We buy our lumber as it stands in the trees and mill it in the forest—hickory—poplar—maple—ash—every stick of timber we use. The selection is made by a master lumberman, who accepts only the high-grade goods used in the Michigan line.

Our lumber is air seasoned, under cover, protected from the weather, from 12 to 20 months before using.

After it is air dried we always kiln dry it to avoid any possible chance of shrinkage.

Although vehicles are finished in our big factory on an average of one every five minutes, it is three years from tree to finished vehicle—so thorough are our methods.

We build every vehicle, from the ground up, in our own shops. Many of our best workmen have been with us more than 25 years.

We Set Our Tires "The Good Old-Fashioned Way"

Every tire is fitted to its own wheel, welded by a ponderous machine, built especially for the purpose, heated by a specially constructed oven, whereby the tire is made to revolve, insuring even heating and even contraction. By this method, and no other, can good results be obtained—no "Cold Tire Setting." We turn out over 100,000 wheels every year—yet we received not one tire complaint last year.

In Reliable Michigan vehicles so closely are iron and wood glued and screwed that it is impossible for water to get between, no matter how much washing is done.

Painting Takes 100 Days

Every vehicle receives at least four coats of body filler and a rub-down with pumice stone, three coats of color and a rub-down with pumice stone, a coat of varnish and a rub-down with pumice stone. The process takes from 75 to 100 days, according to the vehicle.

If you do not find Michigan vehicles in your town, send us your buggy dealer's name, and we will send you our handsomely illustrated Catalog "A" showing our line.

We also make the famous Tony Pony line of vehicles for children. We send pony, harness and cart complete. Our ponies are all thoroughbred Shetlands—gentle—and city broken. The carts can't tip over.

In writing be sure to state whether you want Catalog "A" on buggies and pleasure vehicles, or Booklet "B" on the Tony Pony line.

MICHIGAN BUGGY CO.

50 Office Building

Kalamazoo, Mich.

The Holdfast Storm and Stable Blankets are manufactured by us. The same assurance of quality goes with these blankets as with the Reliable Michigan Vehicles.